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

FORM 10-K

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2021

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 600, Los Angeles, CA 90024
(Address of Principal Executive Offices and 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	**Trading Symbol**	**Name of each exchange on which registered**
Common Stock, $0.001 par value per share	CDXC	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
- if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. ☐ Yes ☑ No
- 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 ☐ No
- 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 ☐ No
- 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	Non-accelerated filer	Smaller reporting company	Emerging growth company
☐	☐	☑	☑	☐

- if an emerging growth company, if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐
- whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐
- whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). ☐ Yes ☑ No

As of June 30, 2021, 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 $473.5 million, based on the closing price of the registrant's common stock on the NASDAQ Capital Market on June 30, 2021.

Number of shares of common stock of the registrant outstanding as of March 9, 2022: 68,309,365.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's proxy statement (Proxy Statement) to be filed with the Securities and Exchange Commission (SEC) pursuant to Regulation 14A in connection with the registrant's 2022 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, 2021.

CHROMADEX CORPORATION
ANNUAL REPORT ON FORM 10-K
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PART I

CAUTIONARY NOTICE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (Form 10-K) contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (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 "anticipates," "believes," "could," "estimates," "expects," "intends," "may," "plans," "potential," "possible," "probable," "seeks," "predicts," "projects," "should," "will," "continue," "would" or the negative of these terms, and similar expressions that convey uncertainty of 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, the impact of the COVID-19 pandemic on our business and operations, as well as the business or operations of our suppliers, customers, manufacturers, research partners and other third parties with whom we conduct business; our relationships with major customers; our ability to maintain our sales, marketing, and distribution capabilities; a decline in general economic conditions nationally and internationally; the market and size of the vitamin mineral and dietary supplement market; 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; our reliance on of a limited number of third-party party suppliers for certain raw materials; 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.

SUMMARY OF RISK FACTORS

Below is a summary of the principal factors that make an investment in our common stock speculative or risky. This summary does not address all of the risks that we face. Additional discussion of the risks summarized in this risk factor summary, and other risks that we face, can be found below under the heading "Item 1A - Risk Factors" in Part I of this Form 10-K and should be carefully considered, together with other information in this Form 10-K and our other filings with the Securities and Exchange Commission (SEC), before making an investment decision regarding our common stock.

- The COVID-19 pandemic has adversely affected, and is expected to continue to pose risks to, our business, results of operations, financial condition and cash flows, and other epidemics or outbreaks of infectious diseases may have a similar impact.
- Global, market and economic conditions may negatively impact our business, financial condition and share price.
- 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.
- Interruptions in our relationships or declines in our business with major customers could materially harm our business and financial results.
- Our future success largely depends on sales of our TRU NIAGEN® product.
- 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.
- 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.
- Many of our competitors are larger and have greater financial and other resources than we do.
- Our operating results may fluctuate significantly as a result of a variety of factors, many of which are outside of our control.
- 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.
- Our failure to establish and maintain effective internal control over financial reporting could result in material misstatements in our financial statements, our failure to meet our reporting obligations and cause investors to lose confidence in our reported financial information, which in turn could cause the trading price of our common stock to decline.
- Our business could be negatively impacted by cyber security threats, including without limitation a material interruption to our operations including our clinical trials, harm to our reputation, significant fines, penalties and liabilities, breach or triggering of data protection laws, privacy policies and data protection obligations, or a loss of customers or sales.
- 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 may incur material product liability claims, which could increase our costs and adversely affect our reputation, revenues and operating income.
- We utilize ingredients and components for our products from foreign suppliers, and may be negatively affected by the risks associated with international trade and importation issues.
- We rely on single or a limited number of third-party suppliers for the raw materials required to produce our products.
- 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 patents and licenses may be subject to challenge on validity grounds, and our patent applications may be rejected.

- 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.
- We are currently engaged in substantial and complex litigation with Elysium Health, Inc. and Elysium Health LLC (collectively, "Elysium"), the outcome of which could materially harm our business and financial results.
- 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.
- Compliance with stringent and changing global privacy and data security laws and regulations could result in additional costs and liabilities to us or inhibit our ability to collect and, if applicable, process data globally, and the failure or perceived failure to comply with such laws and regulations could have a material adverse effect on our business, financial condition or results of operations.
- The market price of our common stock may be volatile and adversely affected by several factors.
- 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 a significant number of outstanding options and unvested restricted stock units. Future sales of these shares could adversely affect the market price of our common stock.
- We may become involved in securities class action litigation that could divert management's attention and harm our business.

Item 1. Business

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

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 (Merger Agreement), by and among Cody, CDI Acquisition, Inc., a California corporation and wholly-owned subsidiary of Cody (Acquisition Sub), and ChromaDex, Inc. (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 bioscience company dedicated to healthy aging. 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. On January 15, 2021, Healthspan Research LLC was dissolved. Prior to its dissolution, Healthspan Research, LLC contributed its assets and liabilities to ChromaDex, Inc.

Company Overview

ChromaDex is a global bioscience company dedicated to healthy aging. Our team, which includes world-renowned scientists, is pioneering research pertaining to nicotinamide adenine dinucleotide (NAD+) which is found in every cell of human bodies and levels of which decline with age.

NAD+ is an essential coenzyme, a key regulator of cellular metabolism and is required for mitochondria to function efficiently. Best known for its role in cellular energy 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. There are other factors linked to NAD+ depletion, including poor diet, excess alcohol consumption and a number of disease states. NAD+ levels may also be increased, including through calorie restriction, moderate exercise and supplementation with NAD+ precursors, such as nicotinamide riboside (NR). Healthy aging, mitochondrial health and NAD+ continue to be areas of focus in the research community. To date, there are over 450 published human clinical studies related to NAD+ and its impact on health. Areas of study include understanding NAD+'s role in Alzheimer's disease, Parkinson's disease, neuropathy, sarcopenia, liver disease and heart failure.

In 2013, we commercialized NIAGEN®, a proprietary form of NR, a novel form of vitamin B3. Data from numerous preclinical studies, and confirmed in human clinical trials, show that NR is a highly efficient NAD+ precursor that significantly raises blood and tissue NAD+ levels. NIAGEN® is safe for human consumption. NIAGEN® has twice been successfully reviewed under the United States (U.S.) Food and Drug Administration's (FDA) new dietary ingredient (NDI) notification program, it has been successfully notified to the FDA as generally recognized as safe (GRAS), and has been approved by Health Canada, the European Commission and the Therapeutic Goods Administration of Australia. Clinical studies of NIAGEN® have demonstrated a variety of outcomes including increased NAD+ levels, altered body composition, increased cellular metabolism and increased cellular energy production. NIAGEN® is protected by patents to which we are the owner or have exclusive rights.

ChromaDex is among the world leaders in the emerging NAD+ space. We have amassed more than 245 research 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. Additional 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 discoverer of NR as a NAD+ precursor and chair of the Department of Diabetes & Cancer Metabolism at the City of Hope National Medical Center, Dr. Rudy Tanzi, the co-chair of the department of neurology at Harvard Medical School, 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, Dr. Brunie Felding, Associate Professor, Department of Molecular Medicine at Scripps Research Institute, California Campus, and Dr. David Katz, the Founder and former director of Yale University's Yale-Griffin Prevention Research Center; President and Founder of the non-profit True Health Initiative; and Founder and Chief Executive Officer of Diet ID, Inc.

STRATEGIC SHIFT TO GLOBAL CONSUMER PRODUCT COMPANY

In 2017, ChromaDex made the strategic decision to commercialize TRU NIAGEN® as a consumer brand for the product containing NIAGEN® ingredient. This marked our strategic shift from an ingredient testing company to a global bioscience company dedicated to healthy aging.

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 2018. In 2018, we also launched TRU NIAGEN® in New Zealand with retail partner Matakana Superfoods as well as in Canada by making it available at www.truniagen.ca and to healthcare practitioners at Fullscript Canada after receiving regulatory approval for sale as a natural health product from Health Canada. In 2019, we received approval from the Australian Therapeutic Goods Association (TGA) for use in listed complementary medicines. With TGA approval we extended our partnership with our New Zealand partner, Matakana Superfoods, to also include Australia. In 2020, we received approval of NR as a novel food ingredient for use in food supplements from the European Commission, which followed a positive opinion from the European Food Safety Authority in 2019. We are currently selling on Amazon in Canada, Japan, the United Kingdom, Germany, France, Italy, Spain, Poland, Netherlands and Sweden and selling cross-border in China on Tmall, JD.com and Wechat. Additionally, in June 2021, we began distributing Tru Niagen® in 3,800+ U.S. Walmart stores. We continue to focus on expanding marketing and distribution of our TRU NIAGEN® brand in new strategic international markets, domestic channels, and secure regulatory approvals needed to accomplish the same.

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 2018, we entered into a supply agreement with Nestlé, pursuant to which Nestlé is 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 $4.0 million. In 2020, we received an additional one-time fee of $1.0 million, following the launch of the products in the United States.

We are a leading provider of research and quality-control products and services to the natural products and life science industries. Through our analytical reference standards and services segment, customers worldwide in the dietary supplement, food and beverage, cosmetic, pharmaceutical, and life science 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.

For the years ended December 31, 2021 and 2020, our net sales were approximately $67.4 million and $59.3 million, respectively. The following table summarizes total net sales for each of our business segments in the last two years. Please refer to Item 8 Financial Statements and Supplementary Data of this Form 10-K for additional financial information about each of our business segments.

	Year Ended December 31,	
(In thousands)	**2021**	**2020**
Consumer Products Segment	$ 56,705	$ 47,090
Ingredients Segment	7,407	9,198
Analytical Reference Standards and Services Segment	3,337	2,969
Total net sales	$ 67,449	$ 59,257

Business Market

According to the data from Global Wellness Institute, the global wellness industry market was approximately $4.4 trillion in 2020 amidst the disruptions of COVID-19, which is down from $4.9 trillion in 2019. In 2020, the Personal care, beauty and anti-aging market was approximately $960 billion, healthy eating, nutrition and weight loss was approximately $950 billion and traditional and complementary medicine market was approximately $410 billion. The Global Wellness Institute projects the overall wellness economy to grow approximately 10% annually, or 60% in total, from 2020 to 2025, with most segments projected to exceed GDP growth.

According to the data from Grand View Research, the global dietary supplements market size was estimated at $140 billion in 2020, and is expected to grow at a compound annual growth rate of 8.6% to about $271 billion by 2028.

Business Model

CONSUMER PRODUCTS SEGMENT

Our principal objective is to sell and increase awareness of TRU NIAGEN® to consumers worldwide. As one of the world leaders in the emerging NAD+ space and the science of healthy aging, we continuously strive to evolve our TRU NIAGEN® products with the aim of potentially improving consumers health by safely raising NAD+ levels. Further, we seek to continue exploration, discovery and enhancement of patented technologies. The TRU NIAGEN® brand is built on scientific evidence, trust and the direct impact to our consumers of aging better.

We intend to expand to the worldwide NAD+-related healthy aging market by entering into new international markets. We maintain our focus of obtaining additional regulatory approvals required to expand marketing and distribution efforts of our TRU NIAGEN® products in new international markets. We will utilize our proprietary e-commerce platforms, and the e-commerce and brick and mortar platforms of strategic regional and local partners. Our U.S. based business will continue to support our global operations through the following:

- Corporate development and strategy
- Research and development activities
- Global premium brand management and brand guidelines
- Multi-platform global marketing campaigns and know-how
- Propriety e-commerce platform and data analytics
- Global manufacturing and supply chain operations management

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 intend to continue to sell NIAGEN® in ingredient form to our strategic partners. In addition, we expect to 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 we create value throughout the supply chain of the dietary supplements, functional foods, life science research, personal care markets and associated analytical testing laboratories. We intend to 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.

Products and Services Overview

Current products and services provided are as follows:

CONSUMER PRODUCTS

- *TRU NIAGEN® branded dietary supplements.* We currently offer our NIAGEN® NR through our TRU NIAGEN® finished bottles and TRU NIAGEN® Stickpacks. We will continue to build TRU NIAGEN® as a global brand and offer TRU NIAGEN® to consumers worldwide.

INGREDIENTS

- *Nicotinamide riboside NIAGEN®.* We intend to 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 supporting 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 are used for research and quality control in the dietary supplements, cosmetics, food and beverages, life science, and pharmaceutical industries. In addition, we provide research services for customers exploring the frontier of natural product research and development. We assist by providing unique and well-characterized natural products, in the format of botanical libraries or as requested on custom "Scope of Work" requests.

Major Customers

For the years ended December 31, 2021 and 2020, we had one major customer which accounted for more than 10% of our total net sales. A.S. Watson Group, a related party, accounted for approximately 13.8% and 13.0% of our net sales for the years ended December 31, 2021 and 2020, respectively.

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.

Impact of COVID-19

The worldwide outbreak of COVID-19 continues to drive global uncertainty and disruption, which has created headwinds for our business. Authorities have imposed, and businesses and individuals have implemented, numerous measures to try to contain the virus or treat its impact, such as travel bans and restrictions, quarantines, shelter-in-place/stay-at-home and social distancing orders, store closures and reduced operating hours, and vaccine requirements. These measures have impacted and may further impact our workforce and operations and those of our respective suppliers and partners.

In particular, we have experienced, and could in the future experience, global supply chain delays including challenges with transportation, logistics and production lead-times, as well as labor shortages and cost inflation. In the first quarter of 2021, we experienced delays due to global components and packaging shortages for our consumer products across our supply chain. These challenges were addressed in the second quarter and we have otherwise not encountered any major disruptions in our supply chain. It is our intention to maintain adequate safety stocks to support our growth and we currently believe we have adequate inventory on hand to meet current demands. We will continue to monitor the situation closely as conditions may become more challenging due to ongoing and uncertain economic factors. Additionally, our sales to partners in international markets have been impacted by the effects of COVID-19.

Our primary focus throughout the COVID-19 pandemic has remained ensuring the health and safety of our employees through office closures or implementing enhanced safety protocols to ensure the well-being of our employees. We have adapted to the new environment and been able to successfully conduct business virtually.

The degree to which COVID-19 impacts our results will depend on future developments, which are highly uncertain and cannot be predicted, including the duration and severity of the pandemic; surges related to new variants; the actions taken to contain the virus or treat its impact; other actions taken by governments, businesses, and individuals in response to the virus and resulting economic disruption; and how quickly and to what extent normal economic and operating conditions can resume. Additional impacts and risks may arise that we are not aware of or able to respond to effectively. We are similarly unable to predict the extent of the impact of the pandemic on our customers, suppliers, and other partners, but a material effect on these parties could also materially adversely affect us. The impact of COVID-19 can also exacerbate other risks discussed in this Risk Factors section and throughout this report.

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 affiliate marketing, influencers, paid spokespersons and talent, events and trade shows, 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.

United States of America:

For our consumer products segment, we distribute our TRU NIAGEN® products direct to consumers through our propriety e-commerce platform TRUNIAGEN.com, Amazon, Walmart.com and other established internet marketplaces. In June 2021, we began distributing Tru Niagen® in 3,800+ Walmart stores across the U.S. We also have specialty retailers and direct healthcare practitioners who are authorized resellers of TRU NIAGEN® in the United States.

For our ingredients segment and analytical reference standards and services segment, we use a direct marketing approach in the United States. to promote our products and services.

International:

For our consumer products segment, we utilize strategic partners on a regional or local country basis to expand our distribution of TRU NIAGEN® products. Our strategic partnerships include brick and mortar, e-commerce channels or a combination of both. With our strategic partners, we currently distribute TRU NIAGEN® products to the following international markets:

- Hong Kong (A.S. Watson Group);
- Macau (A.S. Watson Group);
- Singapore (A.S. Watson Group);
- New Zealand (Matakana Superfoods);
- Canada (Amazon, Fullscript Canada and www.truniagen.ca);
- Australia (Matakana Superfoods);
- China (Tmall, JD.com and Wechat);
- Japan (Amazon);
- United Kingdom (Amazon);
- Germany (Amazon);
- France (Amazon);
- Italy (Amazon);
- Spain (Amazon);
- Poland (Amazon);
- Netherlands (Amazon); and
- Sweden (Amazon).

We continue to focus on obtaining additional regulatory approvals required to expand marketing and distribution of our TRU NIAGEN® brand in new strategic international markets.

For our ingredients segment, currently our customers are primarily based in the United States and Europe.

For our analytical reference standards and services segment outside of the United States, we use international distributors to market and sell to several foreign countries or markets.

Sales and marketing expense for the years ended December 31, 2021 and 2020, were approximately $28.4 million and $20.9 million, respectively.

Research and Development

The ChromaDex External Research Program (CERP) is an essential component of our research and development platform. CERP was established to advance the science of nicotinamide riboside and other ChromaDex products. We value and encourage strong scientific rigor behind our products and have cultivated relationships with academic institutions in pursuit of this. Thus far, CERP has achieved over 245 research partnership agreements 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. Additional relationships are currently being developed.

To date, over 200 peer-reviewed studies have been published on the science behind NR, including its NAD+ boosting properties. CERP has produced more than 45% of all peer-reviewed NR-focused publications and 70% of the peer-reviewed clinical NR publications so far. To date, 20 peer-reviewed human clinical trials have been published on our proprietary ingredient NIAGEN® demonstrating its safety and/or efficacy through CERP. No adverse effects have been attributed to NIAGEN® in any of the published clinical trials. In both 2015 and 2018, NIAGEN® was successfully notified to the FDA as an NDI. NIAGEN® was also successfully notified to FDA as Generally Recognized as Safe in August 2016.

Through our research and development laboratory in Longmont, Colorado, we intend to develop and evaluate products that we plan to take to market as well as explore cost saving processes for existing products. Research and development costs for the years ended December 31, 2021 and 2020, were approximately $3.8 million and $3.4 million, respectively.

Working Capital

ChromaDex's working capital as of December 31, 2021 and 2020 was approximately $8.4 million and $4.9 million, respectively. We measure working capital by adding trade receivables and inventories, and subtracting accounts payable. Our working capital is primarily comprised of assets and liabilities related to our consumer products segment and ingredients segment as the operations require a large amount of inventory on hand. As the consumer products segment and ingredients segment grow, more working capital will likely be needed to support the operations.

Government Regulation

Some of our operations are subject to regulation by various U.S. federal agencies and similar state and international agencies, including, but not limited to, the FDA, the Federal Trade Commission (FTC), the Department of Commerce, the Department of Transportation and the Department of Agriculture. 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 materially increase our cost of doing business or may limit or expand 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 required changes to our operations and increased compliance costs.

U.S. FDA Regulation

In the U.S., dietary supplements and food are subject to FDA regulations under the Federal Food, Drug and Cosmetic Act (FDCA). Areas addressed in these regulations include:

- product safety;
- product testing;
- ingredient testing;
- documentation process, batch records, specifications;

- product labeling;
- manufacturing facility registration;
- product manufacturing and storage;
- product claims, advertising and promotion;
- product sales and distribution; and
- product post-market surveillance.

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 U.S. 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 U.S. before October 15, 1994) is subject to an 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 objection to such evidence could render products containing such dietary ingredients to be adulterated. The FDA is in the process of finalizing guidance for the industry that will aim to clarify the agency'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 U.S., the product either must be approved by the FDA as a food additive pursuant to a food additive petition 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 voluntarily notify the FDA of its own self-determination. There can be no assurance that the FDA will approve any food additive petition for any ingredient that we may want to commercialize, or agree with our determination that an ingredient is GRAS, either of which could impact 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 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 over-the-counter drugs.

Additionally, state attorney's general and private plaintiff attorneys also regulate the advertising of dietary supplements, foods, cosmetics, and over-the-counter drugs through enforcement of state consumer protection laws. State attorney's general and, to a larger extent, private lawyers specializing in consumer class action litigation have instituted numerous enforcement actions against dietary supplement companies for failure to adequately substantiate claims made in advertising, for the use of false or misleading advertising claims, for underdosed products that don't meet label claims and allegations related to product safety. These actions have often resulted in consent decrees and the payment of civil penalties, restitution, or both, by the companies involved. We are not aware of, or party to, any action by a state attorney general or consumer class action involving our products.

Further, 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. Most countries, in particular major markets, have established regulations for (a) authorizing the introduction of novel ingredients to market in the food and/or dietary/food/health supplement sectors and (b) for allowing finished goods to be placed on the market for consumer access. Typically, novel ingredients must go through an extensive safety review process (similar to the NDI notification process in the U.S.) by a regulatory or scientific authoritative body. Finished products typically must either be notified or registered (a limited approval process) with the relevant authorities. In some cases, new products can be brought to market without notifying the authorities.

The time required to obtain approval by a foreign country may be longer or shorter than that required for the FDA notification process, 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 of foods/food supplements 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 novel foods or new dietary ingredients.

Regulation in other major and established markets, including Canada, Japan, Brazil and Australia all maintain and enforce a clear regulatory framework for novel ingredients and dietary supplements (or their equivalent).

Competitive Business Conditions

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

We also 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 Indirect Competitors

- Royal DSM (the Netherlands)
- Glanbia plc (Ireland)
- BASF (Germany)
- Lonza Group Ltd (Switzerland)
- Sabinsa Corporation (India/U.S.)

For the analytical reference standards and services segment, we face competition within the standardization and quality testing niche of the markets we serve. Below is a current list of certain competitors. These competitors have already developed reference standards or services or are currently taking steps to develop them. 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

- MilliporeSigma (U.S.)
- LGC Standards Ltd. (U.K.)
- US Pharmacopoeia (U.S.)
- Extrasynthese (France)

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.

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

Patent Number	Title	Filling Date	Issued Date	Expires	Licensor
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	6/24/2026	Licensed from Washington University
7,846,452	Potent immunostimulatory extracts from microalgae	7/28/2005	12/7/2010	7/28/2025	Licensed from University of Mississippi
8,106,184	Nicotinyl Riboside Compositions and Methods of Use	11/17/2006	1/31/2012	9/20/2027	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	1/5/2026	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	8/18/2025	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	4/20/2006	6/12/2012	11/19/2026	Licensed from Dartmouth College
8,252,845	Pterostilbene as an agonist for the peroxisome proliferator-activated receptor alpha isoform	2/1/2012	8/28/2012	8/18/2025	Licensed from the University of Mississippi and U.S. Department of Agriculture
8,383,086	Nicotinamide Riboside Kinase compositions and Methods for using the same	4/12/2012	2/26/2013	4/20/2026	Licensed from Dartmouth College
8,809,400	Method to Ameliorate Oxidative Stress and Improve Working Memory Via Pterostilbene Administration	8/8/2011	8/19/2014	10/2/2028	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	9/23/2014	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	6/3/2025	Licensed from Washington University
9,000,147	Nicotyl riboside compositions and methods of use	1/17/2012	4/7/2015	11/17/2026	Licensed from Cornell University
9,028,887	Method improve spatial memory via pterostilbene administration	5/22/2014	5/12/2015	6/10/2028	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	6/3/2025	Licensed from Washington University
9,321,797	Nicotyl riboside compositions and methods of use	11/17/2014	4/26/2016	11/17/2026	Licensed from Cornell University
9,439,875	Anxiolytic effect of pterostilbene	5/11/2011	9/13/2016	12/11/2031	Licensed from the University of Mississippi and U.S. Department of Agriculture
9,975,915	Crystalline forms of nicotinoyl ribosides, modified derivatives thereof, and phosphorylated analogs thereof, and methods of preparation thereof	11/10/2017	5/22/2018	11/10/2037	Co-owned with The Queen's University of Belfast and exclusively licensed by ChromaDex
10,000,519	Methods of Preparing Nicotinamide Riboside and Derivatives Thereof	7/24/2014	6/19/2018	7/24/2034	Licensed from The Queen's University of Belfast
10,000,520	B-vitamin and amino acid conjugates of nicotinoyl ribosides and reduced nicotinoyl ribosides, derivatives thereof, and methods of preparation thereof	3/16/2017	6/19/2018	3/16/2037	Co-owned with The Queen's University of Belfast and exclusively licensed by ChromaDex

Patent Number	Title	Filling Date	Issued Date	Expires	Licensor
10,183,036	Use of nicotinic acid riboside or nicotinamide riboside derivatives, and reduced derivatives thereof, as NAD+ increasing precursors	4/20/2017	1/22/2019	4/20/2037	Owned by ChromaDex
10,280,190	Nicotinic acid riboside or nicotinamide riboside compositions, reduced derivatives thereof, and the use thereof to enhance skin permeation in treating skin conditions	3/16/2016	5/7/2019	5/31/2036	Co-owned with The Queen's University of Belfast and exclusively licensed by ChromaDex
10,688,118	Nicotinamide riboside compositions for topical use in treating skin conditions	10/30/2014	6/23/2020	4/6/2035	Owned by ChromaDex
10,689,411	Efficient and scalable syntheses of nicotinoyl ribosides and reduced nicotinoyl ribosides, modified derivatives thereof, phosphorylated analogs thereof, adenylyl dinucleotide conjugates thereof, and novel crystalline forms thereof	11/10/2017	6/23/2020	11/10/2037	Co-owned with The Queen's University of Belfast and exclusively licensed by ChromaDex
10,815,262	Methods of preparing nicotinamide riboside and derivatives thereof	2/27/2018	10/27/2020	7/24/2034	Licensed from The Queen's University of Belfast
10,857,172	Use of nicotinamide riboside, nicotinic acid riboside, and nicotinamide mononucleotide, reduced nicotinyl compounds, and nicotinoyl compound derivatives in infant formula for healthy development	4/14/2017	12/8/2020	4/14/2037	Owned by ChromaDex
10,934,322	B-vitamin and amino acid conjugates of nicotinoyl ribosides and reduced nicotinoyl ribosides, derivatives thereof, and methods of preparation thereof	5/11/2018	3/2/2021	3/16/2037	Co-owned with The Queen's University of Belfast and exclusively licensed by ChromaDex
11,033,568	Nicotinamide riboside compositions for topical use in treating skin conditions	6/3/2020	6/15/2021	10/30/2034	Owned by ChromaDex
11,071,747	Use of NAD precursors for breast enhancement	11/29/2017	7/27/2021	11/29/2037	Licensed from University of Iowa
11,214,589	Crystalline forms of nicotinoyl ribosides and derivatives thereof, and methods of preparation thereof	12/10/2019	1/4/2022	8/16/2040	Owned by ChromaDex
11,242,364	Efficient and scalable syntheses of nicotinoyl ribosides and reduced nicotinoyl ribosides, modified derivatives thereof, phosphorylated analogs thereof, adenylyl dinucleotide conjugates thereof, and novel crystalline forms thereof	5/18/2021	2/8/2022	11/10/2037	Co-owned with The Queen's University of Belfast and exclusively licensed by ChromaDex

Manufacturing

We currently utilize third-party manufacturers to produce NR, encapsulate and bottle NR sold as a dietary supplement and produce and supply other ingredients, products, and services. Following the receipt of products or product components from third-party manufacturers, we 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 work with manufacturing companies that can meet the standards imposed by the FDA, the International Organization for Standardization and the quality standards that we require for our own internal policies and procedures. We 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.

W.R. Grace & Co. -Conn. (Grace) is the Company's exclusive manufacturer for the supply of NR. Effective as of August 2, 2021, we entered into a Seventh Amendment (Seventh Amendment) to the Manufacturing and Supply Agreement (such agreement as amended, the "Grace Manufacturing Agreement"), originally effective in January 2016 with Grace. In January 2019, Grace was issued patents related to the manufacturing of the crystalline form of NR. Pursuant to the Seventh Amendment, the Grace Manufacturing Agreement expires on June 30, 2023, subject to its further renewal to be negotiated by the parties.

Sources and Availability of Raw Materials

For all three business segments, and subject to the risks related to our Company and our business recited below, 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.

Environmental Compliance

We incur significant expense in complying with Good Manufacturing Practices and safe handling and disposal of materials used in our research and manufacturing activities. For the years ended December 31, 2021 and 2020, these expenses totaled approximately $1.7 million and $1.5 million, respectively. We do not anticipate incurring additional material expense to comply with federal, state and local environmental laws and regulations.

Backlog Orders

For our consumer products segment where we ship products internationally to distributors, 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, 2021 we did not have any significant backlog orders from the distributors that have not 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. These orders amount to approximately $20,000 or less. Because we list over 3,000 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 two to four weeks.

Culture and Workforce

We're a company of curious, talented, and passionate people who are devoted to health, well-being, and improving the way people age. We embrace collaboration and creativity and encourage the iteration of ideas to address complex challenges in all aspects of our business.

We believe our people are critical for our success. We are dedicated to providing an environment where ChromaDex employees can have fulfilling careers, and be happy, healthy and productive. We offer attractive wage and benefit packages to take care of the needs of our employees and their families. Our competitive compensation and dynamic culture help us to attract and retain top candidates. We continue to invest in recruiting and rewarding talented people.

ChromaDex and its employees are dedicated to diversity, inclusion, and fairness. We celebrate personal authenticity and expression as a catalyst to advance human health and innovation. We support healthy, open dialogue and we communicate information about the company through multiple internal channels to our employees. As of December 31, 2021, ChromaDex had 115 full-time employees.

Facilities

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

Available Information

Our 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 SEC. This information is also available in print to any stockholder who requests it, with any such requests addressed to ChromaDex Corporation, 10900 Wilshire Blvd. Ste 600, 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 a 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 occur, our business, financial condition, results of operations and our future growth prospects would likely 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

The COVID-19 pandemic has adversely affected, and is expected to continue to pose risks to, our business, results of operations, financial condition and cash flows, and other epidemics or outbreaks of infectious diseases may have a similar impact.

As previously disclosed, we face risks related to the ongoing COVID-19 pandemic, including the emergence of new variant strains with varying degrees of resistance to vaccines, and these variant strains' impacts. COVID-19 has spread across the globe since 2020 and is impacting economic activity worldwide. COVID-19 has caused supply chain and market disruptions and volatility in the global capital markets, and has caused an economic slowdown. In response to COVID-19, national and local governments around the world have instituted certain measures, including travel bans, prohibitions on group events and gatherings, shutdowns of certain businesses, curfews, shelter-in-place orders, vaccine mandates and recommendations to practice social distancing. The duration of these measures is unknown, may be extended and additional measures may be imposed, in light of the recent surge in cases, which could negatively impact our sales volumes.

The potential effects of COVID-19 include, but are not limited to, the following:

- Reduced consumer and investor confidence, instability in the credit and financial markets, volatile corporate profits, and reduced business and consumer spending due to economic uncertainty, which may adversely affect our results of operations by reducing our sales, margins and/or net income as a result of a slowdown in customer orders.
- Reduced demand for our products due to store closures and reduced operating hours of our customers.
- Disruptions in supply chain, leading to inadequate levels of inventory that may lower our sales.

For example, our retail business, including sales to A.S. Watson group and other partners in international markets, has been impacted by the effects of COVID-19, due to strict government lockdowns, store closures and reduced operating hours. Additionally, global supply chains have increasingly been impacted by COVID-19, including challenges with transportation, logistics and production lead-times, as well as labor shortages and cost inflation.

To the extent the COVID-19 pandemic adversely affects our business, results of operations, financial condition and cash flows, it may also heighten many of the other risks described in this section. The ultimate impact of COVID-19 on our business, results of operations, financial condition and cash flows is dependent on future developments, including the duration of the pandemic and the related length of its impact on the global economy, which are uncertain and cannot be predicted at this time.

Global, market and economic conditions may negatively impact our business, financial condition and share price.

Concerns over inflation, geopolitical issues, the U.S. financial markets, foreign exchange rates, capital and exchange controls, unstable global credit markets and financial conditions and the COVID-19 pandemic, have led to periods of significant economic instability, declines in consumer confidence and discretionary spending, diminished expectations for the global economy and expectations of slower global economic growth going forward, and increased unemployment rates. Our general business strategy may be adversely affected by any such economic downturns, volatile business environments and continued unstable or unpredictable economic and market conditions. If these conditions continue to deteriorate or do not improve, it may make any necessary debt or equity financing more difficult to complete, more costly and more dilutive. In addition, there is a risk that one or more of our current or future service providers, manufacturers, suppliers and other partners could be negatively affected by difficult economic times, which could adversely affect our ability to attain our operating goals on schedule and on budget or meet our business and financial objectives.

In addition, we face several risks associated with international business and are subject to global events beyond our control, including war, public health crises, such as pandemics and epidemics, trade disputes, economic sanctions, trade wars and their collateral impacts and other international events. Any of these changes could have a material adverse effect on our reputation, business, financial condition or results of operations. There may be changes to our business if there is instability, disruption or destruction in a significant geographic region, regardless of cause, including war, terrorism, riot, civil insurrection or social unrest; and natural or man-made disasters, including famine, flood, fire, earthquake, storm or disease. In February 2022, armed conflict escalated between Russia and Ukraine. The sanctions announced by the U.S. and other countries, following Russia's invasion of Ukraine against Russia to date include restrictions on selling or importing goods, services or technology in or from affected regions and travel bans and asset freezes impacting connected individuals and political, military, business and financial organizations in Russia. The U.S. and other countries could impose wider sanctions and take other actions should the conflict further escalate. It is not possible to predict the broader consequences of this conflict, which could include further sanctions, embargoes, regional instability, geopolitical shifts and adverse effects on macroeconomic conditions, currency exchange rates and financial markets, all of which could impact our business, financial condition and results of operations.

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 $27.1 million and $19.9 million for the years ended December 31, 2021 and 2020, respectively. As of December 31, 2021, our accumulated deficit was approximately $169.0 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, 2021, our cash and cash equivalents totaled approximately $28.2 million. While we anticipate that our current cash, cash equivalents and cash to be generated from net sales will be sufficient to meet our projected operating plans through at least the next twelve months and have an available line of credit up to $10.0 million from Western Alliance Bank, we may require additional funds, either through additional equity or debt financings, including pursuant to the At Market Issuance Sales Agreement, dated as of June 12, 2020, with B. Riley FBR, Inc. and Raymond James & Associates, Inc. (ATM Facility), 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. Further, as a result of the COVID-19 pandemic and actions taken to slow its spread, the global credit and financial markets have experienced extreme volatility, including diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. There can be no assurance that further deterioration in credit and financial markets and confidence in economic conditions will not occur. If equity and credit markets deteriorate, it may make any necessary debt or equity financing more difficult to obtain, more costly and/or more dilutive. 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.

Our material cash requirements will depend on many factors.

Our material cash 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.

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.

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

A.S. Watson Group accounted for approximately 14% of our sales during the year ended December 31, 2021. 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.

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. For example, the COVID-19 pandemic and actions taken to slow its spread, have caused the global credit and financial markets to experience extreme volatility, including diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. 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.

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, we may not be successful in developing our consumer product business for sales of TRU NIAGEN® products, and our sales may decrease despite us incurring increased costs related to marketing such products.

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.

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.

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 on terms favorable to us. As further described in Note 15, Commitments and Contingencies — Contingencies in the Notes to the Consolidated Financial Statements, included in Part II, Item 8 of this Form 10-K, we are currently involved in substantial and complex litigation. 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.

Risks Related to our Operations

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

We depend greatly on the collective services of Frank L. Jaksch Jr., Robert N. Fried, Kevin M. Farr and William Carter, who are our Executive Chairman of the Board, Chief Executive Officer, Chief Financial Officer and Senior Vice President of Business Affairs, 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.

For example, our operating results may be harmed by the effect of the COVID-19 pandemic on global economic conditions. 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 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.

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.

We may bear financial risk if we underprice 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 underprice 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 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. Due to COVID-19, most of our employees have been working remotely from home and we have depended on communication tools and remote connections to our information technology systems to conduct business virtually. If we were to experience a prolonged disruption in our information systems that involve interactions amongst employees as well as 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.

Our failure to establish and maintain effective internal control over financial reporting could result in material misstatements in our financial statements, our failure to meet our reporting obligations and cause investors to lose confidence in our reported financial information, which in turn could cause the trading price of our common stock to decline.

Maintaining effective internal control over financial reporting is necessary for us to produce reliable and timely financial statements and disclosures. If we identify material weaknesses in our internal controls and/or fail to establish and maintain effective controls and procedures and internal control over financial reporting it could result in material misstatements in our financial statements and/or a failure to meet our reporting and financial obligations, each of which could have a material adverse effect on our financial condition and the trading price of our common stock.

We are subject to financial and operating covenants in our business financing agreement with Western Alliance Bank, as amended (Credit Agreement) and any failure to comply with such covenants, or obtain waivers in the event of non-compliance, could limit our borrowing availability under the Credit Agreement, resulting in our being unable to borrow under the Credit Agreement and materially adversely impact our liquidity. In addition, our operations may not provide sufficient cash to meet the repayment obligations of debt incurred under the Credit Agreement.

The Credit Agreement contains affirmative and restrictive covenants, including covenants regarding delivery of financial statements, maintenance of inventory, payment of taxes, maintenance of insurance, dispositions of property, business combinations or acquisitions and incurrence of additional indebtedness, among other customary covenants, in each case subject to limited exceptions.

There can be no assurance that we will be able to comply with the financial and other covenants in the Credit Agreement, and the effects of COVID-19 may make it more difficult for us to comply with such covenants. Our failure to comply with these covenants could cause us to be unable to borrow under the Credit Agreement and may constitute an event of default which, if not cured or waived, could result in the acceleration of the maturity of any indebtedness then outstanding under the Credit Agreement, which would require us to pay all amounts then outstanding. If we are unable to repay those amounts, Western Alliance Bank could proceed against the collateral granted to them to secure that debt, which would seriously harm our business. Such an event could materially adversely affect our financial condition and liquidity. Additionally, such events of non-compliance could impact the terms of any additional borrowings and/or any credit renewal terms. Any failure to comply with such covenants may be a disclosable event and may be perceived negatively. Such perception could adversely affect the market price for our common stock and our ability to obtain financing in the future.

Our business could be negatively impacted by cyber security threats, including without limitation a material interruption to our operations including our clinical trials, harm to our reputation, significant fines, penalties and liabilities, breach or triggering of data protection laws, privacy policies and data protection obligations, or a loss of customers or sales.

In the ordinary course of our business, we may collect, process, store and transmit proprietary, confidential and sensitive information, including personal information (including health information), intellectual property, trade secrets, and proprietary business information owned or controlled by ourselves or other parties. We use our data centers and our networks, and those of third parties, to store and access our proprietary business and other sensitive information. We and the third parties upon which we relay may face various cyber security threats, which are prevalent and continue to increase, including cyber security attacks to our information technology infrastructure and attempts by others to gain access to our proprietary or sensitive information. Due to COVID-19, there may be additional cyber security threats as most of our employees work from home, utilizing network connections outside of the Company premises. Information security risks have significantly increased in recent years in part due to the proliferation of new technologies and the increased sophistication and activities of organized crime, hackers, data and related privacy breaches, terrorists and other external parties, including foreign private parties and state and state-sponsored actors. Any of the previously identified or similar threats could cause a security incident or other interruption. A security incident or other interruption could result in unauthorized, unlawful, or accidental acquisition, modification, destruction, loss, alteration, encryption, disclosure of, or access to data. A security incident or other interruption could disrupt our ability (and that of third parties upon whom we rely) to provide our products and services.

Despite the implementation of preventative and detective security measures designed to protect against security incidents, there can be no assurance that these measures will be effective and our internal computer systems and those of our current and any future contractors, consultants, collaborators and third-party service providers, are vulnerable to damage or interruption from a variety of sources, including malicious code (such as computer viruses and worms) software bugs, personnel misconduct or error, other unauthorized access, software or hardware failures, server malfunctions, accidental acts or omissions by those with authorized access, natural disasters, terrorism, war, telecommunication and electrical failure, and cybersecurity threats (including the deployment of harmful malware, ransomware, denial-of-service attacks (such as credential stuffing), supply chain attacks, social engineering, and other means to affect service reliability and threaten the confidentiality, integrity, and availability of information). Ransomware attacks, including those from organized criminal threat actors, nation-states and nation-state supported actors, are becoming increasingly prevalent and severe and can lead to significant interruptions, delays, or outages in our operations, disruption of clinical trials, loss of data (including data related to clinical trials), loss of income, significant extra expenses to restore data or systems, reputational loss and the diversion of funds. To alleviate the financial, operational and reputational impact of a ransomware attack it may be preferable to make extortion payments, but we may be unwilling or unable to do so (including, for example, if applicable laws or regulations prohibit such payments).

The procedures and controls we use to monitor these threats and mitigate our exposure may not be sufficient to prevent all security incidents. These incidents could result in disrupted operations, including suspension of our clinical trial activities, lost opportunities, misstated financial data, liability for stolen assets or information, theft of our intellectual property, loss of data and other personally identifiable or sensitive information, increased costs arising from the implementation of additional security protective measures, litigation and reputational damage. We may expend significant resources, fundamentally change our business activities and practices, or modify our operations, including our clinical trial activities, or information technology in an effort to protect against security incidents and to mitigate, detect, and remediate actual and potential vulnerabilities.

An actual or perceived security incident suffered by us or by a third party upon whom we rely may result in: government enforcement actions that could include investigations, fines, penalties, audits and inspections; additional reporting requirements and/or oversight; temporary or permanent bans on all or some processing of personal data (which could impact our clinical trials); or orders to destroy or not use personal data. Further, individuals, clinical trial participants or other relevant stakeholders could sue us for our actual or perceived failure to comply with our security obligations, including, without limitation, in class action litigation. These proceedings could force us to spend money in defense or settlement, divert management's time and attention, increase our costs of doing business, adversely affect our reputation or otherwise adversely affect our business. Security incidents could also result in indemnity obligations, negative publicity and financial loss. Security incidents and vulnerabilities may cause some of our customers and users to stop using our services and our failure, or perceived failure, to meet expectations with regard to the security, integrity, availability and confidentiality of our network systems and sensitive data could damage our reputation and affect our ability to retain customers, attract new customers and grow our business. Moreover, security incidents can result in the diversion of funds and interruptions, delays, or outages in our operations and services, including due to ransomware attacks and denial-of-service attacks. Failures or significant downtime of our information technology or telecommunication systems or those used by our third-party service providers could cause significant interruptions in our operations and adversely impact the confidentiality, integrity and availability of sensitive or confidential information, including preventing us from conducting clinical trials, tests or research and development activities and preventing us from managing the administrative aspects of our business.

Any remedial costs or other liabilities related to security incidents may not be fully insured or indemnified by other means. Additionally, some applicable federal, state and foreign laws may require companies to notify individuals of security breaches involving particular personally identifiable information, which could result from breaches experienced by us or by our vendors, contractors, or organizations with which we have relationships. Notifications and follow-up actions related to a security breach are costly, and the disclosures or the failure to comply with such requirements could lead to adverse consequences and could impact our reputation or cause us to incur significant costs, including legal expenses and remediation costs.

Risks Related to Our Products

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 ingredients classified as dietary supplements, or natural health products, and, in most cases, are not 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 utilize ingredients and components for our products from foreign suppliers, and may be negatively affected by the risks associated with international trade and importation issues.

We utilize ingredients and components for a number of our products from suppliers outside of the United States. 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, health epidemics affecting the region of such suppliers, including COVID-19, nonconformity to specifications or laws and regulations, tariffs, trade and/or labor 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 U.S. governments, our suppliers and our company.

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.

In addition, we have a supply agreement with Nestec Ltd. pursuant to which it is our exclusive customer for NIAGEN® for human use in the medical nutritional and functional food and beverage categories in certain territories. We may never achieve technical feasibility under the supply agreement with Nestec Ltd., and therefore our sales and profit expectations resulting from this agreement may be reduced.

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 result in substantial sales losses.

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.

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 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, health epidemics affecting the region of such suppliers (including the coronavirus), 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. Due to COVID-19, there may be delays in shipments from our suppliers. 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. 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. For example, W.R. Grace & Co.-Conn. (Grace) is the exclusive manufacturer to us for the supply of NR. There is no guarantee that we will be able to continue to contract with Grace for the supply of NR, or that such terms will be favorable to us.

Risks Related to our Intellectual Property

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 nor can we be certain we will prevail in an appeal. If one or more of those patents, patent applications, licenses and other intellectual property rights are invalidated, rejected or found unenforceable and we are unable to reverse that finding through an appeal, 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 ingredients and/or 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 are currently engaged in substantial and complex litigation with Elysium Health, Inc. and Elysium Health LLC (collectively, "Elysium"), the outcome of which could materially harm our business and financial results.

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 Note 15, Commitments and Contingencies — Legal Proceedings in the Notes to the Consolidated Financial Statements, included in Item 8 of Part II 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. 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.

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.

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 Good Manufacturing Practices, and other 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. 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, or 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 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.

Compliance with stringent and changing global privacy and data security laws and regulations could result in additional costs and liabilities to us or inhibit our ability to collect and, if applicable, process data globally, and the failure or perceived failure to comply with such laws and regulations could have a material adverse effect on our business, financial condition or results of operations.

We collect, receive, store, process, use, generate, transfer, disclose, make accessible, protect and share personal information and other sensitive information, including but not limited to proprietary and confidential business information, trade secrets, intellectual property, information we collect about patients in connection with clinical trials, and sensitive third-party information necessary to operate our business, for legal and marketing purposes. Accordingly, we are, or may become, subject to numerous federal, state, local, and foreign data privacy and security laws, regulations, guidance and industry standards as well as external and internal privacy and security policies, contracts and other obligations that apply to the processing of personal data by us and on our behalf. The legal framework for the collection, use, safeguarding, sharing, transfer and other processing of information worldwide is rapidly evolving and may remain unsettled for the foreseeable future.

Outside the United States, an increasing number of laws, regulations, and industry standards apply to data privacy and security. For example, the European Union's General Data Protection Regulation (GDPR) and the United Kingdom's GDPR (UK GDPR) imposes strict obligations on the processing of personal data, including, without limitation, personal health data, and the free movement of such data. The GDPR imposes data protection obligations on processors and controllers of personal data, including, for example, obligations relating to: processing health and other sensitive data; obtaining consent of individuals; providing notice to individuals regarding data processing activities, and responding to data subject requests. Under the GDPR and UK GDPR, government regulators may impose temporary or definitive bans on data processing, as well as fines of up to 20 million euros or 4% of annual global revenue, whichever is greater. Further, individuals may initiate litigation related to our processing of their personal data.

Certain jurisdictions have enacted data localization laws and cross-border personal data transfer laws. For example, absent appropriate safeguards or other circumstances, the GDPR generally restricts the transfer of personal data to countries outside of the EEA, such as the United States, which the European Commission does not consider to provide an adequate level of data privacy and security. The European Commission released a set of "Standard Contractual Clauses" that are designed to be a valid mechanism by which entities can transfer personal data out of the EEA to jurisdictions that the European Commission has not found to provide an adequate level of protection. Currently, these Standard Contractual Clauses are a valid mechanism to transfer personal data outside of the EEA. The Standard Contractual Clauses, however, require parties that rely upon that legal mechanism to comply with additional obligations, such as conducting transfer impact assessments to determine whether additional security measures are necessary to protect the at-issue personal data. Moreover, due to potential legal challenges, there exists some uncertainty regarding whether the Standard Contractual Clauses will remain a valid mechanism for transfers of personal data out of the EEA. In addition, laws in Switzerland and the UK similarly restrict transfers of personal data outside of those jurisdictions to countries such as the United States that do not provide an adequate level of personal data protection.

If we cannot implement a valid compliance mechanism for cross-border data transfers, we may face increased exposure to regulatory actions, substantial fines, and injunctions against processing or transferring personal data from Europe or elsewhere. The inability to import personal data to the United States could significantly and negatively impact our business operations, including by limiting our ability to conduct clinical trial activities in Europe and elsewhere; limiting our ability to collaborate with parties that are subject to European and other data privacy and security laws; or requiring us to increase our personal data processing capabilities and infrastructure in Europe and/or elsewhere at significant expense.

Additionally, in the United States, federal, state, and local governments have enacted numerous data privacy and security laws, including data breach notification laws, personal data privacy laws, and consumer protection laws. The California Consumer Privacy Act of 2018 (CCPA) imposes obligations on businesses to which it applies. These obligations include, but are not limited to, providing specific disclosures in privacy notices and affording California residents certain rights related to their personal data. The CCPA allows for statutory fines for noncompliance (up to $7,500 per violation). In addition, it is anticipated that the California Privacy Rights Act of 2020 (CPRA), effective January 1, 2023, will expand the CCPA. For example, the CPRA establishes a new California Privacy Protection Agency to implement and enforce the CPRA, which could increase the risk of an enforcement action. Other states have enacted data privacy laws. For example, Virginia passed the Consumer Data

Protection Act, and Colorado passed the Colorado Privacy Act, both of which differ from the CPRA and become effective in 2023. If we become subject to new data privacy laws, at the state level, the risk of enforcement action against us could increase because we may become subject to additional obligations, and the number of individuals or entities that can initiate actions against us may increase (including individuals, via a private right of action, and state actors). In addition, data privacy and security laws have been proposed at the federal, state, and local levels in recent years, which could further complicate compliance efforts.

Our obligations related to data privacy and security are quickly changing in an increasingly stringent fashion, creating some uncertainty as to the effective future legal framework. Additionally, these obligations may be subject to differing applications and interpretations, which may be inconsistent or in conflict among jurisdictions. Preparing for and complying with these obligations requires us to devote significant resources (including, without limitation, financial and time-related resources). These obligations may necessitate changes to our information technologies, systems, and practices and to those of any third parties that process personal data on our behalf. In addition, these obligations may require us to change our business model. Collectively, these laws may increase our compliance costs and potential liability. Although we endeavor to comply with our published policies, other documentation, and all applicable privacy and security laws, we may at times fail to do so or may be perceived to have failed to do so. Moreover, despite our efforts, our personnel or third parties upon whom we rely may fail to comply with such obligations, which could negatively impact our business operations and compliance posture. For example, any failure by a third-party processor to comply with applicable law, regulations, or contractual obligations could result in adverse effects, including inability to operate our business and proceedings against us by governmental entities or others. If we fail, or are perceived to have failed, to address or comply with obligations related to data privacy and security, we could face government enforcement actions that could include investigations, fines, penalties, audits and inspections; additional reporting requirements and/or oversight; temporary or permanent bans on all or some processing of personal data; orders to destroy or not use personal data; and imprisonment of company officials. Further, individuals or other relevant stakeholders could sue us for our actual or perceived failure to comply with our data privacy and security obligations, including, without limitation, in class action litigation. Any of these events could have a material adverse effect on our reputation, business, or financial condition, and could lead to a loss of actual or prospective customers, collaborators or partners; interrupt or stop clinical trials; result in an inability to process personal data or to operate in certain jurisdictions; limit our ability to develop or commercialize our products; or require us to revise or restructure our operations. Moreover, such suits, even if we are not found liable, could be expensive and time-consuming to defend and could result in adverse publicity that could harm our business or have other material adverse effects. Additionally, we expect that there will continue to be new proposed laws and regulations concerning data privacy and security, and we cannot yet determine the impact such future laws, regulations and standards may have on our business.

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 arbitration, or other adverse non-judicial proceedings;
- 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, including effects of the COVID-19 pandemic;
- 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.

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.

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

Our federal net operating losses (NOLs) generated in taxable years beginning on or prior to December 31, 2017 could expire unused. Under current law, federal NOLs incurred in taxable years beginning after December 31, 2017, may be carried forward indefinitely, but the deductibility of such federal NOLs in tax years beginning after December 31, 2020, is limited to 80% of taxable income. It is uncertain if and to what extent various states will conform to federal tax laws. 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 and other pre-change tax attributes (such as research tax credits) to offset its post-change income or taxes may be limited. We may 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.

We have a significant number of outstanding options and unvested restricted stock units. Future sales of these shares could adversely affect the market price of our common stock.

As of December 31, 2021, we had outstanding options for an aggregate of approximately 10.5 million shares of common stock at a weighted average exercise price of $4.61 per share and approximately 0.1 million of unvested restricted stock units. 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 will be in-the-money and the holders may exercise their options and sell a large number of shares. This could cause the market price of our common stock to decline.

Our bylaws, as amended (Bylaws) provide that the Court of Chancery of the State of Delaware is the exclusive forum for certain disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our Bylaws provide that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors or officers to our company or our stockholders, (iii) any action asserting a claim against our company arising pursuant to any provision of the Delaware General Corporation Law or our amended and restated certificate of incorporation or Bylaws, or (iv) any action asserting a claim against our company governed by the internal affairs doctrine.

This choice of forum provision may limit a stockholder's ability to bring certain claims in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims, although our stockholders will not be deemed to have waived our compliance with federal securities laws and the rules and regulations thereunder. While the Delaware courts have determined that such choice of forum provisions are facially valid and several state trial courts have enforced such provisions, there is no guarantee that courts of appeal will affirm the enforceability of such provisions and a stockholder may nevertheless seek to bring a claim in a venue other than that designated in the exclusive forum provision. If a court were to find this choice of forum provision to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect our business and financial condition.

General Risks

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.

Changes in tax laws or regulations that are applied adversely to us or our customers may have a material adverse effect on our business, cash flow, financial condition or results of operations.

New income, sales, use or other tax laws, statutes, rules, regulations or ordinances could be enacted at any time, which could adversely affect our business operations and financial performance. Further, existing tax laws, statutes, rules, regulations or ordinances could be interpreted, changed, modified or applied adversely to us. For example, the Biden administration and Congress have proposed various U.S. federal tax law changes, which if enacted could have a material impact on our business, cash flows, financial condition or results of operations. In addition, it is uncertain if and to what extent various states will conform to federal tax laws. Future tax reform legislation could have a material impact on the value of our deferred tax assets, could result in significant one-time charges, and could increase our future U.S. tax expense.

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.

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.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

As of December 31, 2021, we lease (i) approximately 10,000 square feet of office space in Los Angeles, California with six years remaining on the lease, (ii) approximately 15,000 square feet of office space in Irvine, California on a month to month basis, and (iii) approximately 20,000 square feet of space for research and development laboratory in Longmont, Colorado with four years remaining on the lease. In November 2021, we entered into a new lease agreement for approximately 8,000 square feet of office space in Tustin, California which will commence in July 2022 and replace our existing office space in Irvine, California. We do not own any real estate. 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 and Longmont, CO

For the year ended December 31, 2021, our total annual rent expense was approximately $1,069,000.

Item 3. Legal Proceedings

The information set forth under the heading “Legal Proceedings” in Note 15, Commitments and Contingencies, in Notes to the Consolidated Financial Statements in Item 8 of Part II of this Form 10-K, is incorporated herein by reference. For additional discussion of certain risks associated with legal proceedings, see Item 1A, Risk Factors.

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 March 9, 2022, the closing sale price was $2.60.

Holders of Our Common Stock

As of March 9, 2022, we had approximately 41 registered holders of record of our common stock, which does not include stockholders who hold shares in street name or stockholders whose shares may be held in trust by other entities.

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. Reserved

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

The following discussion and analysis of financial condition and results of operations should be read in conjunction with the consolidated financial statements and accompanying notes included elsewhere this Form 10-K. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those discussed below and elsewhere in this Annual Report on Form 10-K. We encourage you to review the risks and uncertainties described in Part I. Item 1A. Risk Factors and Cautionary Notice Regarding Forward-Looking Statements.

Overview

ChromaDex Corporation and its wholly owned subsidiaries, ChromaDex, Inc., ChromaDex Analytics, Inc., ChromaDex Asia Limited, ChromaDex Europa B.V. and ChromaDex Sağlik Ürünleri Anonim Şirketi (collectively, "ChromaDex", the "Company" or, in the first person as "we" "us" and "our") are a global bioscience company dedicated to healthy aging. The ChromaDex team, which includes world-renowned scientists, is pioneering research on nicotinamide adenine dinucleotide (NAD+), an essential coenzyme which is found in every cell of human bodies and levels of which decline with age. ChromaDex is the innovator behind NAD+ precursor nicotinamide riboside (NR), commercialized as the flagship ingredient NIAGEN®. Nicotinamide riboside and other NAD+ precursors are protected by ChromaDex's patent portfolio. ChromaDex delivers NIAGEN® as the sole active ingredient in its consumer product, TRU NIAGEN®. The Company also has an analytical reference standards and services segment, which focuses on natural product fine chemicals (known as "phytochemicals") and related chemistry services.

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 (GAAP). 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.

On February 20, 2021, we entered into a Securities Purchase Agreement with EverFund pursuant to which we agreed to sell and issue approximately 3.8 million shares of common stock at a purchase price of $6.50 per share (the Financing). On February 23, 2021, we closed the Financing and received proceeds of $24.9 million, net of offering costs.

In June 2020, we entered into an At Market Issuance Sales Agreement (the Sales Agreement) with B. Riley FBR, Inc. (B. Riley FBR) and Raymond James & Associates, Inc. ("Raymond James" and together with B. Riley FBR, Inc. the "Sales Agents") under which ChromaDex may offer and sell shares of our common stock having an aggregate offering price of up to $50.0 million from time to time through the Sales Agents (ATM Facility). During the second quarter of 2021, we sold an aggregate of 0.2 million shares of our common stock under the ATM Facility resulting in proceeds of $1.9 million, net of offering costs and commissions. The shares sold at an average price of $10.56 per share. As of December 31, 2021, approximately $47.8 million remains available under the ATM Facility.

On December 11, 2021, we amended our financing agreement with Western Alliance Bank. Pursuant to the amendment, the aggregate principal amount available to us under the line of credit increased from $7.0 million to $10.0 million, subject to the terms and conditions of the agreement, as amended, the maturity date was extended to November 12, 2023 and the applicable interest rate was reduced. For more information, see Note 9, *Line of Credit,* in the Notes to the Consolidated Financial Statements, included in Part II, Item 8 of this Form 10-K.

Effective as of August 2, 2021, we entered into a Seventh Amendment (Seventh Amendment) to the Manufacturing and Supply Agreement (such agreement as amended, the "Grace Manufacturing Agreement"), originally effective in January 2016 with W.R. Grace & Co. –Conn. (Grace). In January 2019, Grace was issued patents related to the manufacturing of the crystalline form of NR (Grace Patents). Pursuant to the Seventh Amendment, we are committed to purchase approximately $18.0 million of total inventory between January 1, 2022 and December 31, 2022 and $3.5 million of inventory from January 1, 2023 through June 30, 2023. The Grace Manufacturing Agreement will expire on June 30, 2023, subject to further renewal of the agreement to be negotiated by the parties.

As of December 31, 2021, our cash and cash equivalents totaled approximately $28.2 million. We anticipate that our current cash, cash equivalents and cash to be generated from net sales will be sufficient to meet our projected operating plans through at least the next twelve months from the issuance date of this report. Additionally, we have a line of credit up to $10.0 million available to us from Western Alliance Bank. We may, however, seek additional capital within the next twelve months, both to meet our projected operating plans after the next twelve months and/or to fund our longer term strategic objectives.

Additional capital may come from other 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 required regulatory clearances or approvals, achieve long term strategic objectives, capitalize on 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. Further, as a result of the 2019 coronavirus disease and its variants (COVID-19) pandemic and actions taken to slow its spread, the global credit and financial markets have experienced extreme volatility, including diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates and uncertainty about economic stability. There can be no assurance that further deterioration in credit and financial markets and confidence in economic conditions will not occur. If equity and credit markets deteriorate, it may make any necessary debt or equity financing more difficult to obtain, more costly and/or more dilutive.

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.

Impact of COVID-19

The worldwide outbreak of COVID-19 continues to drive global uncertainty and disruption, which has created headwinds for our business. Authorities have imposed, and businesses and individuals have implemented, numerous measures to try to contain the virus or treat its impact, such as travel bans and restrictions, quarantines, shelter-in-place/stay-at-home and social distancing orders, store closures and reduced operating hours, and vaccine requirements. These measures have impacted and may further impact our workforce and operations and those of our respective suppliers and partners.

In particular, we have experienced, and could in the future experience, global supply chain delays including challenges with transportation, logistics and production lead-times, as well as labor shortages and cost inflation. In the first quarter of 2021, we experienced delays due to global components and packaging shortages for our consumer products across our supply chain. These challenges were addressed in the second quarter and we have otherwise not encountered any major disruptions in our supply chain. It is our intention to maintain adequate safety stocks to support our growth and we currently believe we have adequate inventory on hand to meet current demands. We will continue to monitor the situation closely as conditions may become more challenging due to ongoing and uncertain economic factors. Additionally, our sales to partners in international markets have been impacted by the effects of COVID-19.

Our primary focus throughout the COVID-19 pandemic has remained ensuring the health and safety of our employees through office closures or implementing enhanced safety protocols to ensure the well-being of our employees. We have adapted to the new environment and been able to successfully conduct business virtually.

The degree to which COVID-19 impacts our results will depend on future developments, which are highly uncertain and cannot be predicted, including the duration and severity of the pandemic; surges related to new variants; the actions taken to contain the virus or treat its impact; other actions taken by governments, businesses, and individuals in response to the virus and resulting economic disruption; and how quickly and to what extent normal economic and operating conditions can resume. Additional impacts and risks may arise that we are not aware of or able to respond to effectively. We are similarly unable to predict the extent of the impact of the pandemic on our customers, suppliers, and other partners, but a material effect on these parties could also materially adversely affect us. The impact of COVID-19 can also exacerbate other risks discussed in this Risk Factors section and throughout this report.

Results of Operations

Our results of operations for the years ended December 31, 2021 and 2020 are as follows:

	Year Ended December 31,	
(In thousands)	**2021**	**2020**
Sales	**$ 67,449**	$ 59,257
Cost of sales	**25,959**	23,983
Gross profit	**41,490**	35,274
Operating expenses		
Sales and marketing	**28,352**	20,948
Research and development	**3,832**	3,415
General and administrative	**36,379**	30,765
Nonoperating		
Interest expense, net	**(55)**	(71)
Net loss	**$ (27,128)**	$ (19,925)

Our loss per share applicable to common stockholders for the years indicated is calculated as follows:

	Year Ended December 31,	
(In thousands, except per share data)	**2021**	**2020**
Net loss	**$ (27,128)**	$ (19,925)
Basic and diluted loss per common share	**$ (0.40)**	$ (0.33)
Basic and diluted weighted average common shares outstanding (1):	**67,185**	61,067
Potentially dilutive securities (2):		
Stock options	**10,536**	11,914
Restricted stock units	**115**	—

(1) Includes approximately 0.2 million nonvested shares of restricted stock for the year ended December 31, 2021 and December 31, 2020 which are participating securities that feature voting and dividend rights.
(2) Excluded from the computation of loss per share as their impact is antidilutive.

Net Sales. Net sales consist of gross sales less discounts and returns. Our total net sales grew from $21.2 million in 2017 to $67.4 million in 2021, representing a 26% compound annual growth rate.

Our total net sales by reportable segment for the years ended December 31, 2021 and 2020 are as follows:

(In thousands)	Year Ended December 31, 2021	2020	Change
Net sales:			
Consumer Products	**$ 56,705**	$ 47,090	20 %
Ingredients	**7,407**	9,198	(19)
Analytical reference standards and services	**3,337**	2,969	12
Total net sales	**$ 67,449**	$ 59,257	14 %

In 2021, our total net sales increased by 14%, up $8.2 million, from 2020.

- In 2021, our e-commerce sales for TRU NIAGEN® increased approximately $7.3 million, or 21%, from 2020. Additionally, we began distributing TRU NIAGEN® at Walmart stores across the United States in June 2021.
- In 2021, our ingredients segment experienced a 19% decrease in overall net sales from 2020. The decrease was primarily driven by lower demand in our other ingredients category. Other ingredient sales decreased approximately $1.4 million while NIAGEN® ingredient sales decreased $0.4 million in 2021 compared to 2020. The decline in sales was partially attributable to terminated sales of NIAGEN® to Thorne Research Inc., a former customer who filed a petition on December 1, 2020 for inter partes review of the '086 Patent which ChromaDex Inc. exclusively licenses from Dartmouth College. For more information, see Note 15, *Commitments and Contingencies, Legal Proceedings* in the Notes to the Consolidated Financial Statements, included in Part II, Item 8 of this Form 10-K.
- Net sales for our analytical reference standards and services segment increased during 2021 compared to 2020 primarily due to increased demand for reference standards in 2021.

Cost of Sales. Costs of sales include raw materials, labor, overhead and delivery costs. The following table sets forth our total cost of sales by reportable segment:

(In thousands)	Year Ended December 31, 2021 Amount	2021 % of net sales	2020 Amount	2020 % of net sales	Change % of net sales
Cost of sales:					
Consumer Products	**$ 19,864**	**35 %**	$ 17,541	37 %	(2) %
Ingredients	**3,233**	**44**	3,593	39	5
Analytical reference standards and services	**2,862**	**86**	2,849	96	(10)
Total cost of sales	**$ 25,959**	**38 %**	$ 23,983	40 %	(2) %

Total cost of sales, as a percentage of net sales, decreased 2% in 2021 compared to 2020 as scale, product mix and cost saving initiatives more than offset inflationary pressures across global supply chains.

During 2021, we continued to explore cost saving processes and opportunities and benefit from favorable product mix.

- Cost of sales, as a percentage of net sales, for the consumer products segment decreased 2% in 2021 compared to 2020. The decreases were driven by favorable product mix, continued cost saving initiatives and overall efficiencies of our supply chain.
- Cost of sales, as a percentage of net sales, for the ingredients segment increased by 5% in 2021 compared to 2020. The relative increase is primarily attributable to a rebate recorded in the second quarter of 2020 from a supplier for efficiency initiatives. No similar rebates were recorded in 2021.
- The fluctuation in cost of sales, as a percentage of net sales, for the analytical reference standards and services segment is largely driven by our fixed supply chain labor and overhead costs which do not increase in proportion to sales. Accordingly, as sales increased in 2021 we experienced increased utilization rates and a decrease in cost of sales, as a percentage of net sales, of 10% compared to 2020.

Gross Profit. Gross profit is net sales less the cost of sales and is affected by a number of factors including business and product mix, competitive pricing and costs of products, labor, overhead, services and delivery. Our overall gross profit increased $6.2 million, or 18%, in 2021 compared to 2020 and overall gross margin percentage was up 200 basis points for the same period.

The following table sets forth our total gross profit by reportable segment:

	Year Ended December 31,		
(In thousands)	**2021**	**2020**	**Change**
Gross profit:			
Consumer Products	**$ 36,841**	$ 29,549	25 %
Ingredients	**4,174**	5,605	(26)
Analytical reference standards and services	**475**	120	296
Total gross profit	**$ 41,490**	$ 35,274	18 %

For details supporting year-over-year changes in gross profit refer to the discussions above regarding changes in our net sales and cost of sales for each segment.

Operating Expenses - Sales and Marketing. Sales and marketing expense consists of salaries, advertising, public relations and marketing expenses. Sales and marketing expense by reportable segment is as follows:

	Year Ended December 31,		
(In thousands)	**2021**	**2020**	**Change**
Sales and marketing expenses:			
Consumer Products	**$ 27,821**	$ 20,323	37 %
Ingredients	**46**	41	12
Analytical reference standards and services	**485**	584	(17)
Total sales and marketing expenses	**$ 28,352**	$ 20,948	35 %

- We continue to focus our primary marketing efforts on our consumer products segment to increase consumer awareness of TRU NIAGEN®. In 2021, we increased sales and marketing expense by approximately $7.5 million compared to 2020 which is largely attributable to direct marketing expenses associated with social media, public relations and other customer awareness and acquisition programs, as well as increased staffing.
- For the ingredients segment, sales and marketing expenses were substantially similar totaling $46,000 in 2021 and $41,000 in 2020.
- For the analytical reference standards and services segment, sales and marketing expenses decreased by approximately $0.1 million in 2021 compared to 2020. The lower sales and marketing expense is related to our continued strategic focus on our consumer products segment.

Operating Expenses - Research and Development. Research and development expense consists primarily of clinical trials, product development and process development expenses.

(In thousands)	Year Ended December 31, 2021	2020	Change
Research and development expenses:			
Consumer Products	**$ 3,427**	$ 2,972	15 %
Ingredients	**405**	443	(9)
Total research and development expenses	**$ 3,832**	$ 3,415	12 %

- We allocate research and development expenses related to our NIAGEN® branded ingredient to our consumer products and ingredients segments based on net sales recorded. Overall, research and development expense slightly increased in 2021 compared to 2020 as we increased investments and acceleration of our research and development pipeline and timing of projects.

Operating Expenses - General and Administrative. General and administrative expense consists of general company administration, legal, royalties, information technology, accounting and executive management expenses. General and administrative expense is not allocated by segment and is instead classified under our Corporate and Other category. General and administrative expense is as follows:

(In thousands)	Year Ended December 31, 2021	2020	Change
General and administrative	**$ 36,379**	$ 30,765	18 %

Increased general and administrative expense for 2021 was primarily attributable to increased legal expenditures. Our legal expense increased to approximately $16.4 million in 2021 from approximately $8.6 million in 2020 due to increased activity in our ongoing litigation. For additional details see Note 15, *Commitments and Contingencies, Legal Proceedings* in the Notes to the Consolidated Financial Statements, included in Part II, Item 8 of this Form 10-K.

Nonoperating - Interest Expense, net. Interest expense, net consists of interest earned from bank deposit accounts less interest expenses from the line of credit arrangement and finance leases. Interest expense, net totaled approximately $55,000 and $71,000 for the years ended December 31, 2021 and 2020, respectively.

Depreciation and Amortization. Depreciation expense was approximately $0.9 million for both of the years ended December 31, 2021 and 2020. We depreciate our assets on a straight-line basis, based on the estimated useful lives of the respective assets.

Amortization expense of intangible assets was approximately $0.2 million for both of the years ended December 31, 2021 and 2020. 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 life of subsequent milestone payments that are capitalized match the remaining useful life of the initial licensing payment that was originally capitalized. Amortization expense of right-of-use assets for the year ended December 31, 2021 was approximately $0.5 million as compared to $0.4 million for the year ended December 31, 2020.

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, 2021 and 2020, we maintained a full valuation allowance against the entire deferred income tax balance which resulted in an effective tax rate of approximately 0% for both of the years ended December 31, 2021 and 2020. 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. Cash used in operating activities is net loss adjusted for certain non-cash items and changes in operating assets and liabilities. Net cash used in operating activities was approximately $24.2 million and $10.6 million in 2021 and 2020, respectively. The increase in cash used during the year ended December 31, 2021 compared to 2020 was primarily due to the increase in our net loss of $7.2 million as well as changes in working capital. Changes in working capital was driven by timing of trade receivable collections and increased inventory.

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

Net cash used in investing activities. Investing cash flows consist primarily of capital expenditures and investment activities. Net cash used in investing activities was approximately $0.4 million and $0.2 million in 2021 and 2020, respectively. The increase in cash used during the year ended December 31, 2021 compared to 2020 was primarily due to increased purchases of leasehold improvements and equipment in 2021.

Net cash provided by financing activities. Financing cash flows consist primarily of proceeds from issuance of our common stock, exercise of stock options through employee equity incentive plans and repayment of short-term and long-term debt. Net cash provided by financing activities was approximately $36.1 million and $8.7 million in 2021 and 2020, respectively. The increase in cash provided during the year ended December 31, 2021 compared to 2020 was primarily due to increased proceeds from issuance of our common stock of $21.8 million and higher proceeds related to the exercise of employee stock options of $5.4 million.

Trade Receivables. As of December 31, 2021, we had approximately $5.2 million in trade receivables as compared to approximately $2.7 million as of December 31, 2020.

Inventories. As of December 31, 2021, we had approximately $13.6 million in inventory, compared to approximately $11.7 million as of December 31, 2020. As of December 31, 2021, our inventory consisted of approximately $11.0 million of consumer products, $2.1 million of bulk ingredients and $0.5 million of reference standards. Consumer products inventory consists of TRU NIAGEN® branded finished bottles of dietary supplement products and related work-in-process inventory. 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 industries to manufacture their final products. Reference standards are small quantities of plant-based compounds typically used to research an array of potential attributes or for quality control purposes. The Company currently lists over 3,000 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.

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 in an effort to lower the costs of our inventory.

Accounts Payable. As of December 31, 2021, we had $10.4 million in accounts payable compared to approximately $9.4 million as of December 31, 2020.

Liquidity and Capital Resources

For the year ended December 31, 2021, we incurred losses from operations of approximately $27.1 million. Net cash used in operating activities for the year ended December 31, 2021 was approximately $24.2 million. The losses and the uses of cash are primarily due to expenses associated with the development and expansion of our operations, as well as legal expenditures. These operations have been financed through capital contributions, primarily through the issuance of common stock in private placements. Additionally, as of December 31, 2021, we had purchase obligations of approximately $23.2 million related to inventory purchases which are to be placed over two years and approximately $5.5 million in future minimum lease obligations to be paid over seven years.

Our Board of Directors periodically reviews our material cash 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, 2021, cash and cash equivalents totaled approximately $28.2 million and we had no borrowings outstanding under our line of credit with Western Alliance Bank. Additionally, as of December 31, 2021, we had purchase obligations of approximately $23.2 million related to inventory purchase commitments and approximately $5.5 million in future minimum lease obligations to be paid over two and seven years, respectively. As of December 31, 2021 and 2020, we had no material off-balance sheet arrangements. We anticipate that our current cash, cash equivalents and cash to be generated from net sales will be sufficient to meet our projected operating plans through at least the next twelve months from the issuance date of these financial statements. Additionally, we have a line of credit up to $10.0 million available to us from Western Alliance Bank. We may, however, seek additional capital within the next twelve months, both to meet our projected operating plans after the next twelve months and/or to fund our longer term strategic objectives. In June 2020, we filed a $125 million registration statement on Form S-3 with the Commission, utilizing a “shelf” registration process. Under this shelf registration process, we may sell securities from time to time, including up to $50 million pursuant to the At Market Issuance Sales Agreement, dated as of June 12, 2020, with B. Riley FBR, Inc. and Raymond James & Associates, Inc. (ATM Facility). During the second quarter of 2021, we sold an aggregate of 0.2 million shares of our common stock under the ATM Facility resulting in proceeds of $1.9 million, net of offering costs of $0.3 million. The shares sold at an average price of $10.56 per share. As of December 31, 2021, approximately $47.8 million remains available under the ATM Facility.

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.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations and other commitments as of December 31, 2021:

(In thousands)	2022	2023	2024	2025	2026	Thereafter	Total
Operating leases	$ 694	$ 949	$ 1,159	$ 1,141	$ 906	$ 677	$ 5,526
Finance leases	20	—	—	—	—	—	20
Purchase obligations	19,710	3,500	—	—	—	—	23,210
Total	**$ 20,424**	**$ 4,449**	**$ 1,159**	**$ 1,141**	**$ 906**	**$ 677**	**$ 28,756**

Operating leases. Under operating lease agreements, we lease a research facility in Colorado that expires in October 2025 and office spaces in Los Angeles, California and Orange County, California. Our Los Angeles office lease expires in March 2027. We are currently in the process of transitioning from one office to another office within Orange County. Our current office lease in Irvine, California is month-to-month and our new office lease in Tustin, California will begin in July 2022 and expire in June 2028. We make monthly payments on these leases.

Finance leases. We lease equipment under finance lease obligations with a term of typically two to four years. We make monthly installment payments for these leases.

Purchase obligations. From time to time, we enter into purchase obligations with various vendors for goods and service that we need for our operations. The purchase obligations for goods and services primarily consist of inventory.

Critical Accounting Estimates

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. For a summary of our significant accounting policies, including the accounting policy discussed below see Note 3 of the Financial Statements, set forth in Item 8 of this Form 10-K.

***Revenue recognition*:** Beginning in fiscal year 2018, we adopted Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers (Topic 606). Our revenue recognition policies under Topic 606 are described below.

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.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Not applicable

Item 8. Financial Statements and Supplementary Data

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, 2021 and 2020, the related consolidated statements of operations, changes in stockholders' equity and cash flows for each of the two years in the period ended December 31, 2021, 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, 2021 and 2020, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2021, in conformity with accounting principles generally accepted in the United States of America.

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 Public Company Accounting Oversight Board (United States) ("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. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

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 provides a reasonable basis for our opinion.

Critical Audit Matters

Critical audit matters are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

/s/ Marcum LLP

Marcum LLP

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

New York, NY
March 14, 2022

ChromaDex Corporation and Subsidiaries
Consolidated Balance Sheets

	December 31,	
	2021	**2020**
(In thousands except par values, unless otherwise indicated)		
Assets		
Current assets		
Cash and cash equivalents, including restricted cash of $0.2 million for both periods presented	**$ 28,219**	$ 16,697
Trade receivables, net of allowances of $65 and $189, respectively; Including receivables from Related Party of $2.1 million and $0.9 million, respectively.	**5,226**	2,694
Inventories	**13,601**	11,683
Prepaid expenses and other assets	**1,859**	1,145
Total current assets	**48,905**	32,219
Leasehold improvements and equipment, net	**3,003**	3,206
Intangible assets, net	**857**	1,082
Right-of-use assets	**4,352**	1,226
Other long-term assets	**723**	625
Total assets	**$ 57,840**	$ 38,358
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	**$ 10,423**	$ 9,445
Accrued expenses	**6,481**	6,133
Current maturities of operating lease obligations	**528**	589
Current maturities of finance lease obligations	**20**	31
Customer deposits	**161**	278
Total current liabilities	**17,613**	16,476
Deferred revenue	**4,346**	4,441
Operating lease obligations, less current maturities	**4,154**	997
Finance lease obligations, less current maturities	**—**	20
Total liabilities	**26,113**	21,934
Commitments and Contingencies		
Stockholders' Equity		
Common stock, $0.001 par value; authorized 150,000 shares; 68,126 shares and 61,881 shares issued and outstanding at December 31, 2021 and December 31, 2020, respectively.	**68**	62
Additional paid-in capital	**200,614**	158,190
Accumulated deficit	**(168,953)**	(141,825)
Cumulative translation adjustments	**(2)**	(3)
Total stockholders' equity	**31,727**	16,424
Total liabilities and stockholders' equity	**$ 57,840**	$ 38,358

See accompanying notes to consolidated financial statements.

ChromaDex Corporation and Subsidiaries
Consolidated Statements of Operations

	Year Ended December 31,	
	2021	**2020**
(In thousands, except per share data)		
Sales, net	**$ 67,449**	$ 59,257
Cost of sales	**25,959**	23,983
Gross profit	**41,490**	35,274
Operating expenses:		
Sales and marketing	**28,352**	20,948
Research and development	**3,832**	3,415
General and administrative	**36,379**	30,765
Total operating expenses	**68,563**	55,128
Operating loss	**(27,073)**	(19,854)
Interest expense, net	**(55)**	(71)
Net loss	**$ (27,128)**	$ (19,925)
Basic and diluted loss per common share	**$ (0.40)**	$ (0.33)
Basic and diluted weighted average common shares outstanding	**67,185**	61,067

See accompanying notes to consolidated financial statements.

ChromaDex Corporation and Subsidiaries
Consolidated Statement of Stockholders' Equity
(In thousands, unless otherwise indicated)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Cumulative Translation Adjustments	Total Stockholders' Equity
	Shares	Amount				
Balance, January 1, 2020	59,562	$ 60	$ 142,285	$ (121,900)	$ —	$ 20,445
Issuance of common stock, net of offering costs of $0.1 million	1,225	1	4,855			4,856
Exercise of stock options	1,094	1	4,114	—	—	4,115
Share-based compensation	—	—	6,936	—	—	6,936
Translation adjustment	—	—	—	—	(3)	(3)
Net loss	—	—	—	(19,925)		(19,925)
Balance, December 31, 2020	**61,881**	**$ 62**	**$ 158,190**	**$ (141,825)**	**$ (3)**	**$ 16,424**
Issuance of common stock, net of offering costs of $0.4 million	4,059	4	26,736	—	—	26,740
Exercise of stock options	2,186	2	9,493	—	—	9,495
Share-based compensation	—	—	6,195	—	—	6,195
Translation adjustment	—	—	—	—	1	1
Net loss	—	—	—	(27,128)	—	(27,128)
Balance, December 31, 2021	**68,126**	**$ 68**	**$ 200,614**	**$ (168,953)**	**$ (2)**	**$ 31,727**

See accompanying notes to consolidated financial statements.

ChromaDex Corporation and Subsidiaries
Consolidated Statements of Cash Flows
(In thousands, unless otherwise indicated)

	Year Ended December 31,	
	2021	**2020**
Cash Flows From Operating Activities		
Net loss	**$ (27,128)**	$ (19,925)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation of leasehold improvements and equipment	**890**	871
Amortization of intangibles	**225**	243
Amortization of right of use assets	**511**	399
Share-based compensation expense	**6,195**	6,936
Provision for doubtful trade receivables	**46**	36
Loss from investment in long-term assets	**—**	395
Loss from impairment of intangibles	**—**	4
Non-cash financing costs	**108**	94
Changes in operating assets and liabilities:		
Trade receivables	**(2,578)**	(555)
Inventories	**(1,918)**	(148)
Implementation costs for cloud computing arrangement	**(278)**	(142)
Prepaid expenses and other assets	**(810)**	(427)
Accounts payable	**978**	(181)
Accrued expenses	**348**	1,717
Deferred revenue	**(95)**	568
Customer deposits and other	**(116)**	106
Principal payments on operating leases	**(541)**	(591)
Net cash used in operating activities	**(24,163)**	(10,600)
Cash Flows From Investing Activities		
Purchases of leasehold improvements and equipment	**(409)**	(124)
Purchases of intangible assets	**—**	(18)
Investment in other long-term assets	**—**	(23)
Net cash used in investing activities	**(409)**	(165)
Cash Flows From Financing Activities		
Proceeds from issuance of common stock, net	**26,740**	4,856
Proceeds from exercise of stock options	**9,495**	4,115
Payment of debt issuance costs	**(110)**	(49)
Principal payments on finance leases	**(31)**	(272)
Net cash provided by financing activities	**36,094**	8,650
Net increase (decrease) in cash and cash equivalents	**11,522**	(2,115)
Cash and cash equivalents, including restricted cash of $0.2 million for both 2021 and 2020 - beginning of period	**16,697**	18,812
Cash and cash equivalents, including restricted cash of $0.2 million for both 2021 and 2020 - end of period	**$ 28,219**	$ 16,697
Supplemental Disclosures of Cash Flow Information		
Cash payments for interest on finance leases	**$ 1**	$ 13
Supplemental Schedule of Noncash Operating Activity		
Right-of-use assets and operating lease obligations incurred for entering into lease amendment	**$ 3,637**	$ 734
Supplemental Schedule of Noncash Investing Activity		
Financing lease obligation incurred for purchase of computer equipment and software	**$ —**	$ 47
Retirement of fully depreciated equipment - cost	**$ —**	$ 5
Retirement of fully depreciated equipment - accumulated depreciation	**$ —**	$ 5

See accompanying notes to consolidated financial statements.

Note 1. Nature of Business

ChromaDex Corporation and its wholly owned subsidiaries, ChromaDex, Inc., ChromaDex Analytics, Inc., ChromaDex Asia Limited, ChromaDex Europa B.V. and ChromaDex Sağlik Ürünleri Anonim Şirketi (collectively, "ChromaDex", the "Company") are a global bioscience company dedicated to healthy aging. The ChromaDex team, which includes world-renowned scientists, is pioneering research on nicotinamide adenine dinucleotide (NAD+), an essential coenzyme which is found in every cell of human bodies and levels of which decline with age. ChromaDex is the innovator behind NAD+ precursor nicotinamide riboside (NR), commercialized as the flagship ingredient NIAGEN®. Nicotinamide riboside and other NAD+ precursors are protected by ChromaDex's patent and/or licensed rights portfolio. ChromaDex delivers NIAGEN® as the sole active ingredient in its consumer product TRU NIAGEN®. The Company also has an analytical reference standards and services segment, which focuses on natural product fine chemicals, known as phytochemicals, and related chemistry services.

On January 15, 2021, Healthspan Research, LLC was dissolved. Prior to its dissolution, Healthspan Research, LLC contributed its assets and liabilities to ChromaDex Inc.

Note 2. Liquidity

The Company incurred a net loss of approximately $27.1 million for the year ended December 31, 2021. As of December 31, 2021, cash and cash equivalents totaled approximately $28.2 million which includes restricted cash of approximately $0.2 million.

On December 11, 2021, the Company amended its financing agreement with Western Alliance Bank increasing the aggregate principal amount available under the line of credit from $7.0 million to $10.0 million, subject to the terms and conditions of the agreement, and extended the maturity date to November 12, 2023, among other amendments. For more information, see Note 9, *Line of Credit.*

The Company anticipates that its current cash, cash equivalents and cash to be generated from net sales will be sufficient to meet its projected operating plans through at least the next twelve months from the issuance date of these financial statements. Additionally, the Company has an available line of credit up to $10.0 million from Western Alliance Bank. The Company may, however, seek additional capital within the next twelve months, both to fund its projected operating plans after the next twelve months and/or to fund the Company's longer-term strategic objectives. Additionally, in June 2020, the Company filed a $125.0 million registration statement on Form S-3 with the Commission, utilizing a "shelf" registration process. Under this shelf registration process, the Company may sell securities from time to time up to $50.0 million pursuant to the At Market Issuance Sales Agreement, dated as of June 12, 2020, with B. Riley FBR, Inc. and Raymond James & Associates, Inc. (ATM Facility). During the second quarter of 2021, the Company sold an aggregate of 0.2 million shares of its common stock under the ATM Facility resulting in proceeds of $1.9 million, net of offering costs of $0.3 million. The shares sold at an average price of $10.56 per share. As of December 31, 2021, approximately $47.8 million remains available under the ATM Facility.

Note 3. 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 ends on December 31.

Reclassifications: Certain prior period results have been reclassified to be consistent with the current period presentation.

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.

The Company accounts 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.

Shipping and handling fees billed to customers included in net sales for the periods indicated are as follows:

	Year Ended December 31,	
(In thousands)	**2021**	**2020**
Shipping and handling fees billed	$ 336	$ 278

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 the lease agreement for office space located in Los Angeles, California, the Company delivered a letter of credit issued by a bank to the landlord in the amount of $0.2 million. The issuing bank required 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 was renewed on October 18, 2021 and currently expires on October 18, 2022. The Los Angeles, California office lease currently expires in March 2027.

Trade receivables, net: Trade receivables 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. Trade receivables are written off when deemed uncollectible. Recoveries of trade receivables previously written off are recorded when received.

Credit risk: Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents and trade receivables. Cash and cash equivalents, consist of bank deposits or highly liquid investment-grade debt instruments with an original maturity of three months of less when purchased pursuant to the Company's investment policy. U.S. bank accounts at each institution are insured by the Federal Deposit Insurance Corporation (FDIC) up to $250,000. As of December 31, 2021, the Company had approximately $26.0 million in uninsured cash deposits in U.S. bank accounts. The Company, however, believes it has very little credit risk exposure for its cash and cash equivalents. All uninsured U.S. bank deposits are held at high quality credit institutions. The Company's trade receivables are derived from sales to its customers. The Company assess credit risk of its customers through quantitative and qualitative analysis. From this analysis, the Company establishes credit limits and manages the risk exposure. The Company, however, incurs 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 Company's 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 comprised of leasehold improvements, laboratory equipment, furniture and fixtures, computer equipment, construction in progress and implementations costs for cloud computing arrangement. 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. Implementation costs related to a cloud computing arrangement are deferred or expensed as incurred, in accordance with the Accounting Standards Update (ASU) 2018-15. Depreciation on equipment under finance 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 U.S. federal tax return and various state tax returns. Open tax years for these jurisdictions are 2018 to 2021, which statutes expire in 2022 to 2025, 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, 2021, 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 clinical trials, product development and process development expenses. 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 years ended December 31, 2021 and 2020 were approximately $12.5 million and $7.4 million, respectively.

Share-based compensation: The Company has a 2017 Equity Incentive Plan under which the Board of Directors may grant restricted stock or stock options to employees and non-employees. The accounting treatment for share-based payments to employees and non-employees is substantially equivalent.

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. 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. The volatility assumption is based on the historical volatility of the Company's common stock with an equivalent remaining expected term. 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 expected term.

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.

For option grants without performance conditions, the Company recognizes compensation expense over the requisite service period ratably, recognizing expense for each tranche of each grant starting on the grant date. 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. The Company recognizes forfeitures when they occur.

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. Fair value measurements are based on a three-tier hierarchy that prioritizes the use of observable inputs and minimizes the use on unobservable inputs. These tiers include:

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.

The fair value of cash and cash equivalents of $28.2 million and $16.7 million as of December 31, 2021 and 2020, respectively, is derived using Level 1 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.

Accounting Standards Recently Issued but Not Yet Adopted by the Company: In June 2016, the Financial Accounting Standards Board issued Accounting Standards Update (ASU) 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. The standard's main goal is to improve financial reporting by requiring earlier recognition of credit losses on financing receivables and other financial assets in scope. The new guidance represents significant changes to accounting for credit losses: (i) full lifetime expected credit losses will be recognized upon initial recognition of an asset in scope; (ii) the current incurred loss impairment model that recognizes losses when a probable threshold is met will be replaced with the expected credit loss impairment method without recognition threshold; and (iii) the expected credit losses estimate will be based upon historical information, current conditions, and reasonable and supportable forecasts. ASU 2016-13 introduces two distinctive credit loss impairment models: (i) current expected credit loss impairment model (Subtopic 326-20) applicable to financial assets measured at amortized cost; and (ii) available-for-sale debt securities impairment model (Subtopic 326-30). ASU 2016-13 is effective for public entities for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. Public entities that qualify as a smaller reporting company can elect to defer compliance effective for fiscal years beginning after December 15, 2022. The Company is currently evaluating the impact of ASU 2016-13 on its consolidated financial statements.

Note 4. 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 periods indicated.

	Year Ended December 31,	
(In thousands, except per share data)	**2021**	**2020**
Net loss	**$ (27,128)**	$ (19,925)
Basic and diluted loss per common share	**$ (0.40)**	$ (0.33)
Basic and diluted weighted average common shares outstanding (1):	**67,185**	61,067
Potentially dilutive securities (2):		
Stock options	**10,536**	11,914
Restricted stock units	**115**	—

(1) Includes approximately 0.2 million nonvested shares of restricted stock for the years ended December 31, 2021 and 2020 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 5. Inventories

The Company's major classes of inventory and corresponding balances for the periods indicated are as follows:

	December 31,	
(In thousands)	**2021**	**2020**
Consumer Products - Finished Goods	**$ 6,823**	$ 2,358
Consumer Products - Work in Process	**4,131**	5,718
Bulk ingredients	**2,131**	3,065
Reference standards	**516**	542
Inventories	**$ 13,601**	$ 11,683

Note 6. Intangible Assets, Net

Intangible assets for the periods indicated consisted of the following:

		December 31,	
(In thousands, except years)	Weighted Average Life (Years)	**2021**	**2020**
Healthspan Research LLC Acquisition	10	**$ 1,346**	$ 1,346
License agreements and other	9	**1,643**	1,643
Less: Accumulated amortization		**(2,132)**	(1,907)
Intangible assets, net		**$ 857**	$ 1,082

For the years ended December 31, 2021 and 2020, amortization expense was approximately $225,000 and $243,000, respectively.

Estimated amortization expense for each of the years ending December 31 is as follows:

(In thousands)

Year	Amount
2022	$ 186
2023	158
2024	154
2025	151
2026	151
Thereafter	57
	$ 857

Note 7. Leasehold Improvements and Equipment, Net

Leasehold improvements and equipment for the periods indicated consisted of the following:

	December 31,	
(In thousands)	**2021**	**2020**
Laboratory equipment	**$ 3,281**	$ 2,967
Leasehold improvements	**2,387**	2,357
Computer equipment	**814**	751
Implementation costs - cloud computing arrangements	**771**	582
Furniture and fixtures	**203**	201
Construction in progress	**91**	2
	7,547	6,860
Less: Accumulated depreciation	**(4,544)**	(3,654)
Leasehold improvements and equipment, net	**$ 3,003**	$ 3,206

Depreciation expense on leasehold improvements and equipment for the years ended December 31, 2021 and 2020 was approximately $890,000 and $871,000, respectively. Depreciation is computed using the straight-line method over the estimated useful lives of the depreciable assets (ranging from three to ten years). Leasehold improvements are amortized on a straight-line basis over the shorter of their estimated useful lives or the remaining lease term.

Note 8. Leases

Operating Leases

During the second quarter of 2021, the Company amended its existing lease in Los Angeles, California. In accordance with Accounting Standards Codification (ASC) 842, the amended lease agreement is considered to be modified and subject to lease modification guidance. The right-of-use (ROU) asset and lease liability related to the agreement were remeasured based on the change in the lease conditions such as rent payment and lease terms. The fair value of the increase in related lease liability and ROU asset is estimated to be approximately $2.2 million. The amended lease now extends through March 31, 2027 and provides one option to extend for an additional five years.

During the fourth quarter of 2021, the Company entered into a new lease agreement to lease office space in Tustin, California. The Tustin office space will replace the Company’s current office space located in Irvine, California. The lease extends through June 30, 2028, providing one option to extend for an additional five years. The fair value of the increase in related lease liability and ROU asset is estimated to be approximately $1.4 million.

As of December 31, 2021 and 2020, the Company had ROU assets of $4.4 million and $1.2 million, respectively, and corresponding operating lease liabilities of $4.7 million and $1.6 million, respectively.

The components of operating lease expense for the periods indicated are as follows:

	Year Ended December 31,	
(In thousands)	**2021**	**2020**
Operating leases		
Operating lease expense	**$ 625**	$ 501
Variable lease expense	**195**	182
Operating lease expense	**820**	683
Short-term lease rent expense	**249**	253
Total expense	**$ 1,069**	$ 936

As of December 31, 2021, the weighted average remaining lease term for operating leases is 5.2 years and the weighted average discount rate used to determine the operating lease liabilities is 5.9%.

Future minimum lease payments under operating leases as of December 31, 2021 are as follows:

(In thousands)	
Year	**Amount**
2022	$ 694
2023	949
2024	1,159
2025	1,141
2026	906
Thereafter	677
Total	5,526
Less: Present value discount	(844)
Present value of total operating lease liabilities	4,682
Less: Current portion	(528)
Long-term obligations under operating leases	$ 4,154

Note 9. Line of Credit

On November 12, 2019, the Company entered into a business financing agreement with Western Alliance Bank (Credit Agreement), to establish a formula based revolving credit line. On December 11, 2021, the Company amended the Credit Agreement to increase the aggregate principal amount available to the Company from $7.0 million to $10.0 million subject to the terms and conditions of the agreement, as amended, and extended the maturity date to November 12, 2023. The amendment also reduced the interest rate to be calculated at a floating rate per month equal to (a) the greater of 3.25% per year (previously 4.75% per year) or (ii) the Prime Rate published by The Wall Street Journal, plus (b) 1.50 percentage points, plus an additional 5.00 percentage points during any period that an event of default has occurred and is continuing. As of December 31, 2021 the interest rate was 4.75% and the Company had no outstanding debt under this line of credit arrangement.

If the Company draws from the line of credit, the Company's obligations under the Credit Agreement are secured by a security interest in substantially all of the Company's current and future personal property assets, including intellectual property. Any borrowings, interest or other fees or obligations that the Company owes will become due and payable on the maturity date. The Credit Agreement includes quick ratio and minimum liquidity financial covenants. The Company is also subject to a number of affirmative and restrictive covenants, including covenants regarding delivery of financial statements, maintenance of inventory, payment of taxes, maintenance of insurance, dispositions of property, business combinations or acquisitions and incurrence of additional indebtedness, among other customary covenants. The Company was in compliance with all covenants as of December 31, 2021.

Debt Issuance Costs

For the years ended December 31, 2021 and 2020, the Company incurred debt issuance costs of approximately $110,000 and $49,000, respectively, in connection with this line of credit arrangement and had an unamortized balance of approximately $59,000 as of December 31, 2021. 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 remaining unamortized deferred asset will be amortized over the remaining life of the line of credit arrangement.

Note 10. Deferred Revenue

In December 2018, the Company entered into a supply agreement with Nestec Ltd. (Nestlé), pursuant to which Nestlé is the 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, the Company received an upfront fee of $4.0 million in January 2019. In December 2020, the Company also received $1.0 million for the launch of product in certain territory pursuant to the supply agreement. The Company determined that both the $4.0 million upfront fee and the $1.0 million product launch fee are treated as advance payments for future performance obligations, and utilized output method to recognize the allocated transaction price for this performance obligation as products are supplied over the duration of the exclusivity period. In utilizing output method, the Company estimated total delivery volume based on forecast inputs received from Nestlé on expected purchases of NIAGEN® over the course of the supply agreement.

Revenue recognized from deferred revenue and the corresponding deferred revenue balance for the periods indicated is as follows:

	Year Ended December 31,		At December 31,	
(In thousands)	**2021**	**2020**	**2021**	**2020**
Revenue recognized from deferred revenue	$ 95	$ 432		
Deferred revenue balance			$ 4,346	$ 4,441

Note 11. Income Taxes

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:

	Year Ended December 31,	
	2021	**2020**
Federal income tax expense at statutory rate	(21.0)%	(21.0)%
State income tax, net of federal benefit	(4.8)	(5.7)
Permanent differences	(1.8)	1.4
Change in state tax rate	(0.1)	(0.1)
Changes of state net operating losses	2.8	(0.3)
Change in stock options and restricted stock	(4.9)	0.3
Change in valuation allowance	29.8	25.2
Other	—	0.2
Effective tax rate	0.0 %	0.0 %

The Company's deferred tax assets and liabilities for the periods indicated are summarized below:

(In thousands)	December 31, 2021	December 31, 2020
Deferred tax assets:		
Net operating loss carryforward	$ 36,136	$ 28,496
Stock options and restricted stock	4,805	5,051
Interest expense	244	220
Inventory reserve	399	272
Allowance for doubtful accounts	17	50
Accrued expenses	1,073	1,190
Deferred revenue	880	5
Leasehold improvements and equipment	74	32
Intangibles	95	85
Operating leases	85	96
	43,808	35,497
Less: Valuation allowance	(43,363)	(35,244)
Total deferred tax assets	445	253
Deferred tax liabilities:		
Prepaid expenses	(445)	(253)
Total deferred tax liabilities	(445)	(253)
Net deferred tax assets (liabilities)	$ —	$ —

As of December 31, 2021 and 2020, the Company maintained a full valuation allowance against the entire deferred income tax balance which resulted in an effective tax rate of 0% for both of the years ended December 31, 2021, and 2020. The Company increased its valuation allowance by approximately $8.1 million to $43.3 million as of December 31, 2021 from $35.2 million as of December 31, 2020. For fiscal year 2021, the Company identified no U.S. tax on global intangible low-taxed income (GILTI) due to a loss.

As of December 31, 2021, the Company’s net operating loss (NOL) carryforwards for federal and state income tax purposes are approximately $138.1 million and $106.6 million, respectively, portions of which begin to expire in the years ending December 31, 2023 and 2022, respectively. The Company’s federal NOL carryforward of $98.1 million generated in tax years beginning after December 31, 2017 may be carried forward indefinitely but the deductibility of such NOL carryforwards in taxable years beginning after December 31, 2020, is limited to 80% of taxable income.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) was enacted in response to the COVID-19 pandemic. The CARES Act, among other provisions, increases the limitation on the allowed business interest expense deduction from 30% to 50% of adjusted taxable income for tax years beginning January 1, 2019 and 2020 and allows businesses to immediately expense the full cost of Qualified Improvement Property, retroactive to tax years beginning on or after January 1, 2018 . Additionally, the CARES Act permits NOL carryforwards and carrybacks to offset 100% of taxable income for taxable years beginning before 2021. In addition, the CARES Act allows NOLs incurred in 2018, 2019, and 2020 to be carried back to each of the five preceding taxable years to generate a refund of previously paid income taxes. The CARES Act has not materially impacted the Company’s income tax provision.

Under the Internal Revenue Code of 1986, as amended (the Code), certain ownership changes may subject the Company to annual limitations on the utilization of its net operating loss carryforwards. The Company determined that stock issued during fiscal year 2021 did not create a change in control under the Section 382 of the Code. 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 major income tax jurisdiction. The Company has not identified any material uncertain tax positions requiring a reserve as of December 31, 2021 or December 31, 2020.

Note 12. Related Party Transactions

The sale of consumer products to related parties and corresponding receivable balances for the periods indicated are as follows:

	Net Sales		Trade Receivable as of	
	Year Ended December 31,		December 31,	
	2021	2020	2021	2020
A.S. Watson Group*	$9.3 million	$7.7 million	$2.1 million	$0.9 million
Horizon Ventures*(1)	—	$1.6 million	—	—
Total	**$9.3 million**	**$9.3 million**	**$2.1 million**	**$0.9 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.

(1) During the year ended December 31, 2020, Horizon Ventures made purchases to donate to the healthcare workers in Hong Kong hospitals. Horizon Ventures had insignificant sales during the year ended December 31, 2021.

Note 13. Share-Based Compensation

Stock Option Plans

The Company grants awards to recipients through the 2017 Equity Incentive Plan, as amended (the 2017 Plan), which was approved by stockholders and the Board of Directors. The 2017 Plan provided for the issuance of shares that total no more than the sum of (i) 14,500,000 new shares, (ii) approximately 384,000 unallocated shares remaining available for the grant of new awards under the Second Amended and Restated 2007 Equity Incentive Plan, (iii) any returning shares such as forfeited, cancelled, or expired shares and (iv) 500,000 shares pursuant to an inducement award. The number of shares available to be issued under the 2017 Plan will be reduced by (i) one share for each share that relates to an option or stock appreciation right award and (ii) 1.5 shares for each share which relates to an award other than a stock option or stock appreciation right award (a full-value award). As of December 31, 2021, there were approximately 5.0 million remaining shares available for issuance under this plan. Options expire 10 years from the date of grant.

General Vesting Conditions

The Company's stock options and restricted stock unit awards are generally subject to a one-year cliff vesting period after which 1/3 of the shares vest with the remaining shares vesting ratably over a two-year period subject to the passage of time. Restricted stock awards granted by the Company to employees have vesting conditions that are unique to each award. Additionally, certain stock option awards are market or performance based and vest based on certain triggering events established by the Compensation Committee.

Stock Options

The fair value of the Company's stock options that are not market or performance 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 periods indicated:

	Year Ended December 31,	
Weighted Average:	**2021**	**2020**
Expected term (years)	5.8	5.8
Volatility	75 %	67 %
Risk-free rate	1 %	1 %
Dividend Yield	0 %	0 %

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 activity of service period-based stock options during the periods indicated:

(In thousands except per-share data and remaining contractual term)	Number of Options	Weighted Average Exercise Price	Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2019	9,509	$ 3.86	6.9	$ 6,315
Options Granted	3,609	4.18		
Options Exercised	(1,052)	3.84		1,271
Options Forfeited / Expired	(1,233)	3.98		
Outstanding at December 31, 2020	10,833	$ 3.96	6.8	$ 10,472
Options Granted	1,724	8.67		
Options Exercised	(2,146)	4.34		13,301
Options Forfeited / Expired	(916)	4.83		
Outstanding at December 31, 2021	9,495	$ 4.65	6.5	$ 2,452 *
Exercisable at December 31, 2021	6,828	$ 3.77	5.5	$ 2,256 *

*The aggregate intrinsic values in the table above are based on the Company's stock price of $3.74, which is the closing price of the Company's stock on the last day of business for the period ended December 31, 2021

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 activity of performance based stock options during the periods indicated:

(In thousands except per-share data and remaining contractual term)	Number of Shares	Weighted Average Exercise Price	Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2019	42	$ 1.89	3.1	$ 101
Options Granted	164	4.34		
Options Exercised	(42)	1.89		100
Options Forfeited	(83)	4.34		
Outstanding at December 31, 2020	81	$ 4.34	3.1	$ 37
Options Granted	—	—		
Options Exercised	(40)	4.34		401
Options Forfeited	—	—		
Outstanding and Exercisable at December 31, 2021	41	$ 4.34	2.1	$ — *

*The aggregate intrinsic values in the table above are based on the Company's stock price of $3.74, which is the closing price of the Company's stock on the last day of business for the period ended December 31, 2021

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 activity of market based stock options during the periods indicated:

(In thousands except per-share data and remaining contractual term)	Number of Shares	Weighted Average Exercise Price	Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2019	1,000	$ 4.24	7.8	$ 70
Options Granted	—	—		
Options Exercised	—	—		—
Options Forfeited	—	—		
Outstanding at December 31, 2020	1,000	$ 4.24	6.8	$ 560
Options Granted	—	—		
Options Exercised	—	—		—
Options Forfeited	—	—		
Outstanding and Exercisable at December 31, 2021	1,000	$ 4.24	5.8	$ — *

*The aggregate intrinsic values in the table above are based on the Company's stock price of $3.74, which is the closing price of the Company's stock on the last day of business for the period ended December 31, 2021.

Restricted Stock Units

The following table summarizes activity of restricted stock units during the periods indicated:

(In thousands except per share fair value)	Number of Units	Weighted Average Fair Value
Unvested shares at December 31, 2019	—	$ —
Granted	—	—
Vested	—	—
Forfeited	—	—
Unvested shares at December 31, 2020	—	$ —
Granted	135	10.29
Vested	—	—
Forfeited	(20)	10.77
Unvested shares at December 31, 2021	115	$ 10.21
Expected to vest as of December 31, 2021	115	$ 10.21

Restricted Stock Awards

The following table summarizes activity of restricted stock awards during the periods indicated:

(In thousands except per share fair value)	Number of Awards	Weighted Average Fair Value
Unvested shares at December 31, 2019	183	$ 3.25
Granted	—	—
Vested	—	—
Forfeited	—	—
Unvested shares at December 31, 2020	183	$ 3.25
Granted	—	—
Vested	—	—
Forfeited	—	—
Unvested shares at December 31, 2021	183	$ 3.25
Expected to vest as of December 31, 2021	183	$ 3.25

Share-based Compensation

Share-based compensation expenses for the years ended December 31, 2021 and December 31, 2020 were as follows:

	Year Ended December 31,	
(In thousands)	**2021**	**2020**
Share-based compensation expense		
Cost of sales	**$ 204**	$ 142
Sales and marketing	**1,689**	1,282
Research and development	**877**	551
General and administrative	**3,425**	4,961
Total	**$ 6,195**	$ 6,936

In future periods, the Company expects to recognize approximately $9.4 million and $0.9 million in share-based compensation expense in future periods for unvested options and unvested restricted stock units, respectively, that were outstanding as of December 31, 2021. Future share-based compensation expense will be recognized over 2.0 and 2.3 weighted average years for unvested options and restricted stock units, respectively.

Note 14. Stock Issuance

On February 20, 2021, the Company entered into a Securities Purchase Agreement with EverFund (the Financing) pursuant to which the Company agreed to sell and issue approximately 3.8 million shares of common stock at a price of $6.50 per share. On February 23, 2021, the Company closed the Financing and received proceeds of $24.9 million, net of offering costs of $0.1 million .

During June 2021, the Company sold an aggregate of 0.2 million shares of common stock under the ATM Facility and received proceeds of $1.9 million, net of offering costs and commissions of $0.3 million, at an average price of $10.56 per share. For additional information related to the ATM facility and transaction see Note 2, *Liquidity*.

Note 15. Commitments and Contingencies

Purchase obligations

From time to time, the Company enters into purchase obligations with vendors for goods and services required in its operations. The Company's purchase obligations for good and services primarily consist of inventory. Future minimum payments under purchase obligations as of December 31, 2021 are as follows:

(In thousands)

Year	Amount
2022	$ 19,710
2023	3,500
	$ 23,210

Royalty

The Company has various 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 royalty payments based on contractual minimums and expire at various dates. In addition, the Company is required to pay a range of 1% 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, 2021 and 2020 were approximately $1.8 million and $1.9 million, respectively, under these agreements.

As of December 31, 2021, future minimum royalties including license maintenance fees for the next five years are as follows:

(In thousands)

Year	Amount
2022	$ 418
2023	419
2024	430
2025	417
2026	369
	$ 2,053

Legal proceedings

1. Elysium Health, LLC

(A) California Action

On December 29, 2016, ChromaDex 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 (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 filed a fifth amended complaint that added an individual, Mark Morris, as a defendant. Elysium and Morris (Defendants) moved to dismiss on December 21, 2018. The court denied Defendants' motion on February 4, 2019. Defendants filed their answer to ChromaDex's fifth amended complaint on February 19, 2019. ChromaDex filed an answer to Elysium's restated counterclaims on March 5, 2019. Discovery closed on August 9, 2019.

On August 16, 2019, the parties filed motions for partial summary judgment as to certain claims and counterclaims. The parties filed opposition briefs on August 28, 2019, and reply briefs on September 4, 2019. On October 9, 2019, among other things, the court vacated the previously scheduled trial date, ordered supplemental briefing with respect to certain issues related to summary judgment. Elysium filed its opening supplemental brief on October 30, 2019, ChromaDex filed its opening supplemental brief on November 18, 2019, and Elysium filed a reply brief on November 27, 2019, and the court heard argument on January 13, 2020. On January 16, 2020, the court granted both parties' motions for summary judgment in part and denied both in part. On ChromaDex's motion, the court granted summary judgment in favor of ChromaDex on Elysium's counterclaims for (i) breach of contract related to manufacturing NIAGEN® according to the defined standard, selling NIAGEN and ingredients that are substantially similar to pterostilbene to other customers, distributing the NIAGEN® product specifications, and failing to provide information concerning the quality and identity of NIAGEN®, and (ii) breach of the implied covenant of good faith and fair dealing. The court denied summary judgment on Elysium's counterclaims for (i) fraudulent inducement of the Trademark License and Royalty Agreement, dated February 3, 2014, by and between ChromaDex and Elysium (License Agreement), (ii) patent misuse, and (iii) unjust enrichment. On Elysium's motion, the court granted summary judgment in favor of Elysium on ChromaDex's claim for damages related to $110,000 in avoided costs arising from documents that Elysium used in violation of the Supply Agreement, dated February 3, 2014, by and between ChromaDex and Elysium, as amended (NIAGEN® Supply Agreement). The court denied summary judgment on Elysium's counterclaim for breach of contract related to certain refunds or credits to Elysium. The court also denied summary judgment on ChromaDex's breach of contract claim against Morris and claims for disgorgement of $8.3 million in Elysium's resale profits, $600,000 for a price discount received by Elysium, and $684,781 in Morris's compensation.

Following the court's January 16, 2020 order, ChromaDex's claims asserted in the California Action, among other allegations, were that (i) Elysium breached the Supply Agreement, dated June 26, 2014, by and between ChromaDex and Elysium (pTeroPure® Supply Agreement), by failing to make payments to ChromaDex for purchases of pTeroPure® and by improper disclosure of confidential ChromaDex information pursuant to the pTeroPure® Supply Agreement, (ii) Elysium breached the NIAGEN® Supply Agreement, by failing to make payments to ChromaDex for purchases of NIAGEN®, (iii) Defendants willfully and maliciously misappropriated ChromaDex 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 documents and information, (v) Morris breached his fiduciary duty to ChromaDex by lying to and competing with ChromaDex while still employed there, and (vi) Elysium aided and abetted Morris's breach of fiduciary duty. ChromaDex sought 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'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.

Elysium's claims alleged in the California Action were that (i) ChromaDex breached the NIAGEN® Supply Agreement by not issuing certain refunds or credits to Elysium, (ii) ChromaDex fraudulently induced Elysium into entering into the License Agreement, (iv) ChromaDex's conduct constitutes misuse of its patent rights, and (v) ChromaDex was unjustly enriched by the royalties Elysium paid pursuant to the License Agreement. Elysium sought damages for ChromaDex's alleged breaches of the NIAGEN® 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 has engaged in patent misuse.

On January 17, 2020, Elysium moved to substitute its counsel. The same day, the court ordered hearing on that motion for January 21, 2020, and granted Elysium's motion at the hearing. On January 23, 2020, the court issued a scheduling order that, among other things, set trial on the remaining claims to begin on May 12, 2020. On March 19, 2020, in light of the global 2019 coronavirus disease (COVID-19) pandemic and ongoing private mediation efforts, the parties jointly stipulated to adjourn the trial date. The court vacated the trial date on March 20, 2020. The court held a telephonic status conference on June 9, 2020, during which the court indicated that it will reschedule the jury trial as soon as conditions permit. On November 4, 2020, the parties submitted a joint status report indicating that they will propose a new trial date as soon as the court announces that it will resume jury trials. On November 18, 2020, the court set trial to begin on September 21, 2021.

On December 11, 2020, Elysium filed a "Notice of Correction of Depositions" related to the depositions of its chief executive officer, Eric Marcotulli, and chief operating officer, Daniel Alminana, both taken in March 2019. On March 8, 2021, based in part on information that Elysium submitted under seal with that notice, ChromaDex filed a motion for sanctions or, in the alternative, reconsideration of the court's January 16, 2020 order regarding summary judgment, in which ChromaDex moved to dismiss Elysium's third, fourth, and fifth counterclaims. Elysium's opposition brief was filed on March 22, 2021. ChromaDex filed its reply brief on March 29, 2021. On April 27, 2021, the court denied ChromaDex, Inc's motion for terminating sanctions, but concluded that the evidence at issue in the motion will be admissible at trial.

The jury trial portion of the case commenced on September 21, 2021. The jury returned a verdict on September 27, 2021. The verdict found (i) Elysium liable for breaches of the NIAGEN® and pTeroPure® Supply Agreements for failing to pay for purchases of the ingredients totaling approximately $3.0 million, (ii) Mark Morris liable for breach of a confidentiality agreement, requiring him to disgorge approximately $17,307, (iii) ChromaDex liable for breaching the NIAGEN® Supply Agreement for not issuing certain refunds or credits to Elysium in the amount of $625,000, and (iv) ChromaDex liable for fraudulent inducement of the Licensing Agreement in the amount of $250,000, along with $1,025,000 in punitive damages arising from the same counterclaim. On January 17, 2022, ChromaDex filed a motion for prejudgment interest on the approximately $3.0 million in damages awarded by the jury for Elysium's breaches of the NIAGEN® and pTeroPure® Supply Agreements. Elysium's opposition brief was filed on January 24, 2022, and ChromaDex, Inc.'s reply brief was filed on January 31, 2022. On February 10, 2022, the court denied ChromaDex Inc.'s motion for prejudgment interest. On February 18, 2022, ChromaDex, Inc. and Elysium jointly filed a notice informing the court that ChromaDex, Inc. had filed in the U.S. District Court for the Southern District of New York a motion to enforce a settlement agreement between ChromaDex, Inc. and Elysium that ChromaDex, Inc. asserts would materially affect the California Action.

(B) 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 (Elysium SDNY Complaint). Elysium Health alleged in the Elysium SDNY Complaint that ChromaDex 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 averred that the citizen petition made Elysium Health's product appear dangerous, while casting ChromaDex's own product as safe. The Elysium SDNY Complaint asserted 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. On October 26, 2017, ChromaDex 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 filed its reply on November 9, 2017.

On October 26, 2017, ChromaDex filed a complaint in the United States District Court for the Southern District of New York against Elysium Health (ChromaDex SDNY Complaint). ChromaDex 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 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'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's motion for summary judgment 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.

ChromaDex filed an amended complaint on March 27, 2019, adding new claims against Elysium Health for false advertising and unfair competition under the Lanham Act, 15 U.S.C. § 1125(a). On April 10, 2019, Elysium Health answered the amended complaint and filed amended counterclaims, also adding new claims against ChromaDex for false advertising and unfair competition under the Lanham Act, 15 U.S.C. § 1125(a). On July 1, 2019, Elysium Health filed further amended counterclaims, adding new claims under the Copyright Act §§ 106 & 501. On February 9, 2020, ChromaDex filed a motion for leave to amend its complaint to add additional claims against Elysium Health for false advertising and unfair competition. On February 10, 2020, Elysium Health filed a motion for leave to amend its counterclaims to identify allegedly false and misleading statements in ChromaDex's advertising. Those motions were both granted after respective stipulations. On March 12, 2020, Elysium Health answered the second amended complaint. On March 13, 2020, ChromaDex filed an answer and objection to Elysium Health's third amended counterclaims.

On December 14, 2020, Elysium Health filed a motion to supplement and amend its counterclaims to add claims regarding alleged advertising related to COVID-19, to add an allegation about a change to the ChromaDex website, and to remove its copyright infringement claim under the Copyright Act. On January 19, 2021, the Court denied Elysium Health's motion to add claims regarding alleged advertising related to COVID-19. The Court granted the unopposed requests to add an allegation about a change to ChromaDex's website and to remove Elysium's Copyright Act claim. Pursuant to the Court's order, Elysium filed fourth amended counterclaims on April 21, 2021.

All discovery closed on April 23, 2021. The Court vacated a previously scheduled joint pretrial order and trial date because of COVID-19, and the Court has informed the Parties that trial date will be rescheduled in November or December 2021.

Both parties filed dispositive and *Daubert* motions on June 4, 2021. Opposition papers were filed by both parties on June 25, 2021, and reply papers were filed on July 9, 2021.

On January 10, 2022, both parties appeared for oral argument on the dispositive and Daubert motions.

On February 3, 2022, ChromaDex reached a settlement agreement with Elysium in order to resolve the SDNY action in its entirety as well as the claims tried to the jury in the Central District of California (the "Settlement Agreement"). Shortly thereafter, before the parties could notify the Court, the Court issued a ruling on the pending dispositive and Daubert motions, dismissing ChromaDex's SDNY complaint in its entirety on the grounds that ChromaDex's damages were uncertain, and dismissing some of Elysium's claims. Elysium then attempted to renege on the Settlement Agreement. ChromaDex thereafter filed a motion to enforce the Settlement Agreement in its entirety on February 16, 2022. Elysium's opposition to that motion was filed on March 2, 2022, and ChromaDex's reply was filed on March 9, 2022.

The Company is unable to predict the outcome of the Elysium SDNY Complaint and, at this time, cannot reasonably estimate the possible loss or range of loss with respect to the legal proceeding discussed herein. As of December 31, 2021, ChromaDex did not accrue a potential loss for the Elysium SDNY Complaint because ChromaDex believes that the allegations are without merit and thus it is not probable that a liability has been incurred.

(C) Delaware - Patent Infringement Action

On September 17, 2018, ChromaDex 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 infringes U.S. Patent Nos. 8,197,807 ('807 Patent) and 8,383,086 ('086 Patent) that comprise compositions containing isolated nicotinamide riboside held by Dartmouth and licensed exclusively to ChromaDex 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 filed an opposition brief on November 21, 2018 detailing the issues with Elysium's motion to stay. In particular, ChromaDex 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 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's prediction, ChromaDex informed the Delaware court of the PTAB's decision on January 17, 2019. On June 19, 2019, the Delaware court granted in part and denied in part Elysium's motion, ordering that the case was stayed pending the resolution of Elysium's patent misuse counterclaim in the California Action.

On November 1, 2019, ChromaDex filed a motion to lift the stay due to changed circumstances in the California Action, among other reasons. Briefing on the motion was completed on November 22, 2019. On January 6, 2020, the Delaware court issued an oral order instructing the parties to submit a joint status report after the January 13, 2020 motions hearing in the California Action. The joint status report was submitted on January 30, 2020. On February 4, 2020, the Delaware court issued an order granting ChromaDex's motion to lift the stay and setting a scheduling conference for March 10, 2020. On March 19, 2020, the Delaware court entered a scheduling order, which, among other things, set the claim-construction hearing for December 17, 2020 and trial for the week of September 27, 2021. On April 17, 2020, ChromaDex served infringement contentions. Elysium filed a Second Amended Answer on July 10, 2020.

On April 24, 2020, ChromaDex moved for leave to amend the complaint to add Healthspan Research, LLC as a plaintiff. On May 5, 2020, Elysium filed its opposition to ChromaDex's motion for leave to amend and moved to dismiss ChromaDex for alleged lack of standing. ChromaDex filed its opposition to Elysium's motion to dismiss and reply in support of its motion to amend on May 19, 2020. Elysium filed its reply in support of its motion to dismiss on May 26, 2020. The Court held a hearing on the motion for leave to amend the complaint and Elysium's motion to dismiss on September 16, 2020. On December 15, 2020, the Court entered orders (i) granting in part and denying in part Elysium's motion to dismiss ChromaDex for alleged lack of standing; and (ii) denying ChromaDex's motion for leave to amend. ChromaDex filed a motion for reargument on December 29, 2020. Elysium filed a response to the motion for reargument on January 28, 2021. ChromaDex filed a motion for leave to file a reply on February 8, 2021. Elysium filed a response to the motion for leave to file a reply on February 12, 2021. ChromaDex filed a reply to the motion for leave to file a reply on February 19, 2021. The Court granted the motion for leave to file the reply on April 26, 2021, and denied the motion for reargument on April 27, 2021.

On July 22, 2020 the parties filed a Joint Claim Construction Chart and respective motions for claim construction. The parties filed a Joint Claim Construction Brief on November 5, 2020. The Court held a Markman hearing on claim-construction issues on December 17, 2020. The Court entered a claim-construction ruling on January 5, 2021.

Fact discovery closed on January 26, 2021. Opening expert reports were served on February 9, 2021. Responsive expert reports were served on March 9, 2021. Reply expert reports were served on March 30, 2021. Both parties filed dispositive and *Daubert* motions on April 27, 2021.

On September 21, 2021, the Court granted Elysium's motion for summary judgment that the claims of the '807 and '086 patents are invalid based on patent-ineligible subject matter. ChromaDex filed a notice of appeal on November 2, 2021. ChromaDex's opening brief was filed on February 2, 2022. Elysium's response brief is due on March 14, 2022, absent extension. If the appeal is unsuccessful or if on remand the Court dismisses ChromaDex's claims for some other reason, that could reduce or eliminate any competitive advantage the Company may otherwise have had.

2. Thorne Research, Inc.

(A) Inter Partes Review Proceedings

On or around September 28, 2020, Thorne Research, Inc. (Thorne) provided notice to ChromaDex that it intended to terminate its March 25, 2019 Supply Agreement and subsequent amendments with ChromaDex, effective as of December 31, 2020. A discussion between ChromaDex and Thorne followed, and Thorne asserted that it could challenge the '086 Patent in an inter partes review (IPR) proceeding on the basis of prior art, but would be willing to enter into a mutual existence agreement that would permit Thorne to source NR from a third party. Thorne did not offer substantive information supporting a prior art claim or about the nature of the threatened IPR.

On December 1, 2020, Thorne filed a petition for IPR of the '086 Patent. Dartmouth's preliminary response to the petition was filed on March 15, 2021. On June 10, 2021, the Patent Trial and Appeal Board (PTAB) issued a decision instituting an IPR on the '086 Patent. On September 21, 2021, Dartmouth filed its Patent Owner Response. On December 21, 2021, Thorne filed its reply.

On February 1, 2021, Thorne filed a petition for IPR of the '807 Patent. Dartmouth's preliminary response to the petition was filed on May 18, 2021. On August 12, 2021, the Patent Trial and Appeal Board (PTAB) issued a decision instituting an IPR on the '807 Patent. On November 9, 2021, Dartmouth filed its Patent Owner Response. On February 15, 2022, Thorne filed its reply.

(B) Southern District of New York – Patent Infringement Action

On May 12, 2021, ChromaDex and Trustees of Dartmouth College filed a patent infringement complaint in the United States District Court for the Southern District of New York. The complaint alleges that certain of Thorne's dietary supplements containing isolated NR infringe the '807 and '086 Patents, which claim compositions containing isolated nicotinamide riboside and are held by Dartmouth and licensed exclusively to ChromaDex. On July 6, 2021, Thorne filed an answer and counterclaims to the complaint. The answer asserts various affirmative defenses and denies that Plaintiffs are entitled to any relief. The counterclaims seek declaratory judgment of patent invalidity for the '807 and '086 Patents. On July 8, 2021, the parties filed a proposed stipulation and order staying the matter pending issuance of the institution decision in the '807 Patent IPR. On July 9, 2021, the Court granted the stipulation and order to stay. On August 19, 2021, the parties filed a proposed stipulation and order staying the matter pending issuance of final written decisions in the IPRs. On August 20, 2021, the Court granted the stipulation and order to stay.

3. Erica Martinez

(A) California Action

On October 1, 2021, Erica Martinez, a former employee of ChromaDex, filed a complaint in the Orange County Superior Court alleging claims against ChromaDex for: (1) disability discrimination, (2) failure to accommodate a disability, (3) failure to engage in the interactive process, (4) retaliation for taking California Family Rights Act leave, and (5) failure to prevent discrimination and harassment. Martinez's allegations are based primarily upon Martinez's claim that her son was allegedly diagnosed with Autism Spectrum Disorder in or around July 17, 2019, and ChromaDex allegedly retaliated against, and ultimately terminated, her for taking time off to care for her son and attend his doctors' appointments. ChromaDex has not been served with the Summons and Complaint. The parties have settled this matter and the request for dismissal, with prejudice, of Martinez's claims was entered on January 25, 2022.

4. Other

(A) Rejuvenation Therapeutics

On September 15, 2020, the Company received a letter from a customer, Rejuvenation Therapeutics Corp. (Rejuvenation), and has received subsequent correspondence, requesting a full refund of approximately $1.6 million of NIAGEN® it purchased, alleging breaches of the supply agreement between the parties. As of December 31, 2021, the Company has recorded a return liability of approximately $0.5 million, which the Company offered to settle in good faith. On May 13, 2021, Rejuvenation filed a complaint in the Superior Court of the State of California, County of Orange, asserting causes of action for Concealment and Negligent Misrepresentation. On July 20, 2021, Rejuvenation filed an amended complaint adding a claim for Declaratory Relief. The Company filed a demurrer on September 3, 2021. On February 1, 2022, the Court sustained ChromaDex's demurrer in its entirety with leave to amend as to the claims for Concealment and Negligent Misrepresentation, and without leave to amend as to the claim for Declaratory Relief. On February 16, 2022, Rejuvenation filed a Second Amended Complaint, asserting causes of action for Fraud and Negligent Misrepresentation. The Company believes these claims are without merit and will aggressively defend itself if a reasonable settlement cannot be reached. The Company does not anticipate that the ultimate resolution of this matter will be material to the Company's operations, financial condition or cash flows.

5. Contingencies

(A) In September 2019, the Company received a letter from a licensor stating that the Company owed the licensor $1.6 million plus interest for sublicense fees as a result of the Company entering into a supply agreement with a customer. After reviewing the relevant facts and circumstances, the Company believes that the Company does not owe any sublicense fees to the licensor and has corresponded with the licensor to resolve the matter. The Company does not believe that the ultimate resolution of this matter will be material to the Company's results of operations, financial condition or cash flows.

(B) On November 17, 2020, the Company received a warning letter (the Letter) from the United States Food and Drug Administration (FDA) and Federal Trade Commission (FTC). The Letter references statements issued by the Company relating to preclinical and clinical research results involving nicotinamide riboside and COVID-19. The statements were included in press releases and referenced in social media posts.

On November 18, 2020, the Company provided a response to the Letter stating that the Company disagrees with the assertion in the Letter that the Company's products are intended to mitigate, prevent, treat, diagnose or cure COVID-19 in violation of certain sections of the Federal Food, Drug, and Cosmetic Act or that they were unsubstantiated under the FTC Act, but rather accurately reflected the state of the science and the results of scientific research. Nonetheless, the Company also responded that it had deleted social media references to the studies and removed related press releases from its website.

On April 30, 2021, the Company received an additional warning letter (the Second Letter) from only the FTC. The Second Letter references the original Letter, and cites additional statements issued by the Company and certain officers and advisors of the Company relating to nicotinamide riboside and scientific studies related to COVID-19. The Second Letter asserts that such statements contain coronavirus-related prevention or treatment claims and are deceptive in violation of the Federal Trade Commission Act.

On May 4, 2021, the Company provided a response to the Second Letter stating that it had removed the social media posts from its accounts identified in the Second Letter and requested that third parties remove the post from their accounts that were identified in the Second Letter. The Company stated that the press release identified in the Second Letter is appropriate and not a deceptive act or practice under applicable law. The Company affirmed its belief in the need to accurately report on the scientific results of its studies to its investors and welcomed the opportunity to discuss its research and development program with the FTC and receive guidance on future releases.

The Company does not believe that the ultimate resolution of this matter will be material to the Company's results of operations, financial condition or cash flows.

Note 16. Business Segments and Geographical Distribution

The Company has the following three reportable segments for the years ended December 31, 2021 and 2020:

- *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.
- *Analytical reference standards and services segment:* includes supply of phytochemical reference standards and other research and development services.

The "Corporate and other" classification includes corporate items not allocated by the Company to each reportable segment. Additionally, there are no intersegment sales that require elimination. The Company's three reportable segments are significant operating segments that offer differentiated services. This structure reflects its current operational and financial management and provides the best structure to maximize the Company's objectives and investment strategy, while maintaining financial discipline. The Company's Chief Executive Officer, who is its chief operating decision maker (CODM), reviews financial information for each operating segment to evaluate performance and allocate resources. The Company evaluates performance and allocates resources based on reviewing gross margin by reportable segment. The Company's CODM does not review assets by segment in his evaluation and therefore assets by segment are not disclosed below.

The following tables set forth financial information by segment:

Year Ended December 31, 2021 *(In thousands)*	**Consumer Products segment**	**Ingredients segment**	**Analytical Reference Standards and Services segment**	**Corporate and other**	**Total**
Net sales	$ 56,705	$ 7,407	$ 3,337	$ —	$ 67,449
Cost of sales	19,864	3,233	2,862	—	25,959
Gross profit	36,841	4,174	475	—	41,490
Operating expenses:					
Sales and marketing	27,821	46	485	—	28,352
Research and development	3,427	405	—	—	3,832
General and administrative	—	—	—	36,379	36,379
Operating expenses	31,248	451	485	36,379	68,563
Operating income (loss)	$ 5,593	$ 3,723	$ (10)	$ (36,379)	$ (27,073)

Year Ended December 31, 2020 *(In thousands)*	**Consumer Products segment**	**Ingredients segment**	**Analytical Reference Standards and Services segment**	**Corporate and other**	**Total**
Net sales	$ 47,090	$ 9,198	$ 2,969	$ —	$ 59,257
Cost of sales	17,541	3,593	2,849	—	23,983
Gross profit	29,549	5,605	120	—	35,274
Operating expenses:					
Sales and marketing	20,323	41	584	—	20,948
Research and development	2,972	443	—	—	3,415
General and administrative	—	—	—	30,765	30,765
Operating expenses	23,295	484	584	30,765	55,128
Operating income (loss)	$ 6,254	$ 5,121	$ (464)	$ (30,765)	$ (19,854)

Disaggregation of revenue

The Company disaggregates its revenue from contracts with customers by type of goods or services for each of its segments, as the Company believes this best depicts how the nature, amount, timing and uncertainty of its revenue and cash flows are affected by economic factors. See details in the tables below.

Year Ended December 31, 2021 *(In thousands)*	**Consumer Products Segment**	**Ingredients Segment**	**Analytical Reference Standards and Services Segment**	**Total**
TRU NIAGEN®, Consumer Product	$ 56,705	$ —	$ —	$ 56,705
NIAGEN® Ingredient	—	6,700	—	6,700
Subtotal NIAGEN® Related	56,705	6,700	—	63,405
Other Ingredients	—	707	—	707
Reference Standards	—	—	3,061	3,061
Consulting and Other	—	—	276	276
Subtotal Other Goods and Services	—	707	3,337	4,044
Total Net Sales	$ 56,705	$ 7,407	$ 3,337	$ 67,449

Year Ended December 31, 2020 *(In thousands)*	**Consumer Products Segment**	**Ingredients Segment**	**Analytical Reference Standards and Services Segment**	**Total**
TRU NIAGEN®, Consumer Product	$ 47,090	$ —	$ —	$ 47,090
NIAGEN® Ingredient	—	7,070	—	7,070
Subtotal NIAGEN® Related	47,090	7,070	—	54,160
Other Ingredients	—	2,128	—	2,128
Reference Standards	—	—	2,925	2,925
Consulting and Other	—	—	44	44
Subtotal Other Goods and Services	—	2,128	2,969	5,097
Total Net Sales	$ 47,090	$ 9,198	$ 2,969	$ 59,257

Net sales from international sources*

	Year Ended December 31,	
(In millions)	**2021**	**2020**
Consumer Products Segment	$ 18.0	$ 16.9
Ingredients Segment	0.7	$ 1.8
Analytical Reference Standards and Services Segment	1.1	$ 1.3
Total net sales from international sources	$ 19.8	$ 20.0

*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 are defined as customers whose sales or accounts receivables individually consist of more than 10% of total sales or total trade receivables, respectively. Percentage of revenues from major customers of the Company's consumer products segment for the periods indicated were as follows:

	Year Ended December 31,	
Major Customers	**2021**	**2020**
A.S. Watson Group - Related Party	13.8 %	13.0 %

The percentage of the amounts due from major customers to total accounts receivable, net for the periods indicated were as follows:

	At December 31,	
Major Customers	**2021**	**2020**
A.S. Watson Group - Related Party	39.6 %	31.9 %
Life Extension	22.1 %	17.7 %
Persona	10.3 %	*
Amazon Marketplaces	*	12.0 %
Matakana Health	*	11.1 %

* Represents less than 10%

Disclosure of major vendor

The Company's major vendor who accounted for more than 10% of the Company's total accounts payable is as follows:

	At December 31,	
Major Vendor	**2021**	**2020**
Vendor A	32.1 %	39.7 %

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, 2021. 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 ensure 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 ensure 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, 2021.

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, 2021. 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, 2021, our internal control over financial reporting was effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Previously Identified Material Weaknesses in Internal Control Over Financial Reporting

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

We previously identified and disclosed in our Annual Report on Form 10-K for the year ended December 31, 2020 a material weakness in our internal control over financial reporting which resulted from a deficiency in our disclosure controls and procedures which could have resulted in the Company not disclosing a material potential loss requiring a qualitative disclosure and recording a liability in consolidated financial statements under ASC 450 - Contingencies.

Remediation Efforts of Previously Disclosed Material Weaknesses

Subsequent to the evaluation made in connection with filing our Annual Report on Form 10-K for the year ended December 31, 2020, management, with the oversight of the Audit Committee of the Board of Directors, continued the process of remediating the material weakness.

During the year ended December 31, 2021, we completed our plans to remediate the material weakness by implementing and enhancing controls in the financial reporting close process surrounding the identification and inclusion of all new litigation, asserted and unasserted claims, and assessments over a material threshold in a log provided to the Company's disclosure committee for evaluation on a quarterly basis. Management completed testing and evaluation, and based on the result, determined that as of December 31, 2021, the control operated effectively for a sufficient period of time. Therefore management concluded that the material weakness previously identified has been remediated.

Changes in Internal Control over Financial Reporting

Except as noted above, 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.

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.

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.

Item 9B. Other Information

Effective March 10, 2022, the Board of Directors (the "Board") of ChromaDex Corporation (the "Company") adopted and approved amended and restated bylaws of the Company to, among other things, provide that the Board may in its sole discretion determine to hold meeting of stockholders solely by remote communications, limit the power and authority of an executive committee appointed by the Board, provide for electronic transmission of stockholder consent to the extent permitted by applicable law, and to consolidate a previous amendment.

The foregoing summary of the amended and restated bylaws is qualified in its entirety by reference to the complete text of the amended and restated bylaws, a copy of which is filed as Exhibit 3.3 with this Annual Report on Form 10-K and is incorporated herein by reference.

Item 9C. Disclosures regarding Foreign Jurisdictions that Prevent Inspections

Not Applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information required by this item will be contained in the Proxy Statement as follows:

- The information relating to our executive officers is to be included in the section entitled "Executive Officers,"
- The information relating to our directors and nominees for director is to be included in the section entitled "Election of Directors" and "Information Regarding the Board of Directors and Corporate Governance,"
- The information relating to our audit committee and audit committee financial expert is to be included in the section "Information Regarding the Board of Directors and Corporate Governance," and
- If required, the information regarding compliance with Section 16(a) of the Exchange Act is to be included in the section entitled "Delinquent Section 16(a) Reports."

Such information will be included in the Proxy Statement and is incorporated herein by reference.

We have adopted a written Code of Business Conduct and Ethics (Code of Conduct) 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 Code of Conduct is available on our website at www.chromadex.com. If we make any substantive amendments to the Code of Conduct or grant any waiver from a provision of the Code of Conduct 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 under the caption "Executive Officers and Management Compensation" 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 under the caption "Security Ownership of Certain Beneficial Owners and Management" 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 under the caption "Certain Relationships and Related Transactions" and "Information Regarding the Board of Directors and Corporate Governance" and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

Our independent registered public accounting firm is Marcum LLP, New York, NY, Audit Firm ID: 688.

The information required by this item is to be included in our Proxy Statement under the caption "Ratification of the Appointment of Independent Registered Public Accounting Firm" 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 to, and filed as Exhibit 2.1 to the Registrant's Current Report on Form 8-K (File No. 333-140056) filed with the Commission on June 24, 2008) (1)
3.1	Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to, and filed as Exhibit 3.1 to the Registrant'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 the Registrant (incorporated by reference to, and filed as Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 000-53290) filed with the Commission on April 12, 2016)
3.3	Amended and Restated Bylaws of the Registrant
4.1	Form of Stock Certificate representing shares of the Registrant's Common Stock (incorporated by reference to, and filed as Exhibit 4.1 of the Registrant'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 to, and filed as Exhibit 4.1 to the Registrant'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 Registrant, 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 to, and filed as Exhibit 4.2 to the Registrant'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 the Registrant's Common Stock effective as of January 1, 2016 (incorporated by reference to, and filed as Exhibit 4.4 to the Registrant'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 the Registrant's Common Stock effective as of December 10, 2018 (incorporated by reference to, and filed as Exhibit 4.5 to the Registrant's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 7, 2019)
4.6	Description of Common Stock of the Registrant (incorporated by reference to, and filed as Exhibit 4.6 to the Registrant's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 10, 2020)
4.7	Registration Rights Agreement, dated as of May 9, 2019, by and among the Registrant and the parties thereto (incorporated by reference to Exhibit 99.2 to the Registrant's Current Report on Form 8-K filed with the SEC on May 10, 2019)
4.8	Registration Rights Agreement, dated as of August 15, 2019, by and among the Registrant and the parties thereto (incorporated by reference to Exhibit 99.1 to the Registrant's Current Report on Form 8-K filed with the SEC on August 15, 2019)

Exhibit No.	Description
4.9	Registration Rights Agreement, dated as of April 27, 2020, by and among the Registrant and the parties thereto (incorporated by reference to Exhibit 99.2 to the Registrant's Current Report on Form 8-K filed with the SEC on April 29, 2020)
4.10	Registration Rights Agreement, dated as of February 20, 2021, by and among the Registrant and Everfund (incorporated by reference to Exhibit 99.2 to the Registrant's Current Report on Form 8-K filed with the SEC on February 22, 2022)
10.1	Second Amended and Restated 2007 Equity Incentive Plan effective March 13, 2007, as amended May 20, 2010 (incorporated by reference to, and filed as Appendix B to the Registrant'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 to, and filed as Exhibit 10.3 to the Registrant'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 to, and filed as Exhibit 10.4 to the Registrant'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 to, and filed as Exhibit 10.1 to the Registrant'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	License Agreement, dated March 25, 2010 between the University of Mississippi and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 000-53290) filed with the Commission on May 18, 2010)*
10.7	First Amendment to License Agreement, made as of June 3, 2011 between the University of Mississippi and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 000-53290) filed with the Commission on August 11, 2011)*
10.8	Restated and Amended License Agreement, effective as of June 3, 2015 between the University of Mississippi and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (File No. 000-53290) filed with the Commission on August 13, 2015)*
10.9	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 to, and filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 000-53290) filed with the Commission on November 6, 2014)*
10.10	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 to, and filed as Exhibit 10.8 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 10, 2016)*
10.11	Exclusive License Agreement, dated July 13, 2012 between Dartmouth College and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 10, 2016)
10.12	Exclusive License Agreement, dated March 7, 2013 between Washington University and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 10, 2016)
10.13	Amendment #1 to Exclusive License Agreement, effective as of December 15, 2015, between Washington University and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 10, 2016)
10.14	License Agreement, made as of August 1, 2013, between Green Molecular S.L., Inc. and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 10, 2016)
10.15	Exclusive License Agreement, effective as of May 16, 2014 between Dartmouth College and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 000-53290) filed with the Commission on August 12, 2014)*
10.16	First Amendment to Exclusive License Agreement, effective as of June 13, 2016, between Dartmouth College and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.10 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 10, 2016)*
10.17	License Agreement, effective as of October 15, 2014 between University of Mississippi and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.40 to the Registrant's Annual report on Form 10-K (File No. 000-53290) filed with the Commission on March 19, 2015)*

Exhibit No.	Description
10.18	First Amendment to Exclusive License Agreement, effective as of July 6, 2015, between University of Mississippi and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.7 to the Registrant's Quarterly report on Form 10-Q (File No. 001-37752) filed with the Commission on November 10, 2016)
10.19	Lease Agreement, made as of April 14, 2016, by and between Longmont Diagonal Investments LLC and ChromaDex Analytics, Inc. (incorporated by reference to and filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 000-53290) filed with the Commission on April 20, 2016)
10.20	First Amendment to Lease Agreement, dated August 3, 2020, by and between ChromaDex Analytics, Inc. and 62 1625-1751 S. Fordham LLC and 64 1625-1751 S. Fordham LLC (62 1625-1751 S. Fordham LLC and 64-1625-1751 S. Fordham LLC are successors-in-interest to Lease Agreement, made as of April 14, 2016, by and between ChromaDex Analytics, Inc and Longmont Diagonal Investments LLC) (incorporated by reference to Exhibit 10.8 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the SEC on November 4, 2020)
10.21	Form of Indemnity Agreement, between the Registrant and each of its existing directors and executive officers. (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 December 16, 2016)+
10.22	Amended and Restated Non-Employee Director Compensation Policy (incorporated by reference to, and filed as Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on August 9, 2018)+
10.23	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 to, and filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on May 11, 2017)
10.24	Form of Restricted Stock Award Agreement for Robert Fried (incorporated by reference to, and filed as Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on May 11, 2017)+
10.25	Amended and Restated Executive Employment Agreement, dated June 22, 2018, by and between Robert Fried and the Registrant (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)+
10.26	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 22, 2020)+
10.27	Lease, dated July 6, 2017, by and between 10900 WILSHIRE L.L.C and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.50 to the Registrant's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 7, 2019)
10.28	First Amendment to Lease, dated February 7, 2018, by and between 10900 WILSHIRE L.L.C and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.51 to the Registrant's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 7, 2019)
10.29	Second Amendment to Lease, dated June 30, 2018, by and between 10900 WILSHIRE L.L.C and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.52 to the Registrant's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 7, 2019)
10.30	Third Amendment to Lease, dated November 9, 2018, by and between 10900 WILSHIRE L.L.C and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.53 to the Registrant's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 7, 2019)
10.31	Executive Employment Agreement, dated October 5, 2017, by and between Kevin M. Farr and the Registrant (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 October 10, 2017)+
10.32	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 filed with the Commission on April 27, 2017)
10.33	Executive Employment Agreement, dated as of January 22, 2018, by and between Mark Friedman and the Registrant (incorporated by reference to and filed as Exhibit 10.72 to the Registrant's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 15, 2018)+
10.34	Supply Agreement, dated December 19, 2018, by and between ChromaDex, Inc. and Nestec Ltd. * ❖
10.35	Note Purchase Agreement, dated May 9, 2019, by and among ChromaDex Corporation and Winsave Resource Limited and Pioneer Step Holdings Limited (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 May 10, 2019)

Exhibit No.	Description
10.36	Omnibus Amendment to Note Purchase Agreement and Convertible Promissory Notes, dated June 30, 2019, by and among ChromaDex Corporation and Winsave Resource Limited and Pioneer Step Holdings Limited (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 July 1, 2019)
10.37	Securities Purchase Agreement, dated August 13, 2019, by and among ChromaDex Corporation and the purchasers therein (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 August 14, 2019)
10.38	Securities Purchase Agreement, dated April 27, 2020, by and among ChromaDex Corporation and Winsave Resources Limited and Pioneer Step Holdings Limited (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 April 29, 2020)
10.39	At Market Issuance Sales Agreement, dated as of June 12, 2020, by and among ChromaDex Corporation, B. Riley FBR, Inc. and Raymond James & Associates, Inc. (incorporated by reference to, and filed as Exhibit 1.2 to the Registrant's Registration Statement on Form S-3 (File No. 333-239144) filed with the Commission on June 12, 2020)
10.40	Business Financing Agreement, dated November 12, 2019, by and between ChromaDex Corporation and Western Alliance Bank (incorporated by reference to, and filed as Exhibit 10.45 to the Registrant's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 10, 2020)
10.41	First Modification to Business Financing Agreement dated October 7, 2020, by and between ChromaDex Corporation and Western Alliance Bank (incorporated by reference to Exhibit 10.43 to the Registrant's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 12, 2021)
10.42	Second Modification to Business Financing Agreement dated November 10, 2021, by and between ChromaDex Corporation and Western Alliance Bank ❖
10.43	Third Modification to Business Financing Agreement dated December 11, 2021 by and among Western Alliance Bank, ChromaDex Corporation, ChromaDex, Inc. and ChromaDex Analytics, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-37752) filed with the SEC on December 14, 2021)
10.44	Manufacturing and Supply Agreement, dated as of January 1, 2016, by and between ChromaDex, Inc. and W.R. Grace & Co.-Conn. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the SEC on November 4, 2020) **
10.45	Amendment to Manufacturing and Supply Agreement, dated as of February 27, 2017, by and between ChromaDex, Inc. and W.R. Grace & Co.-Conn. (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the SEC on November 4, 2020) **
10.46	Second Amendment to Manufacturing and Supply Agreement, dated as of January 1, 2018, by and between ChromaDex, Inc. and W.R. Grace & Co.-Conn. (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the SEC on November 4, 2020) **
10.47	Third Amendment to Manufacturing and Supply Agreement, dated as of January 1, 2019, by and between ChromaDex, Inc. and W.R. Grace & Co.-Conn. (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the SEC on November 4, 2020) **
10.48	Fourth Amendment to Manufacturing and Supply Agreement, dated as of April 15, 2019, by and between ChromaDex Inc. and W.R. Grace & Co.-Conn. (incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the SEC on November 4, 2020) **
10.49	Fifth Amendment to Manufacturing and Supply Agreement, dated as of January 1, 2020, by and between ChromaDex Inc. and W.R. Grace & Co.-Conn. (incorporated by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the SEC on November 4, 2020) **
10.50	Sixth Amendment to Manufacturing and Supply Agreement, dated as of September 17, 2020, by and between ChromaDex Inc. and W.R. Grace & Co.-Conn. (incorporated by reference to Exhibit 10.7 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the SEC on November 4, 2020) **
10.51	Seventh Amendment to Manufacturing and Supply Agreement, dated as of August 2, 2021, by and between ChromaDex Inc. and W.R. Grace & Co.-Conn. (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the SEC on August 3, 2021) **
10.52	Executive Employment Agreement, dated as of July 23, 2019, by and between Megan Jordan and the Registrant (incorporated by reference to Exhibit 10.52 to the Registrant's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 12, 2021) +
10.53	Securities Purchase Agreement, dated February 20, 2021, by and between the Company and Everfund (incorporated by reference to Exhibit 99.1 to the Registrant's Current Report on Form 8-K (File No. 001-37752) filed with the SEC on February 22, 2021)
10.54	Consultant Agreement, dated March 15, 2021, by and between Mark Friedman and the Registrant (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the SEC on May 6, 2021)

Exhibit No.	Description
10.55	Consent to Business Financing Agreement, dated January 14, 2021, by and among Western Alliance Bank and ChromaDex Corporation (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the SEC on May 6, 2021)
10.56	Fifth Amendment to Lease, dated May 21, 2021, by and between 10900 WILSHIRE L.L.C and ChromaDex, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the SEC on August 3, 2021)
10.57	License Agreement, dated July 5, 2011 between ChromaDex, Inc. and Cornell University (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the SEC on August 3, 2021) **
10.58	Exclusive License Agreement, dated September 8, 2011, by and between ChromaDex, Inc. and The Regents of the University of California (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the SEC on November 3, 2021)**
10.59	Lease, dated November 24, 2021, by and between Flight Phase I Owner, LLC and ChromaDex, Inc.❖
10.60	Executive Employment Agreement, dated November 13, 2021, by and between Lisa H. Harrington and the Registrant (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed with the SEC on May 6, 2021)
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)❖
101.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File - formatted in Inline XBRL and included in Exhibit 101

❖ 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 furnish supplemental 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.

** Certain portions of this exhibit are omitted because they are both not material and are the type that the Registrant treats as private or confidential.

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.

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 to this Annual Report on Form 10-K, 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 14, 2022
/s/ KEVIN FARR Kevin Farr	Chief Financial Officer *(Principal Financial and Accounting Officer)*	March 14, 2022
/s/ FRANK L. JAKSCH JR. Frank L. Jaksch Jr.	Executive Chairman of the Board and Director	March 14, 2022
/s/ STEPHEN BLOCK Stephen Block	Director	March 14, 2022
/s/ JEFF BAXTER Jeff Baxter	Director	March 14, 2022
/s/ KURT GUSTAFSON Kurt Gustafson	Director	March 14, 2022
/s/ STEVEN RUBIN Steven Rubin	Director	March 14, 2022
/s/ WENDY YU Wendy Yu	Director	March 14, 2022
/s/ CAROLINE LEVY Caroline Levy	Director	March 14, 2022
/s/ GARY NG Gary Ng	Director	March 14, 2022

AMENDED AND RESTATD BYLAWS
OF
CHROMADEX CORPORATION

(hereinafter called the "Corporation")

ARTICLE I.
OFFICES

Section 1. Registered Office. The registered office of the Corporation in the State of Delaware shall be in the Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle, Delaware, 19801 and the name of the registered agent of the Corporation in the State of Delaware at such address is The Corporation Trust Company.

Section 2. Other Offices. The Corporation may also have offices at such other places both within and without the State of Delaware as the Board of Directors may from time to time determine.

ARTICLE II.
MEETINGS OF STOCKHOLDERS

Section 1. Place of Meetings. Meetings of the stockholders for the election of directors or for any other purpose shall be held at such time and place, either within or without the State of Delaware as shall be designated from time to time by the Board of Directors and stated in the notice of the meeting or in a duly executed waiver of notice thereof. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as provided under the Delaware General Corporation Law of the State of Delaware ("DGCL").

Section 2. Annual Meetings.

2.1 The Annual Meetings of Stockholders shall be held on such date and at such time as shall be designated from time to time by the Board of Directors and stated in the notice of the meeting, at which meetings the stockholders shall elect by a plurality vote a Board of Directors, and transact such other business as may properly be brought before the meeting. The Corporation may postpone, reschedule or cancel any annual meeting of stockholders previously scheduled by the Board of Directors. At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be: (A) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, (B) otherwise properly brought before the meeting by or at the direction of the Board of Directors or a duly authorized committee thereof, or (C) otherwise properly brought before the meeting by a stockholder. For business to be properly brought before an annual meeting by a stockholder, the stockholder must have given timely notice thereof in writing to the Secretary of the Corporation.

2.2 To be timely, a stockholder's notice must be delivered to or mailed and received by the Secretary at the principal executive offices of the Corporation not later than the close of business on the sixtieth (60th) day nor earlier than the close of business on the ninetieth (90th) day prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that no annual meeting was held in the previous year or the date of the annual meeting has been changed by more than thirty (30) days from the date contemplated at the time of the previous year's proxy statement, notice by the stockholder to be timely must be so received not earlier than the close of business on the ninetieth (90th) day prior to such annual meeting and not later than the close of business on the later of the sixtieth (60th) day prior to

such annual meeting or, in the event public announcement of the date of such annual meeting is first made by the Corporation fewer than seventy (70) days prior to the date of such annual meeting, the close of business on the tenth (10th) day following the day on which public announcement of the date of such meeting is first made by the Corporation. In no event shall an adjournment or postponement of an annual meeting for which notice has been given, or the public announcement thereof has been made, commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above.

2.3 A stockholder's notice to the Secretary shall set forth as to each matter the stockholder and the beneficial owner, if any, on whose behalf the notice is give (each a "Proponent" and collectively, the "**Proponents**"), proposes to bring before the annual meeting: (i) a brief description of the business desired to be brought before the annual meeting and the reasons for conducting such business at the annual meeting, (ii) the name and address, of each Proponent, including, if applicable, such name and address as they appear on the Corporation's books, (iii) the class and number of shares of the Corporation which are beneficially owned (within the meaning of Rule 13d-3 under the Securities Exchange Act of 1934, as amended (the "**1934 Act**") by the stockholder (provided, that for purposes of this Article II, Section 2.3(iii), such Proponent shall in all events be deemed to beneficially own all shares of any class of capital stock of the Corporation as to which such Proponent has a right to acquire beneficial ownership at any time in the future), (iv) any material interest of the Proponent in such business, (v) any other information that is required to be provided by the Proponent pursuant to Regulation 14A of the 1934 Act, in his or her capacity as a proponent to a stockholder proposal. Notwithstanding the foregoing, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholder's meeting, stockholders must provide notice as required by the regulations promulgated under the 1934 Act. Notwithstanding anything in these Bylaws to the contrary, no business shall be conducted at any annual meeting except in accordance with the procedures set forth in this Article II, Section 2. The chairperson of the annual meeting shall, if the facts warrant, determine and declare at the meeting that business was not properly brought before the meeting and in accordance with the provisions of this Article II, Section 2, and, if he or she should so determine, he or she shall so declare at the meeting that any such business not properly brought before the meeting shall not be transacted. Only persons who are confirmed in accordance with the procedures set forth in this Article II, Section 2 shall be eligible for election as directors.

2.4 Nominations of persons for election to the Board of Directors of the Corporation may be made at a meeting of stockholders by or at the direction of the Board of Directors or by any stockholder of the Corporation entitled to vote in the election of directors at the meeting who complies with the notice procedures set forth in this Article II, Section 2.4. Such nominations, other than those made by or at the direction of the Board of Directors, shall be made pursuant to timely notice in writing to the Secretary of the Corporation in accordance with the provisions of Article II, Section 2. Such stockholder's notice shall set forth (i) as to each person, if any, whom the stockholder proposes to nominate for election or re-election as a director: (A) the name, age, business address and residence address of such person, (B) the principal occupation or employment of such person, (C) the class and number of shares of the Corporation which are beneficially owned (within the meaning of Rule 13d-3 of the 1934 Act) by such person, (D) a description of all arrangements or understandings (whether oral or in writing) between the Proponent and each nominee and any other person or persons (naming such person or persons) pursuant to which the nominations are to be made by the Proponent, and (E) any other information relating to such person that is required to be disclosed in solicitations of proxies for election of directors, or is otherwise required, in each case pursuant to Regulation 14A under the 1934 Act (including without limitation such person's written consent to being named in the proxy statement, if any, as a nominee and to serving as a director if elected); and (ii) as to such stockholder giving notice, the information required to be provided pursuant to Article II, Section 2.3 above. At the request of the Board of Directors, any person nominated by a

stockholder for election as a director shall furnish to the Secretary of the Corporation that information required to be set forth in the stockholder's notice of nomination which pertains to the nominee. No person shall be eligible for election as a director of the Corporation unless nominated in accordance with the procedures set forth in this Article II, Section 2.4. The chairperson of the meeting shall, if the facts warrant, determine and declare at the meeting that a nomination was not made in accordance with the procedures prescribed by these Bylaws, and if he should so determine, he shall so declare at the meeting, and the defective nomination shall be disregarded.

2.5 A stockholder providing the written notice required by Article II, Section 2.3 and 2.4 shall update and supplement such notice in writing, if necessary, so that the information provided or required to be provided in such notice is true and correct in all material respects as of (i) the record date for the determination of stockholders entitled to notice of the meeting and (ii) the date that is five Business Days (as defined below) prior to the meeting and, in the event of any adjournment or postponement thereof, five Business Days prior to such adjourned or postponed meeting. In the case of an update and supplement pursuant to clause (i) of this Article II, Section 2.5, such update and supplement shall be received by the Secretary at the principal executive offices of the Corporation no later than five Business Days after the later of the record date for the determination of stockholders entitled to notice of the meeting or the public announcement of such record date. In the case of an update and supplement pursuant to clause (ii) of this Article II, Section 2.5, such update and supplement shall be received by the Secretary at the principal executive offices of the Corporation not later than two Business Days prior to the date for the meeting, and, in the event of any adjournment or postponement thereof, two Business Days prior to such adjourned or postponed meeting.

2.6 Notwithstanding the foregoing provisions of this Article II, Section 2, unless otherwise required by law, if the stockholder (or the qualified representative of the stockholder) does not appear at the annual meeting of stockholders of the Corporation to present a nomination or proposed business, such nomination shall be disregarded and such proposed business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Section 2, to be considered a qualified representative of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or must be authorized by a writing executed by such stockholder or any electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the meeting of stockholders.

2.7 For purposes of this Article II, Section 2: (i) "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the 1934 Act or by such other means reasonably designed to inform the public or security holders in general of such information, including, without limitation posting on the Corporation's investor relations website, (ii) "Business Day" means any day other than Saturday, Sunday or a day on which banks are closed in New York City, New York, and (iii) "close of business" means 6:00 p.m. local time at the principal executive offices of the Corporation on any calendar day, whether or not the day is a Business Day.

Section 3. Special Meetings.

3.1 Special meetings of the stockholders of the Corporation may be called, for any purpose or purposes, by (i) the Chairperson of the Board of Directors, (ii) the Chief Executive Officer, or (iii) the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board of Directors for adoption), and shall be held at such place, on such date, and at such time, as the Board of Directors shall determine. If a special meeting is called by any person or persons other than the Board of Directors, the request shall be in writing, specifying the general nature of the business proposed to be transacted, and shall be delivered personally or sent by registered mail or by telegraphic or other facsimile transmission to the Chairperson of the Board of Directors, the Chief Executive Officer, or the Secretary of the Corporation. No business may be transacted at such special meeting otherwise than specified in such notice. The Corporation may postpone, reschedule or cancel any special meeting of stockholders previously scheduled by the Board of Directors.

3.2 The Board of Directors shall determine the time and place of such special meeting, which shall be held not less than thirty-five (35) nor more than one hundred twenty (120) days after the date of the receipt of the request. Upon determination of the time and place of the meeting, the officer receiving the request shall cause notice to be given to the stockholders entitled to vote, in accordance with the provisions of Article II, Section 4 of these Bylaws. If the notice is not given within sixty (60) days after the receipt of the request, the person or persons requesting the meeting may set the time and place of the meeting and give the notice. Nothing contained in this Article II, Section 3 shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board of Directors may be held.

Section 4. Notice of Meetings.

4.1 Except as otherwise provided by law or the Certificate of Incorporation, written notice of each meeting of stockholders shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, date and hour and purpose or purposes of the meeting and the means of remote communications, if any, by which stockholders may be deemed to be present in person and vote. Notice of the time, place and purpose of any meeting of stockholders may be waived in writing, signed by the person entitled to notice thereof, or by electronic transmission, either before or after such meeting, and will be waived by any stockholder by his or her attendance thereat in person, by remote communication, if applicable, or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given.

4.2 If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the Corporation. If delivered by courier service, the notice is given on the earlier of when the notice is received or left at the stockholder's address. If sent via electronic mail, notice is given when directed to such stockholder's electronic mail address in accordance with applicable law unless (a) the stockholder has notified the Corporation in writing or by electronic transmission of any objection to receiving notice by electronic mail or (b) electronic transmission of such notice is prohibited by applicable law.

Section 5. Quorum. Except as otherwise provided by law or by the Certificate of Incorporation, the holders of a majority of the capital stock issued and outstanding and entitled to vote thereat, present in person, by remote communication, if applicable, or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business. If, however, such quorum shall not be present or represented at any meeting of the stockholders, the Chairperson of the meeting, or stockholders holding the majority of the voting power of the shares entitled to vote thereat, present in person, remote communication, if applicable, or represented by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present or represented. At such adjourned meeting at which a quorum shall be present or represented, any business may be transacted which might have been transacted at the meeting as originally noticed. If the adjournment is for more than thirty days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder entitled to vote at the meeting.

Section 6. Voting. Unless otherwise required by law, the Certificate of Incorporation or these Bylaws, any question brought before any meeting of stockholders (other than the election of directors) shall be decided by the vote of the holders of a majority of the stock represented and entitled to vote thereat. Except as otherwise required by the Certificate of Incorporation, each stockholder represented at a meeting of stockholders shall be entitled to cast one vote for each share of the capital stock entitled to vote thereat held by such stockholder. Such votes may be cast in person or by proxy but no proxy shall be voted on or after three years from its date, unless such proxy provides for a longer period. The Board of Directors, in its discretion, or the officer of the Corporation presiding at a meeting of stockholders, in his or her discretion, may require that any votes cast at such meeting shall be cast by written ballot.

Section 7. Consent of Stockholders in Lieu of Meeting.

7.1 Unless otherwise provided in the Certificate of Incorporation, any action required or permitted to be taken at any Annual or Special Meeting of Stockholders of the Corporation, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing or by electronic transmission and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of stockholders were delivered to the Corporation as provided in Section 228(c) of the DGCL.

7.2 To the extent permitted by applicable law, electronic transmission of a consent to an action to be taken and transmitted by a stockholder or proxyholder, or by a person or persons authorized to act for a stockholder or proxyholder, shall be deemed to be written and signed for the purpose of this section, provided that any such electronic transmission sets forth or is delivered with information from which the Corporation can determine (i) that the electronic transmission was transmitted by the stockholder or proxyholder or by a person or persons authorized to act for the stockholder or proxyholder and (ii) the date on which such stockholder or proxyholder or authorized person or persons transmitted such electronic transmission. A consent given by electronic transmission is delivered to the Corporation upon the earliest of: (1) when the consent enters an information processing system (e.g., electronic mail, DocuSign, Adobe Sign or other similar system), if any, designated by the Corporation for receiving consents, so long as the electronic transmission is in a form capable of being processed by that system and the Corporation is able to retrieve that electronic transmission (2) when a paper

reproduction of the consent is delivered to the Corporation's principal place of business or an officer or agent of the Corporation having custody of the book in which proceedings of meetings of stockholders are recorded; (3) when a paper reproduction of the consent is delivered to the Corporation's registered office in the State of Delaware by hand or by certified or registered mail, return receipt requested; (4) when delivered in such other manner, if any, provided by resolution of the Board of Directors; or (5) when delivered in such other manner that complies with the DGCL. A consent given by electronic mail, facsimile or other electronic transmission is delivered under the Section 7 even if no person is aware of its receipt. Receipt of an electronic acknowledgement from an information processing system establishes that a consent given by electronic transmission was received but, by itself, does not establish that the consent sent corresponds to the content received. Any copy or other reliable reproduction of a consent in writing may be substituted or used in lieu of the original writing for any and all purposes for which the original writing could be used, provided that such copy or other reproduction shall be in a complete reproduction of the entire original in writing.

Section 8. Joint Owners of Stock. If shares or other securities having voting power stand of record in the names of two or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect: (a) if only one votes, his or her act binds all; (b) if more than one votes, the act of the majority so voting binds all; (c) if more than one votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or may apply to the Delaware Court of Chancery for relief as provided in Section 217(b) of the DGCL. If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) shall be a majority or even-split in interest.

Section 9. List of Stockholders Entitled to Vote. The officer of the Corporation who has charge of the stock ledger of the Corporation shall prepare and make, at least ten days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder of the Corporation who is present.

Section 10. Stock Ledger. The stock ledger of the Corporation shall be the only evidence as to who are the stockholders entitled to examine the stock ledger, the list required by Section 9 of this Article II or the books of the Corporation, or to vote in person or by proxy at any meeting of stockholders.

ARTICLE III.
DIRECTORS

Section 1. Number and Election of Directors. The Board of Directors shall consist of not less than one nor more than 13 members, the exact number of which shall initially be fixed by the Incorporator and thereafter from time to time by the Board of Directors provided that no decrease in the number of directors shall shorten the term of a director. Except as provided in Section 3 of this Article, directors shall be elected by a plurality of the votes cast at Annual Meetings of Stockholders, and each director so elected shall hold office until the next Annual Meeting and until his or her successor is duly elected and qualified, or until his or her earlier resignation or removal. Any director may resign at any time upon notice to the Corporation. Directors need not be stockholders. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient at a special meeting of the stockholders called for that purpose in the manner provided in these Bylaws.

Section 2. Removal. Any director may be removed at any time with or without cause by an affirmative vote of the holders of a majority of the outstanding shares of the Corporation then entitled to vote. If a director is elected by a voting group of stockholders, only the stockholders of that voting group may participate in the vote to remove such director. A director may not be removed by the stockholders at a meeting unless the notice of the meeting states that the purpose, or one of the purposes, of the meeting is removal of the director. If any directors are so removed, new directors may be elected at the same meeting.

Section 3. Vacancies. Unless otherwise provided in the Certificate of Incorporation, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors, shall unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholder vote, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the fill term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under this Bylaw in the case of the death, removal or resignation of any director.

Section 4. Duties and Powers. The business of the Corporation shall be managed by or under the direction of the Board of Directors which may exercise all such powers of the Corporation and do all such lawful acts and things as are not by statute or by the Certificate of Incorporation or by these Bylaws directed or required to be exercised or done by the stockholders.

Section 5. Meetings.

5.1 Annual Meetings. The annual meeting of the Board of Directors shall be held immediately after the annual meeting of stockholders and at the place where such meeting is held. No notice of an annual meeting of the Board of Directors shall be necessary and such meeting shall be held for the purpose of electing officers and transacting such other business as may lawfully come before it.

5.2 Regular Meetings. Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any place within or without the state of Delaware which has been designated by resolution of the Board of Directors or the written consent of all directors.

5.3 Special Meetings. Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chairperson of the Board, the President or any two of the directors.

5.4 Meetings by Electronic Communications Equipment. Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

5.5 Notice of Meetings. Notice of the time and place of all special meetings of the Board of Directors shall be orally or in writing, by telephone, facsimile, telegraph, telex or electronic transmission during normal business hours, at least twenty-four (24) hours before the date and time of the meeting, or sent in writing to each director by first class mail, charges prepaid, at least three (3) days before the date of the meeting. Notice of any meeting may be waived in writing, or by electronic transmission, at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

5.6 Waiver of Notice. The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though had at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present shall sign a written waiver of notice or shall waive notice by electronic transmission. All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting.

Section 6. Quorum. Unless the Certificate of Incorporation requires a greater number and except with respect to indemnification questions arising under Article IX hereof, for which a quorum shall be one-third of the exact number of directors fixed from time to time in accordance with the Certificate of Incorporation, a quorum of the Board of Directors shall consist of a majority of the exact number of directors fixed from time to time by the Board of Directors in accordance with the Certificate of Incorporation provided, however, at any meeting whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting. At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws.

Section 7. Actions of Board. Unless otherwise provided by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all the members of the Board of Directors or committee, as the case may be, consent thereto in writing, or electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filings shall be in paper form if the minutes are maintained in paper form and in electronic form if the minutes are maintained in electronic form.

Section 8. Committees.

8.1 Executive Committee. The Board of Directors may by resolution passed by a majority of the whole Board of Directors appoint an Executive Committee to consist of one (1) or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation; but no such committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any Bylaw of the Corporation.

8.2 Other Committees. The Board of Directors may, by resolution passed by a majority of the whole Board of Directors, from time to time appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall consist of one (1) or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event shall any such committee have the powers denied to the Executive Committee in these Bylaws.

8.3 Term~~.~~. The Board of Directors, subject to the provisions of Article III Subsections 8.1 and 8.2 of this Bylaw may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his or her death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he, she or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

8.4 Meetings. Unless the Board of Directors shall otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Article III, Section 8 shall be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place which has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon written notice or notice by electronic transmission to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of written notice or notice by electronic transmission to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. A majority of the authorized number of members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present shall be the act of such committee.

Section 9. Compensation. The directors may be paid their expenses, if any, of attendance at each meeting of the Board of Directors and may be paid a fixed sum for attendance at each meeting of the Board of Directors or a stated salary as director. No such payment shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may be allowed like compensation for attending committee meetings.

Section 10. Interested Directors. No contract or transaction between the Corporation and one or more of its directors or officers, or between the Corporation and any other corporation, partnership, association, or other organization in which one or more of its directors or officers are directors or officers, or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the Board of Directors or committee thereof which authorizes the contract or transaction, or solely because his, her or their votes are counted for such purpose if (i) the material facts as to his, her or their relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the Board of Directors or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; or (ii) the material facts as to his, her or their relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or (iii) the contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified, by the Board of Directors, a committee thereof or the stockholders. Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

ARTICLE IV.
OFFICERS

Section 1. General. The officers of the Corporation shall include, if and when designated by the Board of Directors, the Chairperson of the Board of Directors, the Chief Executive Officer, the President, one or more Vice Presidents, the Secretary, the Chief Financial Officer, the Treasurer, and the Controller, all of whom shall be elected at the annual organizational meeting of the Board of Directors. The Board of Directors may also appoint one or more Assistant Secretaries, Assistant Treasurers, Assistant Controllers and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the Corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the Corporation shall be fixed by or in the manner designated by the Board of Directors or by a Committee thereof to which the Board of Directors has delegated such responsibility.

Section 2. Election. The Board of Directors at its first meeting held after each Annual Meeting of Stockholders shall elect the officers of the Corporation who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board of Directors; and all officers of the Corporation shall hold office until their successors are chosen and qualified, or until their earlier resignation or removal. Any officer elected by the Board of Directors may be removed at any time by the affirmative vote of a majority of the Board of Directors. Any vacancy occurring in any office of the Corporation shall be filled by the Board of Directors. The salaries of all officers of the Corporation shall be fixed by the Board of Directors or by a Committee thereof to which the Board of Directors has delegated such responsibility.

Section 3. Resignation and Removal. Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by the Board of Directors, at any regular or special meeting thereof, or, except in case of an officer chosen by the Board of Directors, by any officer upon whom such power of removal may be conferred by the Board of Directors.

Any officer may resign at any time by giving written notice to the Corporation. Any such resignation shall take effect at the date of the receipt of such notice or at any later time specified therein; and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective. Any such resignation is without prejudice to the rights, if any, of the Corporation under any contract to which the officer is a party.

Section 4. Voting Securities Owned by the Corporation. Powers of attorney, proxies, waivers of notice of meeting, consents and other instruments relating to securities owned by the Corporation may be executed in the name of and on behalf of the Corporation by the President or any Vice President and any such officer may, in the name of and on behalf of the Corporation, take all such action as any such officer may deem advisable to vote in person or by proxy at any meeting of security holders of any corporation in which the Corporation may own securities and at any such meeting shall possess and may exercise any and all rights and power incident to the ownership of such securities and which, as the owner thereof, the Corporation might have exercised and possessed if present. The Board of Directors may, by resolution, from time to time confer like powers upon any other person or persons.

Section 5. Chairperson of the Board of Directors. The Chairperson of the Board of Directors, when present, shall preside at all meetings of the stockholders and the Board of Directors. The Chairperson of the Board of Directors shall perform other duties commonly incident to his or her office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. If there is no President, then the Chairperson of the Board of Directors shall also serve as the Chief Executive Officer of the Corporation and shall have the powers and duties prescribed in Section 7 of this Article IV.

Section 6. President. The President shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairperson of the Board of Directors has been appointed and is present. Unless some other officer has been elected Chief Executive Officer of the Corporation, the President shall be the Chief Executive Officer of the Corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the Corporation. The President shall perform other duties commonly incident to his or her office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time.

Section 7. Chief Executive Officer. The Chief Executive Officer of the Corporation shall have overall executive responsibility and authority for management of the business, affairs, and operations of the Corporation (subject to the authority of the Board of Directors), and, in general, shall perform all duties incident to the office of a chief executive officer of a Corporation, including those duties customarily performed by persons holding such office, and shall perform such other duties as, from time to time, may be assigned to him or her by the Board of Directors.

Section 8. Chief Financial Officer. The Chief Financial Officer shall keep or cause to be kept the books of account of the Corporation in a thorough and proper manner and shall render statements of the financial affairs of the Corporation in such form and as often as required by the Board of Directors or the President. The Chief Financial Officer, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the Corporation. The Chief Financial Officer shall perform other duties commonly incident to his or

her office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. The President may direct the Treasurer or any Assistant Treasurer, or the Controller or any Assistant Controller to assume and perform the duties of the Chief Financial Officer in the absence or disability of the Chief Financial Officer, and each Treasurer and Assistant Treasurer and each Controller and Assistant Controller shall perform other duties commonly incident to his or her office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

Section 9. Vice Presidents. The Vice Presidents shall perform such duties commonly incident to their office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

Section 10. Secretary. The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the Corporation. The Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary shall perform all other duties given him in these Bylaws and other duties commonly incident to his or her office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. The President may direct any Assistant Secretary to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform other duties commonly incident to his or her office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

Section 11. Treasurer. The Treasurer shall have the custody of the corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the Corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the Corporation in such depositories as may be designated by the Board of Directors. The Treasurer shall disburse the funds of the Corporation as may be ordered by the Board of Directors, taking proper vouchers for such disbursements, and shall render to the President and the Board of Directors, at its regular meetings, or when the Board of Directors so requires, an account of all his or her transactions as Treasurer and of the financial condition of the Corporation. If required by the Board of Directors, the Treasurer shall give the Corporation a bond in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors for the faithful performance of the duties of his or her office and for the restoration to the Corporation, in case of his or her death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in his or her possession or under his or her control belonging to the Corporation.

Section 12. Assistant Secretaries. Except as may be otherwise provided in these Bylaws, Assistant Secretaries, if there be any, shall perform such duties and have such powers as from time to time may be assigned to them by the Board of Directors, the President, any Vice President, if there be one, or the Secretary, and in the absence of the Secretary or in the event of his or her disability or refusal to act, shall perform the duties of the Secretary, and when so acting, shall have all the powers of and be subject to all the restrictions upon the Secretary.

Section 13. Assistant Treasurers. Assistant Treasurers, if there be any, shall perform such duties and have such powers as from time to time may be assigned to them by the Board of Directors, the President, any Vice President, if there be one, or the Treasurer, and in the absence of the Treasurer or in the event of his or her disability or refusal to act, shall perform the duties of the Treasurer, and when so acting, shall have all the powers of and be subject to all the restrictions upon the Treasurer. If required by the Board of Directors, an Assistant Treasurer shall

give the Corporation a bond in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors for the faithful performance of the duties of his or her office and for the restoration to the Corporation, in case of his or her death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in his or her possession or under his or her control belonging to the Corporation.

Section 14. Other Officers. Such other officers as the Board of Directors may choose shall perform such duties and have such powers as from time to time may be assigned to them by the Board of Directors. The Board of Directors may delegate to any other officer of the Corporation the power to choose such other officers and to prescribe their respective duties and powers.

ARTICLE V.
EXECUTION OF CORPORATE INSTRUMENTS AND VOTING OF SECURITIES OWNED BY THE CORPORATION

Section 1. Execution of Corporate Instrument. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the Corporation any corporate instrument or document, or to sign on behalf of the Corporation the corporate name without limitation, or to enter into contracts on behalf of the Corporation, except where otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the Corporation.

Unless otherwise specifically determined by the Board of Directors or otherwise required by law, promissory notes, deeds of trust, mortgages and other evidences of indebtedness of the Corporation, and other corporate instruments or documents requiring the corporate seal, and certificates of shares of stock owned by the Corporation, shall be executed, signed or endorsed by the Chairperson of the Board of Directors, or the President or any Vice President, and by the Secretary or Treasurer or any Assistant Secretary or Assistant Treasurer. All other instruments and documents requiring the corporate signature, but not requiring the corporate seal, may be executed as aforesaid or in such other manner as may be directed by the Board of Directors.

All checks and drafts drawn on banks or other depositaries on funds to the credit of the Corporation or in special accounts of the Corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do.

Unless otherwise specifically determined by the Board of Directors or otherwise required by applicable law, the execution, signing or endorsement of any corporate instrument or document by or on behalf of the Corporation may be effected manually, by facsimile or (to the extent permitted by applicable law and subject to such policies and procedures as the corporation may have in effect from time to time) by electronic signature.

Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

Section 2. Voting of Securities Owned by the Corporation. All stock and other securities of other Corporations owned or held by the Corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chairperson of the Board of Directors, the Chief Executive Officer or the President.

Section 3. Execution of Other Securities. All bonds, debentures and other corporate securities of the Corporation, other than stock certificates, may be signed by the Chairperson of the Board of Directors, the President, the Chief Executive Officer, the Chief Financial Officer, or such other person as may be authorized by the Board of Directors; *provided, however,* that where any such bond, debenture or other corporate security shall be authenticated by the manual signature, or where permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, shall be signed by the Treasurer or an Assistant Treasurer of the Corporation or such other person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who shall have signed or attested any bond, debenture or other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been used thereon had not ceased to be such officer of the Corporation.

ARTICLE VI.
STOCK

Section 1. Form of Certificates. The shares of the Corporation shall be represented by certificates, or shall be uncertificated if so provided by resolution or resolutions of the Board of Directors. Certificates for the shares of stock, if any, shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock in the Corporation shall be entitled to have a certificate signed, in the name of the Corporation (i) by the Chairperson of the Board of Directors, the President or a Vice President and (ii) by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the Corporation, certifying the number of shares owned by him or her in the Corporation.

Section 2. Signatures. Where a certificate is countersigned by (i) a transfer agent other than the Corporation or its employee, or (ii) a registrar other than the Corporation or its employee, any other signature on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue.

Section 3. Lost Certificates. The Board of Directors may direct a new certificate to be issued in place of any certificate theretofore issued by the Corporation alleged to have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen or destroyed. When authorizing such issue of a new certificate, the Board of Directors may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost, stolen or destroyed certificate, or his or her legal representative, to advertise the same in such manner as the Board of Directors shall require and/or to give the Corporation a bond in such sum as it may direct as indemnity against any claim that may be made against the Corporation with respect to the certificate alleged to have been lost, stolen or destroyed.

Section 4. **Transfers**. Stock of the Corporation shall be transferable in the manner prescribed by law and in these Bylaws. Transfers of stock shall be made on the books of the Corporation only by the person named in the certificate or by his or her attorney lawfully constituted in writing and upon the surrender of the certificate therefor, which shall be canceled before a new certificate shall be issued. The Corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the Corporation to restrict the transfer of shares of stock of the Corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

Section 5. **Record Date**.

5.1 In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which shall not be more than sixty days nor less than ten days before the date of such meeting, nor more than sixty days prior to any other action. If the Board of Directors so fixes a record date for determining the stockholders entitled to notice of any meeting of stockholders, such date shall also be the record date for determining the stockholders entitled to vote at such meeting, unless the Board of Directors determines, at the time it fixes the record date for determining the stockholders entitled to notice of such meeting, that a later date on or before the date of the meeting shall be the record date for determining the stockholders entitled to vote at such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day immediately preceding the day on which notice is given, or if notice is waived, at the close of business on the day immediately preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

5.2 In order that the Corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 6. **Beneficial Owners**. The Corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of stock to receive dividends, and to vote as such owner, and to hold liable for calls and assessments a person registered on its books as the owner of shares, and shall not be bound to recognize any equitable or other claim to or interest in such stock or stocks on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by law.

Section 7. Notwithstanding any other provision in these Bylaws, the Corporation may adopt a system of issuance, recordation and transfer of its shares by electronic or other means not involving any issuance of certificates, including provisions for notice to purchasers in substitution for any required statements on certificates, and as may be required by applicable corporate securities laws, which system has been approved by the United States

Securities and Exchange Commission. Any system so adopted shall not become effective as to issued and outstanding certificated securities until the certificates therefore have been surrendered to the Corporation.

ARTICLE VII.
NOTICES

Section 1. Notices.

1.1 Whenever, under any provisions of these Bylaws, notice is required to be given to any stockholder, it shall be given in writing, timely and duly deposited in the United States mail, postage prepaid, and addressed to his or her last known post office address as shown by the stock record of the Corporation or its transfer agent. Any notice required to be given to any director may be given by such method, or by facsimile, telex, telegram, or other electronic transmission, except that such notice other than one which is delivered personally shall be sent to such address as such director shall have filed in writing with the Secretary, or, in the absence of such filing, to the last known post office address of such director.

1.2 An affidavit of mailing, executed by a duly authorized and competent employee of the Corporation or its transfer agent appointed with respect to the class of stock affected, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, shall in the absence of fraud, be prima facie evidence of the facts therein contained. All notices given by mail, as above provided, shall be deemed to have been given as at the time of mailing, and all notices given by facsimile, telex, telegram, or other electronic transmission shall be deemed to have been given as of the sending time recorded at time of transmission. In addition, without limiting the manner by which notice otherwise may be given effectively to stockholders, any notice to stockholders may be given by electronic transmission in the manner provided in Section 232 of the DGCL.

1.3 It shall not be necessary that the same method of giving notice be employed in respect of all directors, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others. The period or limitation of time within which any stockholder may exercise any option or right, or enjoy any privilege or benefit, or be required to act, or within which any director may exercise any power or right, or enjoy any privilege, pursuant to any notice sent him in the manner above provided, shall not be affected or extended in any manner by the failure of such stockholder or such director to receive such notice.

1.4 Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or Bylaws of the Corporation, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the Corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

1.5 Whenever notice is required to be given, under any provision of law or the Certificate of Incorporation or Bylaws of the Corporation, to any stockholder to whom (i) notice of two consecutive annual meetings, and all notices of meetings or of the taking of action by written consent without a meeting to such person during the period between such two

consecutive annual meetings, or (ii) all, and at least two, payments (if sent by first class mail) of dividends or interest on securities during a twelve-month period, have been, mailed addressed to such person at his or her address as shown on the records of the Corporation and have been returned undeliverable, the giving of such notice to such person shall not be required. Any action or meeting which shall be taken or held without notice to such person shall have the same force and effect as if such notice had been duly given. If any such person shall deliver to the Corporation a written notice setting forth his or her then current address, the requirement that notice be given to such person shall be reinstated. In the event that the action taken by the Corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate need not state that notice was not given to persons to whom notice was not required to be given pursuant to this paragraph.

1.6 Except as otherwise prohibited under the DGCL, any notice given under the provisions of the DGCL, the Certificate of Incorporation or these Bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Such consent shall have been deemed to have been given if such stockholder fails to object in writing to the Corporation within 60 days of having been given notice by the Corporation of its intention to send the single notice. Any consent shall be revocable by the stockholder by written notice to the Corporation.

Section 2. Waivers of Notice. Whenever any notice is required by law, the Certificate of Incorporation or these Bylaws, to be given to any director, member of a committee or stockholder, a waiver thereof in writing, signed, by the person or persons entitled to said notice, or waiver by electronic transmission by such person whether before or after the time stated therein, shall be deemed equivalent thereto.

ARTICLE VIII.
GENERAL PROVISIONS

Section 1. Dividends. Dividends upon the capital stock of the Corporation, subject to the provisions of the Certificate of Incorporation, if any, may be declared by the Board of Directors at any regular or special meeting, and may be paid in cash, in property, or in shares of the capital stock. Before payment of any dividend, there may be set aside out of any funds of the Corporation available for dividends such sum or sums as the Board of Directors from time to time, in its absolute discretion, deems proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the Corporation, or for any proper purpose, and the Board of Directors may modify or abolish any such reserve.

Section 2. Disbursements. All checks or demands for money and notes of the Corporation shall be signed by such officer or officers or such other person or persons as the Board of Directors may from time to time designate.

Section 3. Fiscal Year. The fiscal year of the Corporation shall be fixed by resolution of the Board of Directors.

Section 4. Corporate Seal. The corporate seal shall have inscribed thereon the name of the Corporation, the year of its organization and the word “Delaware”. The seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

ARTICLE IX.
INDEMNIFICATION

Section 1. Directors and Officers. The Corporation shall indemnify its directors and officers to the fullest extent not prohibited by the DGCL; provided, however, that the Corporation may modify the extent of such indemnification by individual contracts with its directors and officers; and, provided, further, that the Corporation shall not be required to indemnify any director or officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the Corporation, (iii) such indemnification is provided by the Corporation, in its sole discretion, pursuant to the powers vested in the Corporation under the DGCL or (iv) such indemnification is required to be made under Section 4 of this Article.

Section 2. Employees and Other Agents. The Corporation shall have power to indemnify its employees and other agents' as set forth in the DGCL.

Section 3. Expense. The Corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she is or was a director or officer, of the Corporation, or is or was serving at the request of the Corporation as a director or executive officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or officer in connection with such proceeding upon receipt of an undertaking by or on behalf of such person to repay said amounts if it should be determined ultimately that such person is not entitled to be indemnified under this Bylaw or otherwise.

Notwithstanding the foregoing, unless otherwise determined pursuant to Section 5 of this Article, no advance shall be made by the Corporation to an officer of the Corporation (except by reason of the fact that such officer is or was a director of the Corporation in which event this paragraph shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by the Board of Directors by a majority vote of a quorum consisting of directors who were not parties to the proceeding, or (ii) if such quorum is not obtainable, or, even if obtainable, a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the Corporation.

Section 4. Enforcement. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and officers under this Bylaw shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the Corporation and the director or officer. Any right to indemnification or advances granted by this Bylaw to a director or officer shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within ninety (90) days of request therefore. The claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting his claim. In connection with any claim for indemnification, the Corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standard of conduct that make it permissible under the DGCL for the Corporation to indemnify the claimant for the amount claimed. In connection with any claim by an officer of the Corporation (except in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that

such officer is or was a director of the Corporation) for advances, the Corporation shall be entitled to raise a defense as to any such action clear and convincing evidence that such person acted, in bad faith or in a manner that such person did not believe to be in or not opposed in the best interests of the Corporation, or with respect to any criminal action or proceeding that such person acted without reasonable cause to believe that his conduct was lawful. Neither the failure of the Corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he or she has met the applicable standard of conduct set forth in the DGCL, nor an actual determination by the Corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct. In any suit brought by a director or officer to enforce a right to indemnification or to an advancement of expenses hereunder, the burden of proving that the director or officer is not entitled to be indemnified, or to such advancement of expenses, under this Article IX or otherwise shall be on the Corporation.

Section 5. Non-Exclusivity of Rights. The rights conferred on any person by this Bylaw shall not be exclusive of any other right which such person may have or hereafter acquire under any statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding office. The Corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the DGCL.

Section 6. Survival of Rights. The rights conferred on any person by this Bylaw shall continue as to a person who has ceased to be a director, officer, employee or other agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

Section 7. Insurance. To the fullest extent permitted by the DGCL, the Corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this Bylaw.

Section 8. Amendments. Any repeal or modification of this Bylaw shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the Corporation.

Section 9. Saving Clause. If this Bylaw or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify each director and officer to the fullest extent not prohibited by any applicable portion of this Bylaw that shall not have been invalidated, or by any other applicable law.

Section 10. Certain Definitions. For the purposes of this Bylaw, the following definitions shall apply:

10.1 The term "proceeding" shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

10.2 The term "expenses" shall be broadly construed and shall include, without limitation, court costs, attorneys' fees, witness fees, fines, amounts paid in settlement or

judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

10.3 The term the "corporation" shall have the meaning set forth in Section 145(h) of the DGCL.

10.4 References to a "director," "executive officer," "officer," "employee," or "agent" of the Corporation shall include, without limitation, situations where such person is serving at the request of the Corporation as, respectively, a director, executive officer, officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

10.5 References to "other enterprises" shall have the meaning set forth in Section 145(i) of the DGCL.

ARTICLE X.
AMENDMENTS

Section 1. Amendment. These Bylaws may be altered, amended or repealed, in whole or in part, or new Bylaws may be adopted by the stockholders or by the Board of Directors, provided, however, that notice of such alteration, amendment, repeal or adoption of new Bylaws be contained in the notice of such meeting of stockholders or Board of Directors as the case may be. All such amendments must be approved by either the holders of a majority of the outstanding capital stock entitled to vote thereon or by a majority of the entire Board of Directors then in office.

Section 2. Entire Board of Directors. As used in this Article X and in these Bylaws generally, the term "entire Board of Directors" means the total number of directors which the Corporation would have if there were no vacancies.

ARTICLE XI.
FORUM FOR ADJUDICATION OF DISPUTES

Section 1. Forum for Adjudication of Disputes. Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (a) any derivative action or proceeding brought on behalf of the Corporation, (b) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (c) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, the certificate of incorporation or the bylaws of the Corporation, or (d) any action asserting a claim governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the corporation shall be deemed to have notice of and consented to the provisions of this Article XI, Section 1.

SUPPLY AGREEMENT

THIS SUPPLY AGREEMENT (the "**Agreement**") is made and entered into as of the 19th of December, 2018 (the "**Effective Date**") by and between NESTEC Ltd., a Swiss private limited company, with principal offices located at Avenue Nestle 55, 1800 Vevey, Switzerland ("**Buyer**" or "**NHSc**") and ChromaDex Inc., a California corporation with principal offices located at 10005 Muirlands, Blvd, Suite G, Irvine, CA 92618, USA ("**Seller**" or "**ChromaDex**"). Buyer and Seller are individually referred to herein as a "**Party**" and collectively as the "**Parties**."

R E C I T A L S

WHEREAS, Seller is the owner or exclusive licensee of certain intellectual property rights related to the composition and use of the compound Nicotinamide Riboside ("**NR**") and NR Product (defined below) that is currently sold under the ChromaDex Trademarks (defined below); and

WHEREAS, NR is supplied by Seller to third parties for the commercialization of NR Product under the ChromaDex Trademarks (or other tradenames) as dietary supplements on a global basis; and

WHEREAS, NR and NR Product is marketed, commercialized and sold by Seller to consumers in its pure form and in combination with other active ingredients on a global basis under the ChromaDex Trademarks (or other tradenames) subject to the terms and conditions of this Agreement; and

WHEREAS, Buyer now desires to purchase the NR Product to develop, market, promote, sell, and distribute the Approved Products (defined below) subject to the terms and conditions hereinafter described.

NOW, THEREFORE, in consideration of the mutual promises and agreements contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows.

1. Definitions.

The following terms have the meanings specified below:

"**Active Nutrition**" means product offerings that are formulated and marketed to consumers of all ages for the purpose of living a healthy lifestyle with integrated physical activity. Active Nutrition does not include Sports Nutrition.

"**Affiliate**" shall mean, with respect to a Party, any person or entity that controls, is controlled by, or is under common control with such Party. An entity or person shall be deemed to be in control of another entity ("**Controlled Entity**") if the former owns directly or indirectly at least fifty percent (50%) of the outstanding voting equity of the Controlled Entity (or some other majority equity or ownership interest exits, in the event that such Controlled Entity is other than a corporation).

"**Allowable Deductions**" shall mean,

(a) sales returns and allowances actually paid, granted or accrued, including trade, quantity and cash discounts and any other adjustments, including those granted on account of price adjustments or billing errors, rejected goods, damaged or defective goods, recalls, returns;

(b) rebates, chargeback rebates, compulsory rebates, reimbursements or similar payments granted or given to wholesalers or other distributors, buying groups, health care insurance carriers or other institutions and compulsory payments to governmental authorities and any other governmental charges imposed upon the sale of such Approved Product to third parties;

(c) adjustments arising from consumer discount programs or other similar programs;

(d) customs or excise duties, sales tax, consumption tax, value added tax, and other taxes (except income taxes); and

(e) charges for packing, freight, shipping and insurance (to the extent that Buyer or its Affiliates bear such cost).

Allowable Deductions shall be calculated by Buyer consistent with its ordinary practice and in accordance with International Financial Reporting Standards, and Buyer shall not calculate Allowable Deductions in any manner that has the primary purpose of avoiding or reducing the Sales Fees payable hereunder.

"**Approved Products**" shall mean any Medical Nutrition (as defined herein) or Functional Food and Beverages (as defined herein) product which contains a minimum of [***]mg of the NR Product per serving unless Buyer and Seller agree otherwise in advance in writing. Buyer does not require any consent from Seller to launch new products in Medical Nutrition or Functional Food and Beverages provided that they comply with the requirements set forth in this Agreement. For the sake of clarity, the Approved Products will include NR Product in combination with proteins or other active ingredients as Functional Food and Beverages or as Medical Nutrition products of NHSc.

"**Approved Product Category(ies)**" shall mean Medical Nutrition and/or Functional Food and Beverages.

"**Buyer**" shall include NESTEC Ltd. and its U.S. Affiliate, Nestlé HealthCare Nutrition, Inc. and their respective successors and assigns; provided, however, that the Parties acknowledge and agree that Buyer or any of its Affiliates may purchase the NR Product and market, sell and distribute the Approved Products pursuant to the terms and conditions of this Agreement.

"**Buyer's Technical Feasibility**" shall mean when Buyer, in its reasonable judgment, determines that the NR Product would be stable in a ready to drink format.

"**Change of Control**" shall mean any person or entities having acquired, in any single transaction or series of related transactions, whether by way of merger, consolidation, purchase, or in any other manner, (i) securities of Seller or its Controlling Affiliate(s) representing [***] percent ([***]%) or more of either the combined voting power or ownership interest thereof, (ii) [***] percent ([***]%) or more of the profit/loss participation in Seller or its Controlling Affiliate(s), or (iii) Control in Seller or its Controlling Affiliate(s).

"**ChromaDex Brand Usage Guidelines**" are attached hereto as Exhibit A – ChromaDex Brand Usage Guidelines (Exhibit A is hereby incorporated herein in full by this reference) and, subject to the terms and conditions in Section 11, sets forth the rules and guidelines pertaining to the proper use of the ChromaDex Trademarks which rules and guidelines may be amended by ChromaDex, at any time, in ChromaDex's sole discretion. If the ChromaDex Brand Usage Guidelines are supplemented or amended, a supplemented or amended version shall be promptly provided to Buyer, and Buyer has the obligation to ensure that Buyer is in compliance with ChromaDex's current ChromaDex Brand Usage Guidelines after a reasonable transition period.

"**ChromaDex Trademarks**" shall mean the trademarks and logos owned by ChromaDex incorporating the name, mark, and/or brand of the NR Product as shown in the ChromaDex Brand Usage Guidelines.

"**Control**" shall mean (including the term "Controlling") possession, directly or indirectly, through one (1) or more intermediaries, of the power to direct or cause the direction of management and policies of Seller, whether through ownership of voting securities or otherwise.

"**Dollerup**" shall mean the following study: Dollerup, O.L., et al., A randomized placebo-controlled clinical trial of nicotinamide riboside in obese men: safety, insulin-sensitivity, and lipid-mobilizing effects. Am J Clin Nutr, 2018.

"**Field**" shall mean human use.

"**Functional Food and Beverages**" shall mean a Protein Based (defined below) functional food or beverage (meaning consumer healthcare sold under "Nutrition Facts" labeling regulations in the US or similar labeling or definitional regulations globally; i.e. not sold under dietary supplement regulations) product containing NR Product in ready to drink and loose powder format currently sold under the NHSc Brands (defined below), which may include Active Nutrition products. Functional Food and Beverages do not include Sports Nutrition. "**NHSc Brands**" shall mean the existing brands of Buyer or its affiliates set forth in Exhibit B – NHSc Brands (Exhibit B is hereby incorporated herein in full by this reference) as well as (i) any other existing brands acquired by Buyer during the Term within the Approved Product Categories and (ii) any new brands created by Buyer within the Approved Product Categories, subject to the approval of Seller, such approval not to be unreasonably withheld or delayed.

"**Functional Food and Beverages Extensions**" shall mean a Protein Based product containing NR Product sold under the NHSc Brands that is in a format other than ready to drink or loose powder.

"**Good Manufacturing Practices**" shall mean current and any future good manufacturing practices and quality system regulations set forth by the United States Food and Drug Administration ("**USFDA**"), and if the Approved Product is manufactured or sold outside of the Unites States, the current and any future good manufacturing practices and quality system regulations set forth by the USFDA or higher standards if and as applicable in the country in which the Approved Product is manufactured or sold.

"**Gross Sales Price**" shall mean all invoiced sales of Approved Products without offset, deduction, or allowances.

"**Licensed Materials**" shall mean any advertising, marketing, promotional, and/or merchandising materials and artwork prepared by ChromaDex and provided to Buyer. There is no obligation for ChromaDex to create or provide Licensed Materials. Licensed Materials may or may not display ChromaDex Trademarks and may or may not be provided to Buyer by ChromaDex, in ChromaDex's sole discretion.

"**Launch**" shall mean first bona fide commercial sale of an Approved Product in a country in the respective Sub-Territory.

"**Martens**" shall mean the following study: Martens, C.R., Denman, B.A., Mazzo, M.r., Armstrong, M.L., Reisdorph, N., McQueen, M.B., Chonchol, M.B., Seals, D.R., *Chronic nicotinamide riboside supplementation is well-tolerated and effectively elevates NAD+ in healthy middle-aged and older adults*. 2018, University of Colorado Boulder.

"**Medical Nutrition**" shall mean (a) a specialized nutrition product that serves as a nutritional solution for the dietary management of a specific health condition to be used under medical supervision; (b) a "medical food," as defined in Section 5(b) of the Orphan Drug Act (21 U.S.C. 360ee(b)(3)) and 21 CFR 101.9(j)(8); or (c) a "dietary food for special medical purposes" as defined in Directive 1999/21/EC of the European Parliament and of the Council; or (d) any food product substantially equivalent to the preceding clause (a), (b) or (c) under any applicable laws and regulations in any other jurisdiction to be used under medical supervision.

"**Net Sales**" shall mean the Gross Sales Price invoiced by Buyer or its Affiliates to third parties, less only (a) any taxes included in the Gross Sales Price, if any, and (b) Allowable Deductions.

"**NR Product**" means NR and any future revisions in salts, formulations, or other forms.

"**Protein Based**" means any functional food or beverages (not a supplement) that lists protein as a primary nutrient in the ingredient list under labeling regulations in the US or similar labeling or definitional regulations globally and contains at least 5 grams of protein per serving for ready to drink products and 2 grams of protein per serving in sachets.

"**Reporting Period**" shall begin on the first day of each calendar quarter and end on the last day of such calendar quarter.

"**Seller**" shall include ChromaDex, Inc., its Affiliates and their respective successors and assigns.

"**Seller's Technical Feasibility**" shall mean when Seller, in its reasonable judgment, determines that the NR Product would be stable in a ready to drink format. Buyer's Technical Feasibility and Seller's Technical Feasibility may sometimes be referred to collectively as "**Technical Feasibility**".

t set forth on Exhibit C – Product Specifications (Exhibit C is hereby incorporated herein in full by this reference). The Specifications may be amended from time to time by ChromaDex upon [***] prior written notice thereof to Buyer. Any material modifications to the Specifications that may impact commercialization, manufacturing, and indications for use or taste of an Approved Product shall require the advance written approval of Buyer, such approval not to be unreasonably withheld or delayed.

"**Sports Nutrition**" means product offerings formulated for and marketed to athletes to support sports and athletic training to optimize sports and athletic performance.

Sub-Territories" shall mean each of (i) North America; (ii) Europe; (iii) Latin America (including Central America and South America; and (iv) Asia Pacific Exceptions (as defined below)).

"**Sub-Territory Reversion**" is defined in Paragraph 3.6.2.

"**Supplier Code of Conduct**" shall mean Buyer's Responsible Sourcing Standard as published on https://www.nestle.com/aboutus/suppliers (or any successor URL of which Seller is advised in advance in writing). Seller shall be advised of and agree to any revisions to the version at such URL as of the Effective Date hereof.

"**Term**" shall mean the term of this Agreement, which shall commence on the Effective Date and shall remain in effect until the expiration or abandonment of all applicable issued patents and applicable filed patent applications for the NR Product, unless earlier terminated in accordance with the provisions of this Agreement.

"**Territory**" shall mean the combination of North America, Europe, Latin America (including Central America and South America), but excluding Asia Pacific except for the following territories that shall be included in the Territory: Australia, New Zealand, and Japan only (collectively the "**Asia Pacific Exceptions**"). The Territory shall be subject to the Sub-Territory Reversion pursuant to the terms hereof.

"**Washington Heart Study**" shall mean ClinicalTrials.gov Identifier: NCT03423342, which can be found at https://www.clinicaltrials.gov/ct2/show/NCT03423342?term=nicotinamide+riboside&rank=3.

2. Conditions Precedent to Grant of Rights and Execution of This Agreement.

2.1 Execution of this Agreement is conditioned upon:

(i) Completion of due diligence satisfactory to both ChromaDex and Buyer; and

(ii) Receipt of the internal approvals reasonably required by both ChromaDex and Buyer.

2.2 By execution of this Agreement by both Parties, both Seller and Buyer are representing that the foregoing conditions have been satisfied.

3. Supply and Exclusivity.

3.1 Supply. Throughout the Term, Buyer shall exclusively purchase from Seller and Seller shall supply to Buyer the NR Product in accordance with the specific terms and conditions contained herein. In the event Seller fails to timely fulfill a Purchase Order (defined below), Buyer will provide Seller written notice thereof and Seller shall have [***] to cure by fulfilling the Purchase Order. If Seller repeatedly (at least [***] times in any rolling [***] period) and materially fails to timely fulfill Purchase Orders, Buyer shall not be obligated to purchase NR Product solely from Seller.

3.2 Approved Products. Seller hereby agrees that Buyer shall be entitled to develop, manufacture, sell, promote, import, and distribute the Approved Products using NR Product in the Field in the Territory during the Term.

3.3 Exclusivity. Provided that Seller has not terminated exclusivity as permitted by this Agreement (including Seller's rights to Reversion), Seller agrees that it shall not sell NR Product to any third party for use in Medical Nutrition in the Field in the Territory during the Term. In addition, Seller shall not sell Medical Nutrition products containing NR Product in the Field in the Territory during the Term.

3.4 Co-Exclusivity. Provided that Seller has not terminated exclusivity as permitted by this Agreement (including Seller's rights to Reversion), Seller agrees that it shall not sell NR Product to any third party for use in the manufacture of any third party product sold under a third party brand in Functional Food and Beverages in the Field in the Territory during the Term ("**Buyer's Co-Exclusivity**").

3.4.1 In order to maintain Buyer's Co-Exclusivity:

3.4.1.1 Buyer and Seller shall meet at the beginning of each quarter during calendar year 2019 to communicate regarding Buyer's progress towards commercialization.

3.4.1.2 Buyer shall conduct Technical Feasibility product testing (including sensory panel testing) by [***] on a Functional Food and Beverages Approved Product (the "**Consumer Product Test Target**"). If Buyer fails to achieve Buyer's Technical Feasibility by the Consumer Product Test Target, Buyer shall notify Seller in writing no later than [***]. If Seller provides Buyer written notice no later than [***] that Seller has achieved Seller's Technical Feasibility after Buyer notifies Seller that Buyer failed to achieve Buyer's Technical Feasibility, then Seller shall have the option to terminate Buyer's Co-Exclusivity upon [***] written notice ("**Seller's Feasibility Failure Option**").

3.4.1.3 Buyer must Launch the Approved Products in accordance with Section 3.6. If Buyer fails to comply with the Launch requirements and deadlines, Seller shall have the option to exercise any of its rights to reversion and terminate Buyer's Co-Exclusivity in accordance with the terms of this Agreement.

3.4.1.4 Buyer's Co-Exclusivity shall cease without notice when Buyer is no longer required to remit Sales Fees pursuant to Section 4.3.3.2, at which time (i) there shall be no limitation on Seller's ability to sell the NR Product and (ii) Buyer will no longer be subject to the Annual Minimum Royalty requirements set forth in Section 4.3.3.4 of this Agreement.

3.4.2 Buyer's Co-Exclusivity does not prohibit Seller from selling products containing NR Product to consumers at any time and Buyer acknowledges that Seller will maintain all rights to sell products containing NR Product to consumers in Functional Food and Beverages without limitation.

3.4.3 Buyer's Co-Exclusivity shall not include Functional Food and Beverages Extensions. As long as Buyer has the right to purchase NR Product for use in Buyer's development, manufacture, sale, promotion, importation, and distribution of Functional Food and Beverages in a Sub-Territory, Buyer shall have the right (although not co-exclusive) to purchase NR Product for use in Buyer's development, manufacture, sale, promotion, importation, and distribution of Functional Food and Beverages Extensions in the same Sub-Territory. The Parties hereby acknowledge that Seller is not prohibited from developing, manufacturing, or selling Functional Food and Beverages Extensions equivalent products containing NR Product.

3.5 Prior Existing Obligations. Notwithstanding Section 3.3 (Exclusivity) and Section 3.4 (Co-Exclusivity), prior to the Effective Date, Seller entered into certain agreements to supply the NR Product or products containing NR Product to certain third parties ("**Prior Existing Obligations**"). A list of such Prior Existing Obligations are attached hereto as Exhibit D - Prior Existing Obligations (Exhibit D is hereby incorporated herein in full by this reference). Buyer agrees that Seller's continued performance under the Prior Existing Obligations is not a breach of this Agreement, provided however that Seller shall use commercially reasonable efforts to terminate such Prior Existing Obligations as soon as legally possible.

3.6 Regulatory Activities; Sub-Territory Reversion.

3.6.1 Seller's Regulatory Activities. Buyer and Seller acknowledge and agree that Seller is principally responsible for performing certain regulatory activities relating to the NR Product as set forth in this Section 3.6 and Seller agrees to proceed diligently, in good faith, and without delay ("**Seller's Regulatory Activities**"). To the extent that any of Seller's Regulatory Activities are required by applicable governmental regulators "**Applicable Regulators**") in order for Buyer to launch an Approved Product in a specific Sub-Territory, Seller's Regulatory Activities shall be conditions to Buyer's launch (and any related payment) obligations for such Approved Products (on a product by product basis in each Approved Product Category). If Seller is unable to obtain regulatory approval from the Applicable Regulators of any specific Approved Product as directed and recommended by Buyer, including dosage and regulatory categories set by Buyer, Buyer has the option to accept the Applicable Regulators' decision and/or guidance or, within [***] of Buyer's receipt of Applicable Regulators' final decision and/or guidance with respect to a particular Approved Product in a Sub-Territory, reject it in writing. If Buyer accepts such final decision or guidance, Seller's Regulatory Activities shall be deemed satisfied for the applicable Approved Product in the applicable Sub-Territory. If Buyer rejects Applicable Regulators' final decision and/or guidance with respect to a particular Approved Product in a Sub-Territory, Seller has the right to terminate all of Buyer's rights to sell the applicable Approved Products in the applicable Sub-Territory.

3.6.1.1 Functional Food and Beverages in United States. Buyer and Seller acknowledge that Seller has already obtained GRAS certification self-determination with successful FDA notification for certain Functional Food and Beverages, including vitamin waters, protein shakes, nutrition bars, gum, chews, and powdered beverages at a maximum level of 0.0057% by weight as consumed. Seller has successfully completed a New Dietary Ingredient Notification for nutritional drinks and meals to include NR use up to 300mg/day. Within [***] of the execution of this Agreement, Seller will endeavor to obtain a GRAS self-determination without notice status for certain mutually agreed Functional Food and Beverages to include NR use up to 500mg/day; provided however that Buyer and Seller shall consider the daily allowable dosage in light of intake products Buyer intends to Launch, it being acknowledged by Buyer that the more opportunities to intake NR Product, the lower the daily allowable usage may result.

3.6.1.2 Medical Nutrition in United States. Within [***] after the execution of this Agreement, Seller will use commercially reasonable efforts to obtain a GRAS self-determination without notification status at 1,000mg/day based on the Martens and Dollerup studies. Within [***] after the publication of the Washington Heart Study, anticipated to be completed by the end of [***], Seller will use commercially reasonable efforts to obtain a GRAS self-determination without notice status at 2,000mg/day.

3.6.1.3 Outside United States. Buyer and Seller shall meet within [***] of the Effective Date and periodically thereafter to arrive at a mutually agreed upon schedule of Sub-Territories outside the United States for which Seller will submit regulatory approval dossiers (the "**Schedule of International Markets**"). Buyer and Seller acknowledge that Brazil, Canada, Europe and Australia are the initial Sub-Territories on the Schedule of International Markets. Buyer and Seller shall exchange information as appropriate to facilitate the parties' efforts to obtain regulatory approvals, which might include scientific information to help accelerate the process.

3.6.2 Sub-Territory Reversion.

3.6.2.1 North America.

3.6.2.1.1 Functional Food and Beverages. If Buyer fails to Launch a Functional Food and Beverages Approved Product in North America within [***] of the Effective Date (the "**NA Functional Food and Beverages Reversion Period**"), all co-exclusivity rights of Buyer with respect to North America for such Approved Product Category shall terminate and there shall be no limitation on Seller's ability to sell NR Product in North America in such Approved Product Category after such termination (the "**NA Functional Food and Beverages Reversion**").

3.6.2.1.1.1 Reversion; Termination. Buyer can avoid the NA Functional Food and Beverages Reversion and extend its co-exclusivity rights for [***] (the "**NA FF&B Co-Exclusivity Extension**") if Buyer pays to Seller the equivalent of the Approved Product Launch Fee for Functional Food and Beverages for North America for such [***] (the "**NA FF&B Reversion Fee**"). The NA FF&B Reversion Fee must be received by Seller prior to the expiration of the NA Functional Food and Beverages Reversion Period in order for Buyer to exercise the NA FF&B Co-Exclusivity Extension. The NA FF&B Exclusivity Extension may be exercised only once. If Buyer elects not to remit such NA FF&B Reversion Fee, Buyer's co-exclusivity for Functional Food and Beverages in North America shall terminate and Seller shall have the option to terminate all of Buyer's rights to sell Functional Food and Beverages Approved Products containing the NR Product within North America (the "**NA FF&B Termination**") as its sole and exclusive remedy. Seller shall have [***] after Buyer's failure to pay the NA FF&B Reversion Fee to determine whether Seller is exercising the NA FF&B Termination. Seller shall provide the NA FF&B Termination notice in writing.

3.6.2.1.2 Medical Nutrition. If Buyer does not Launch a Medical Nutrition Approved Product in North America within [***] of the Effective Date (the "**NA Medical Nutrition Reversion Period**"), all exclusivity rights of Buyer with respect to North America for such Approved Product shall terminate and there shall be no limitation on Seller's ability to sell NR Product into Medical Nutrition in North America after such termination (the "**NA Medical Nutrition Reversion**").

3.6.2.1.2.1 Reversion; Termination. Buyer can avoid the NA Medical Nutrition Reversion and extend its exclusivity rights for [***] (the "**NA MN Exclusivity Extension**") if Buyer pays to Seller the equivalent of the Approved Product Launch Fee for Medical Nutrition for North America for such [***] (the "**NA MN Reversion Fee**"). The NA MN Reversion Fee must be received by Seller prior to the expiration of the NA Medical Nutrition Reversion Period in order for Buyer to exercise the NA MN

Exclusivity Extension. The NA MN Exclusivity Extension may be exercised only once. If Buyer elects not to remit such NA MN Reversion Fee, Buyer's exclusivity for Medical Nutrition in North America shall terminate and Seller shall have the option to terminate all of Buyer's rights to sell Medical Nutrition Approved Products containing the NR Product within North America (the "**NA MN Termination**") as its sole and exclusive remedy. Seller shall have [***] after Buyer's failure to pay the NA MN Reversion Fee to determine whether Seller is exercising the NA MN Termination. Seller shall provide the NA MN Termination notice in writing.

3.6.2.1.3 The NA Functional Food and Beverages Reversion Period and the NA Medical Nutrition Reversion Period shall be collectively referred to herein as the "**NA Reversion Period**" and the NA Functional Food and Beverages Reversion and the NA Medical Nutrition Reversion shall be collectively referred to herein as the "**NA Reversion**".

3.6.2.2 International. If Buyer does not Launch an Approved Product in an Approved Product Category in Europe, Latin America and/or Asia Pacific within [***] of the Effective Date (the "**Sub-Territory Reversion Period**"), all co-exclusivity rights in Functional Food and Beverages and all exclusivity rights in Medical Nutrition with respect to the relevant Sub-Territory shall terminate and there shall be no limitation on Seller's ability to sell NR Product in the relevant Sub-Territory in such Approved Product Category after such termination (the "**Sub-Territory Reversion**").

3.6.2.2.1.1 Reversion; Termination. Buyer can avoid the Sub-Territory Reversion and extend its co-exclusivity or exclusivity rights, as applicable, for [***] (the "**Sub-Territory Extension**") if Buyer pays to Seller the equivalent of the Approved Product Launch Fee per Approved Product Category for the relevant Sub-Territory for such [***] (the "**Sub-Territory Reversion Fee**"). The Sub-Territory Reversion Fee must be received by Seller prior to the expiration of the Sub-Territory Reversion Period in order for Buyer to exercise the Sub-Territory Extension. The Sub-Territory Extension may be exercised only once. If Buyer elects not to remit such Sub-Territory Reversion Fee, Buyer's co-exclusivity rights for Functional Food and Beverages and its exclusivity rights for Medical Nutrition shall terminate in the relevant Sub-Territory and Seller shall have the option to terminate all of Buyer's rights to sell the Approved Products containing the NR Product within the relevant Category and Sub-Territory (the "**Sub-Territory Termination**") as its sole and exclusive remedy. Seller shall have [***] after Buyer's failure to pay the Sub-Territory Reversion Fee to determine whether Seller is exercising the Sub-Territory Termination. Seller shall provide the Sub-Territory Termination notice in writing.

3.6.2.3 The NA Reversion and Sub-Territory Reversion shall collectively be referred to herein as the "**Reversions**." The NA FF&B Reversion Fee, NA MN Reversion Fee and Sub-Territory Reversion Fee shall collectively be referred to herein as the "**Reversion Fees**".

3.7 Reservation of Rights. Other than the specifically enumerated, limited exclusivity and co-exclusivity rights sets forth in this Agreement, Seller is entitled to develop, manufacture, sell, promote, import, and distribute any items, products, materials, and rights in its sole discretion. Any rights not specifically granted to Buyer are hereby reserved to Seller.

3.8 Recall and Termination Under A Recall. If any Approved Products are at any point during the Term subject to a Class I product recall and are likely to cause serious health problems or death requiring notification by the USFDA, ChromaDex has the right to direct Buyer to refrain from selling or distributing the affected Approved Products until the situation is resolved to ChromaDex's reasonable satisfaction, and without liability to NHSc therefor.

4. Ordering, Purchase Price and Payment.

4.1 Forecasts. Buyer shall provide to Seller a good faith projection or estimate of the quantity of NR Products that Buyer may order each month for a [***] period (the "**Forecast**"). The first [***] of the Forecast shall be binding (the "**Binding Forecast**") and reflected in the Purchase Order (defined below) with the remaining [***] constituting a rolling Forecast which shall be an estimate only of Buyer's production requirements and not a firm order for the NR Products. Seller will maintain sufficient inventory and manufacturing capacity to produce up to [***] percent ([***]%) of Buyer's estimated purchases for the Forecast period.

4.2 Purchase Orders. Buyer agrees to submit to Seller a binding purchase order, which will specify, among other things, (i) the quantity of NR Product ordered and (ii) the delivery date (the "**Purchase Order**") at least [***] in advance of any required NR Product delivery date. All NR Product will be made available for pick up at Seller's designated facility ("**Seller's Facility**"). Each Purchase Order will not vary by more than [***] percent ([***]%) from the applicable Binding Forecast. Any terms contained in any Purchase Order which are inconsistent with the terms of this Agreement, shall be excluded and are of no force and effect. **In the event of a conflict between the terms of this Agreement and a Purchase Order, the terms of this Agreement shall prevail.** Seller shall confirm to Buyer the receipt of each Purchase Order within [***] after receipt and provide to Buyer the dates by which Seller will deliver the NR Products to Seller's Facility. Legally binding obligations for the purchase of NR Products will be created when Buyer submits the Binding Forecast. Seller will fulfill Purchase Orders within the requested timeframe (barring any Force Majeure Events). The minimum purchase order quantity shall be [***]kg and minimum pack size shall be [***]kg. The NR Product shall have a minimum remaining shelf life of [***] upon availability at Seller's Facility.

4.3 Purchase Price. Buyer shall pay to Seller the following Fees:

4.3.1 **Exclusivity Fee**. In exchange for the exclusivity and co-exclusivity set forth in this Agreement, Buyer shall pay to Seller within [***] of the Effective Date a one-time, non-refundable payment of Four Million United States Dollars (US$4,000,000.00) (the "**Exclusivity Fee**").

4.3.2 **Approved Product Launch Fees**. Following the Launch of the first Approved Product in the respective Approved Product Category in a country in the respective Sub-Territory, Buyer shall pay to Seller within [***] following the relevant Launch a one-time, non-refundable payment in the amounts set forth below ("**Approved Product Launch Fees**"):

Approved Product	North America	Europe	Latin America	Asia Pacific
Functional Food and Beverages	US$[***]	US$[***]	US$[***]	US$[***]
Medical Nutrition	US$[***]	US$[***]	US$[***]	US$[***]

For the avoidance of doubt, Approved Product Launch Fees are only payable once per Approved Product Category and Sub-Territory, i.e. the maximum Approved Product Launch Fees under this Agreement in the event the Buyer launches one or several Approved Medical Nutrition product and one or several Approved Functional Foods and Beverages product in each Sub-Territory is maximum US$6,000,000.00.

4.3.2.1 The Reversion Fees are separate and apart from the Approved Product Launch Fees and payment of a Reversion Fee, if any, shall not be applicable against the Approved Product Launch Fees. The Approved Product Launch Fees shall not be applicable against the Exclusivity Fee, any Sales Fees (defined below), or any Annual Minimum Royalty.

4.3.3 NR Product Fees. The purchase price of the NR Product purchased by Buyer from Seller pursuant to the Purchase Orders shall be calculated as follows:

4.3.3.1 [***] United States Dollars per kilogram (US$[***]/kg) for purchase orders placed in 2018 and 2019 (the "**KG Price**"). The KG Price for future years will be mutually determined by the Parties and agreed to in advance in writing by both parties; plus

4.3.3.2 A percent of the Net Sales of Approved Products sold by Buyer as set forth below (the "**Sales Fees**") (for purposes of clarification, this is for all Approved Products and not per Approved Product Category) :

Cumulative worldwide Annual Net Sales:	**Sales Fee:**
[***]	[***] Percent ([***]%)
[***]	[***] Percent ([***]%)
[***]	[***] Percent ([***]%)
[***]	[***] Percent ([***]%)
[***]	[***] Percent ([***]%)
[***]	[***] Percent ([***]%)

4.3.3.3 The Sales Fees will be calculated based on cumulative worldwide gross Net Sales per each calendar year. The first calendar year of the Agreement shall be deemed to be the Effective Date through December 31, 2019. Thereafter, each calendar year shall commence on January 1st and end on December 31st.

4.3.3.4 Commencing twenty four (24) months after Buyer has Launched an Approved Product in the relevant category ("**Royalty Year 1**"), Buyer will pay Seller the following minimum royalties on an annual basis for such Approved Product Category as indicated below (the "**Annual Minimum Royalty**"):

Royalty Year*	**Functional Food and Beverages Category: Annual Minimum Royalty**	**Medical Nutrition Category: Annual Minimum Royalty**
[***]	[***]	[***]
[...***...]	[***]	[***]

* The Annual Minimum Royalty shall be prorated for any partial calendar year.

4.3.3.5 Sales Fees shall be due quarterly and shall be payable within [***] of Buyer's receipt of an invoice from Seller reflecting the Sales Fee amount set forth in the sales report for such period submitted by Buyer pursuant to Section 5.2 of this Agreement.

4.3.3.6 Sales Fees payable on Net Sales of Approved Products will be applicable against and offset only against the Annual Minimum Royalty. If the total Sales Fees for any calendar year exceed the combined Annual Minimum Royalty due for all Approved Product Categories in which an Approved Product has been launched, no additional Annual Minimum Royalty shall be due for that calendar year.

4.3.3.7 In the event that the Sales Fees are less than the Annual Minimum Royalties, Buyer shall pay the difference between the total Annual Minimum Royalty in all Approved Product Categories in which an Approved Product has been launched combined less the amount of Sales Fees received by Seller for the relevant calendar year (the "**Sales Fee True Up**"). The Sales Fee True Up shall be paid within [***] of the end of relevant calendar year. In the event that Buyer does not pay Seller the Annual Minimum Royalty in a particular calendar year, Buyer will lose all exclusivity and co-exclusivity rights with respect to NR Product, products containing NR Product, and uses thereof and Seller shall have the option to terminate all of Buyer's rights to sell the Approved Products in the Sub-Territory for which the Annual Minimum Royalty was not paid ("**Annual Minimum Royalty Termination**").

4.3.3.8 The Sales Fees set forth in clause 4.3.3.2 above will be reduced by an amount equal to [***] percent ([***]%) of such Sales Fees with respect to an Approved Product in each country in the Territory if for the applicable calendar quarter there is a product that (a) contains NR and (b) is either (i) a Functional Food or (ii) a Medical Nutrition product, has been approved by the applicable regulatory authority and is being sold in such country by a Third Party (a "**Competing Product**"). Notwithstanding the foregoing, such [***] percent ([***]%) reduction to the Sales Fees will not apply if and for so long as unit sales of Competing Products in such country are lower than (i) [***] percent ([***]%) of the units of Buyer's sales in the corresponding period in such country or (ii) [***] percent ([***]%) of the units of Buyer's sales in the corresponding period in such country if Seller has brought an action in a court of competent jurisdiction challenging such Competing Product. No Annual Minimum Royalties or Sales Fees on the Net Sales of Approved Products sold by Seller to Buyer are due with respect to any given Sub-Territory after the expiration, final invalidation or abandonment of **all** of Seller's applicable issued patents and applicable filed patent applications for the NR Product in such Sub-Territory, or when Seller no longer has the right to sell the NR Product in such Sub-Territory.

4.3.3.9 The KG Price shall be due [***] after the date of shipment of NR Product based on each Purchase Order (and corresponding with Seller's invoice date). The Sales Fees shall be due within [***] after the last day of each calendar quarter. In the event that, after first sale of an Approved Product, there are no sales made during a given calendar quarter, Buyer shall provide ChromaDex with a statement within [***] after the last day of such quarter reporting that no sales were made during such quarter.

4.3.3.10 In the event Buyer, via benchmarking, can demonstrate a gap between the price being charged by Seller and the competition or market price, or the price movement and the market price movement, for NR Products in comparable quality and quantity, Buyer and Seller will meet to discuss ways to remedy the situation. Further the Seller agrees not to sell or supply NR Products to any third party at a price lower than the applicable price charged to Buyer for the same volume of NR Products.

4.4 Payments.

4.4.1 Late Payments. Failure to make prompt and full payment of undisputed amounts hereunder constitutes a material breach of this Agreement and to take the measures as set forth in Section 15.2 of this Agreement. Buyer has no right of setoff. If full payment is not made when due, Seller shall be entitled to interest on any amount unpaid at the rate of [***] percent ([***]%) per [***] or the maximum rate permissible by applicable law until Seller receives payment in full. In addition, if any amount payable to Seller is not received by Seller within [***] of the due date, Buyer agrees to reimburse Seller for any and all commercially reasonable out-of-pocket expenses Seller may incur, including reasonable attorneys' fees, in taking any action to obtain such overdue payments contemplated by this Section.

4.4.2 Method of Payment. All payments under this Agreement should be made payable to "ChromaDex, Inc." and sent via wire transfer as indicated below. Each payment should reference this Agreement and identify the obligation under this Agreement that the payment satisfies. Buyer shall remit payment to the following account (or such other accounts(s) as ChromaDex may specify in writing):

ChromaDex, Inc.
Attention: [***]
Account # [***]
ABA#: [***]
Bank: [***]
Address: [***]
Address: [***]

Remittance detail for wire
transfers must also be sent either
by fax or e-mail to:
Fax: [***], Attention:
[***]
E-mail: [***]

4.4.3 Payments in U.S. Dollars. All payments due under this Agreement shall be drawn on a United States bank and shall be payable in United States dollars. Conversion of foreign currency to U.S. dollars shall be made at the conversion rate existing in the United States (as reported in the Wall Street Journal) on the last working day of the calendar quarter of the applicable Reporting Period. Such payments shall be without deduction of exchange, collection, or other charges, and, specifically, without deduction of withholding or similar taxes or other government imposed fees or taxes, except as permitted in the definition of Net Selling Price.

5. REPORTS AND RECORDS.

5.1 Progress Reports.

5.1.1 Within [***] after the Effective Date (and an updated version [***] thereafter), Buyer shall furnish ChromaDex with a high level research and development plan describing the major tasks to be achieved in order to bring to market an Approved Product (including updates and progress and regulatory milestones achieved for the prior report). Such plans can be written or consist of conversations between NHSc and ChromaDex's scientific and project management representatives.

5.1.2 Before First Commercial Sale. Prior to the first Launch of the first Approved Product, Buyer shall deliver reports to ChromaDex [***], within [***] of the end of each [***], containing reasonably detailed high level information concerning the immediately preceding [***], regarding Buyer's progress towards commercialization including, but not limited to, progress towards regulatory approvals. In addition, Seller will provide Buyer with [***] updates on status and progress of the Seller Regulatory Obligations and any related regulatory approvals that Seller is undertaking that may impact Buyer's launch plans for each territory.

5.1.3 Upon First Commercial Sale of an Approved Product. Buyer shall report to ChromaDex the date of first commercial sale of each Approved Product in each Sub-Territory within [***] of occurrence.

5.2 Sales Reports.

5.2.1 After the first commercial sale of each Approved Product, Buyer shall deliver reports to ChromaDex within [***] of the end of each Reporting Period, containing information concerning the immediately preceding Reporting Period.

5.2.2 Each report delivered by Buyer to ChromaDex shall contain sufficient detail to permit confirmation of the accuracy of the Sales Fee for such period, including the following information for the immediately preceding Reporting Period only to the extent that such information may be applicable to such Reporting Period and shall be in a form as mutually agreed by the parties:

(i) the number of Approved Products sold by Buyer and its Affiliates to independent third parties in each Sub-Territory of the Territory;

(ii) the Gross Sales Price charged by Buyer and its Affiliates for each Approved Product in each Sub-Territory of the Territory (for the total Gross Sales Price of each Approved Product sold by Buyer);

(iii) calculation of Net Sales for each Approved Product for the applicable Reporting Period in each Sub-Territory of the Territory, including a listing of Allowable Deductions and allowed taxes; and

(iv) total Sales Fee due in U.S. dollars, together with the exchange rates used for conversion.

5.3 Records, Audit, and Payment. Buyer shall maintain, and shall cause its Affiliates if and as applicable, to maintain, complete and accurate records relating to the rights and obligations under this Agreement and any amounts payable to ChromaDex in relation to this Agreement, which records shall contain sufficiently clear and detailed information to permit ChromaDex to confirm the accuracy of any reports delivered to ChromaDex and compliance in all other respects with this Agreement. The relevant party shall retain such records for at least [***] following the end of the calendar year to which they pertain, during which time ChromaDex, or ChromaDex's appointed agents, shall have the right, at ChromaDex's expense, to inspect such records during normal business hours to verify any reports and payments made or compliance in all other respects under this Agreement. Requests for an audit shall be made in writing. The audit shall occur within [***] after receipt of such written request. In the event that any audit performed under this Section reveals an underpayment in excess of [***] Dollars ($[***]), Buyer shall bear the full reasonable cost of such audit and shall correct any errors and omissions disclosed by such audit and remit any amounts due to ChromaDex within [***] of receiving notice thereof from ChromaDex.

6. Taxes and Import Duties. The KG Price does not include federal taxes, state or local sales taxes, use taxes, occupational taxes or import duties, all of which are the obligation of Buyer. Unless prohibited by law, Buyer is responsible for and shall pay all applicable sales, use, occupational, excise, value added or other similar taxes or import duties applicable to the manufacture, sale, price, delivery or use of the NR Product provided by Seller, or in lieu thereof, Buyer shall provide Seller with a tax-exemption certificate acceptable to and considered valid by the applicable taxing authorities.

7. **Delivery and Risk of Loss**. Shipping terms for the Products are FOB Seller's Facility. Seller shall bear all risk of loss or damage to NR Products until the NR Products are tendered to Buyer or its carrier for shipment at Seller's Facility. Seller shall also assume full responsibility for any loss or damage to NR Products in the care, custody, or control of Seller until such time as title to the NR Product passes. Title shall pass at the time the NR Products are tendered to Buyer or its carrier for shipment at Seller's Facility. At such time as title passes Buyer shall be fully responsible and shall hold Seller harmless for and assume all risk for any loss, destruction, or damage to the NR Product. Seller reserves the right to pack orders in the most economical manner, provided that this does not result in increased risk of loss of the NR Product. However, where Buyer requests special packaging or shipping, any additional cost will be billed to and be the responsibility of Buyer. Buyer acknowledges that, subject to Section 9 of this Agreement, Seller cannot accept returns, unless they do not meet the applicable Specifications or are otherwise defective and Seller is notified in writing within [***] of the delivery date of such defect or failure to meet applicable Specifications.

8. **Delivery Delays**. Seller shall use commercially reasonable efforts to make the NR Products available to Buyer on or before the delivery date set forth in the relevant Purchase Order. Delivery dates and estimates are, however, subject to Force Majeure Events. Once the NR Products are available for Buyer's pick up, Buyer shall pick up and remove the NR Products promptly from Seller's Facility, however in no event shall Buyer delay or defer pick up for more than [***].

9. **Rejection and Revocation of Acceptance**. Any rejection or revocation of acceptance of NR Product by Buyer that is based on initial inspection of the NR Product must be made within [***] of delivery of NR Product to Buyer. All shipments of NR Product shall be tested and inspected by Buyer during such [***] period. Rejection or revocation of acceptance of NR Product by Buyer shall be based the failure of NR Product to conform to the Specifications or any other representation, warranty or obligation set forth in this Agreement (including the exhibits hereto) in any material respect. Any attempted rejection or revocation of acceptance of such NR Product made thereafter shall be null and void except for any latent defects that Buyer did not detect after a reasonable initial inspection and acceptance. Each shipment hereunder is to be regarded as a separate and independent sale.

10. **Obligations.**

10.1 The identities of Seller's suppliers are a proprietary trade secret of Seller. All information regarding Seller's suppliers and their quality standards released to Buyer shall be kept strictly confidential in accordance with the requirements herein. Buyer acknowledges and agrees that Buyer will not contact ChromaDex's supplier(s) in connection with the manufacture, distribution, purchase, pricing, or sale of NR, NR Product, or any other NR or NR Product precursor or otherwise as indicated in further detail in the Non-Solicitation, Non-Competition, and Non-Circumvention provision herein.

10.2 Buyer shall not sell Approved Product other than in the Field in the Territory

10.3 Approved Product must contain a minimum of [***]mg of NR Product per serving (unless Buyer and Seller agree otherwise in advance in writing) and comply with the New Dietary Ingredient (NDI) Notifications submitted by Seller to the FDA on August 20, 2015 and filed by the FDA on November 3, 2015 and submitted by Seller to the FDA on December 27, 2017 and filed by the FDA on March 7, 2018.

10.4 Buyer may not re-sell or re-ship the NR Product to a third party (other than an Affiliate or a co-manufacturer appointed by Buyer) in bulk raw material form, unless expressly authorized to do so in advance in writing by Seller.

10.5 For U.S. distribution, on or in labels, packaging, advertising, promotional materials or Internet communications for Buyer's Approved Product, Buyer will only make claims that in Buyer's commercially reasonable assessment are substantiated by competent and reliable scientific evidence, and are in compliance with all applicable laws, rules, statutes, and regulations. Buyer will not misrepresent on product labels the amount, quantity or level of the NR Product contained in the Approved Product. Buyer hereby guarantees compliance with the requirements of this Section 10, specifically including compliance with current Good Manufacturing Practices as set forth in 21 CFR Section 111 and other relevant rules, regulations, statutes, and laws. In the event that current labeling, packaging or formulations of the Approved Product do not comply with the requirements of this Section 10, Buyer will

promptly rectify all nonconforming Approved Product in a manner reasonably acceptable to Seller and at Buyer's sole cost and expense.

10.6 Patent Marking. During the Term, Buyer will ensure proper patent marking on all Approved Product. All Approved Product shall be marked as negotiated and agreed upon by the parties in good faith.

10.7 Trademark Marking. During the Term, Buyer will ensure proper trademark marking on all Approved Product that includes a ChromaDex Trademark as set forth in this Agreement.

11. ChromaDex Trademarks. Provided that Buyer is not in material breach of this Agreement, ChromaDex hereby grants Buyer a fully paid-up, royalty-free, non-exclusive, non-sublicensable (other than to its Affiliates) right and license to use the ChromaDex Trademarks only as provided below:

11.1 Buyer agrees to use the ChromaDex Trademarks in accordance with this Section, and in accordance with ChromaDex's Brand Usage Guidelines. The parties shall negotiate and agree upon in good faith the display (prominence and location) of the ChromaDex Trademarks on Approved Product labels and marketing materials.

11.2 For the avoidance of doubt, ChromaDex rights in accordance with this Section are limited to solely the right to review if the ChromaDex Trademarks are being used by Buyer in accordance with this Agreement. ChromaDex has no right to control the content of any promotional material.

11.3 Buyer agrees to include the ChromaDex Trademark "TRU NIAGEN® on the product packaging (with the exception of small product formats like sachets). Any use of the ChromaDex Trademarks and other proprietary markings and notices of ChromaDex by Buyer shall be consistent with ChromaDex's Brand Usage Guidelines.

11.4 All use of ChromaDex Trademarks and any related goodwill will all inure to ChromaDex's benefit.

11.5 Any use of the ChromaDex Trademarks by Buyer outside the scope of ChromaDex's Brand Usage Guidelines or any use of the ChromaDex Trademarks that are not used for labeling, packaging, marketing and advertising of the Approved Products in the ordinary course (e.g. press releases) require the prior written approval of Seller.

11.6 Subject to the limitations set forth above, Buyer agrees to abide by ChromaDex's reasonable written ChromaDex Brand Usage Guidelines as issued and provided to Buyer from time to time. In any case where the ChromaDex Trademarks are not used in compliance with ChromaDex's trademark policies, Buyer will as soon as reasonably commercially practical correct the non-compliance and submit samples of compliant use to ChromaDex for prior written approval.

11.7 The Approved Products will be marketed by Buyer under a trade name or trademark to be determined by Buyer in its sole discretion, subject to the obligation that Buyer will not use confusingly similar marks or trade dress as compared to the ChromaDex Trademarks (and ChromaDex also agrees not to use confusingly similar marks or trade dress as compared to Buyer trademarks or trade dress).

11.8 ChromaDex has the right to supervise the Buyer's use of the ChromaDex Trademarks with respect to the nature and quality of the Approved Products to ensure that any such trademarks are used by Buyer pursuant to this Agreement. During the Term, without limitation, Buyer agrees to use the ChromaDex Trademarks on and only in connection with the Approved Products in strict accordance with this Agreement.

11.9 Buyer agrees to always use a ChromaDex Trademark accompanied by an appropriate noun as shown in ChromaDex's Brand Usage Guidelines. Buyer further agrees that Buyer shall not use any ChromaDex Trademarks as a noun and that Buyer shall not pluralize, make possessive, abbreviate, or join any ChromaDex Trademark to other words, symbols, or numbers, either as one word or with a hyphen.

11.10 Buyer shall always use the proper spelling and the proper trademark symbol for the ChromaDex Trademarks in accordance with ChromaDex's Brand Usage Guidelines.

11.11 Buyer shall attribute ownership of all ChromaDex Trademarks to ChromaDex by using the TM, SM, or ® symbol (as indicated in ChromaDex's Brand Usage Guidelines) and by using the trademark attribution on all marketing and collateral materials for the Approved Product as indicated in ChromaDex's Brand Usage Guidelines or as otherwise mutually agreed in writing by the Parties. For the trademark symbol, the superscript or subscript mode is preferred, but if it is not available, use parentheses: (TM), (SM) or (R).

11.12 Buyer may not incorporate Buyer's and/or any other third party mark into any ChromaDex Trademark nor may Buyer integrate any ChromaDex Trademark into any of Buyer's own trademarks, logos, or designs. Buyer shall not alter, make puns on, or modify the ChromaDex Trademarks in any way, nor may Buyer use and/or adopt any marks or logos that are confusingly similar to or that dilute any ChromaDex Trademarks.

11.13 Buyer shall not use any ChromaDex Trademark in any manner that creates confusion as to the source, sponsorship, or association of Buyer's products and/or site or facility with ChromaDex or, that in any way indicates to the public that Buyer is a division or Affiliate, or franchisee of ChromaDex or otherwise related to ChromaDex. Buyer may not use or display any ChromaDex Trademarks on Buyer's invoices, bills, shipping memos, and/or letterhead, and Buyer may not incorporate any ChromaDex Trademarks into any company name or product name.

11.14 Buyer shall not re-use, copy, modify, and/or counterfeit packaging associated with any ChromaDex product. To do so will constitute a material breach of this Agreement and ChromaDex shall have the right to terminate this Agreement. ChromaDex further reserves all rights to pursue any and all remedies available to it as a result of Buyer's selling and/or manufacturing any remarked, counterfeited, copied, re-used, modified ChromaDex Trademark, ChromaDex product, and/or ChromaDex product packaging.

11.15 Buyer shall not use any ChromaDex Trademarks on any promotional material created by Buyer in close proximity to non-Approved Products unless it is completely clear that the ChromaDex Trademark is being used and associated solely with the appropriate Approved Product. Buyer agrees to take all steps necessary to avoid creating the false impression that ChromaDex is in any way the source, sponsor, or licensor of any product that is not an Approved Product.

11.16 Buyer shall not use or display any ChromaDex Trademarks in any manner that may disparage ChromaDex, its products or services, or for promotional goods or for products which, in ChromaDex's sole discretion may diminish or otherwise damage ChromaDex's goodwill in any ChromaDex Trademarks, including but not limited to, uses which could be deemed to be obscene, pornographic, excessively violent, or otherwise in poor taste or unlawful, or which purpose is to encourage unlawful activities.

11.17 Notwithstanding any of the foregoing, Buyer is not prohibited from making textual, non-logo use in advertising, promotional materials, and invoices of ChromaDex product names to refer to ChromaDex products that Buyer is selling, so long as such product names are used properly as trademarks with the appropriate trademark symbol and attribution legend as required by ChromaDex's Brand Usage Guidelines.

11.18 All Approved Product shall conform with the requirements herein, including, but not limited to, ChromaDex's Brand Usage Guidelines. Approved Product labels must be submitted to Seller prior to launch and approved by Seller in advance in writing as to the use of ChromaDex's Trademarks. Seller will not unreasonably withhold approval. If Seller does not reject a submitted label within [***], such label is deemed accepted. Seller shall indicate to Buyer Seller's reasons for withholding approval which must be consistent with the requirements set forth in this Agreement. Buyer at Buyer's sole cost and expense shall ensure all Approved Product labels meet all applicable laws, rules, statutes, and regulations and all of Seller's requirements for approval set forth in this Agreement.

12. <u>Buyer Diligence Obligations</u>. Buyer shall use commercially reasonable diligent efforts, or shall cause its Affiliates to use commercially reasonable diligent efforts, to develop Approved Products and to introduce Approved Products into the commercial market; thereafter, Buyer or its Affiliates shall make Approved Products reasonably available to the public.

13. **NR Trade Secret Use**. In connection with the rights granted herein, Buyer needs access to certain clinical and non-clinical data, agreements, and know-how with respect to NR, NR Product, and uses thereof (collectively the "**NR Trade Secrets**"). Buyer acknowledges that as between Buyer and Seller, Seller owns all right, title and interest in and to the NR Trade Secrets. Neither Buyer nor any of its Affiliates will contest Seller's sole ownership and control over the NR Trade Secrets. Seller hereby agrees to make certain current and future NR Trade Secrets, in Seller's sole discretion, available to Buyer solely for Buyer's use to develop, manufacture and sell the Approved Products (the "**Disclosure Purpose**"). Except for the Disclosure Purpose, Buyer hereby agrees that Buyer shall not use or disclose the NR Trade Secrets. Buyer shall be entitled to share portions of the NR Trade Secrets with its Affiliates on a need to know basis provided that such Affiliates sign a confidentiality and non-disclosure agreement at least as restrictive as this Agreement. Upon expiration or earlier termination of this Agreement for any reason, Buyer and its Affiliates shall immediately cease use of all NR Trade Secrets and shall return all copies in any form (digital or otherwise) of the NR Trade Secrets to Seller within [***] of Seller's request, and neither Buyer nor its Affiliates shall maintain any copies of any NR Trade Secrets.

14. **Right of First Negotiation**. In the event that ChromaDex, in its sole discretion, decides to exclusively license or sell substantially all assets related to the NR Product in the dietary supplement category (the "**Divesting Assets**"), ChromaDex shall advise Buyer and Buyer shall have a right of first negotiation for a period of [***] to acquire the Divesting Assets under terms and conditions to be negotiated in good faith by the Parties. If after [***] the Parties are unable to reach mutually agreeable terms and conditions, ChromaDex shall have the ability to sell or license the Divesting Assets in its sole discretion to a third party.

15. **Term and Termination**.

15.1 Term. This Agreement shall commence on the Effective Date and, unless earlier terminated in accordance herewith, shall remain in full force and effect (the "**Term**"). For purposes of clarification, the Sales Fee and exclusivity and Buyer's Co-Exclusivity (unless such exclusivity and/or Buyer's Co-Exclusivity have been previously terminated pursuant to the terms hereof) shall terminate upon the expiration of the last relevant claim of ChromaDex's applicable issued patents and applicable filed patents for the NR Product. Such applicable issued patents and applicable filed patents for the NR Product are as indicated on Exhibit F – Applicable Issued Patents and Applicable Filed Patents for the NR Product (as may be amended by ChromaDex from time to time) (Exhibit F is hereby incorporated herein in full by this reference)

15.2 Termination. This Agreement may be terminated by: (i) a Party for cause if the other Party commits a material breach of this Agreement and does not cure such breach within thirty (30) days following such Party's receipt of written notice reasonably detailing such breach from the non-breaching Party; (ii) a Party immediately upon the giving of written notice if the other Party files a petition for bankruptcy, is adjudicated bankrupt, takes advantage of the insolvency laws of any state, territory or country, or has a receiver, trustee, or other court officer appointed for its property; or, (iii) a Party if a Force Majeure Event (as described in Section 20 of this Agreement) with respect to the other Party shall have continued for ninety (90) days or is reasonably expected to continue for more than one hundred eighty (180) days.

15.3 Buyer's Further Termination Rights. Buyer shall have the right to terminate this Agreement under the following circumstance:

15.3.1 Buyer may terminate this Agreement if Buyer's Technical Feasibility in desired food forms is not achieved by December 31, 2019 by providing Seller sixty (60) days advanced written notice;

15.3.2 After the first anniversary of this Agreement until the twenty-fourth (24th) month after the Launch of the first Approved Product in each Product Category, Buyer may terminate this Agreement as to one or both Product Categories upon the payment of the Termination Fee for the terminated Product Category, which shall be paid promptly following Seller's receipt of the termination notice;After the twenty-fifth (25th) month of the Launch of the first Approved Product, Buyer may terminate this Agreement with twelve (12) months advance written notice. No Termination Fee shall be due.

15.3.3 The "**Termination Fee**" shall be Five Hundred Thousand Dollars (US$500,000) for each Product Category terminated, with a cap of One Million Dollars (US$1,000,000).

15.3.4 ChromaDex will receive monthly updates on Buyer's Technical Feasibility progress and other technical data from Buyer as further detailed in the Reports and Records Section herein and will offer reasonable assistance to Buyer in solving technical development issues as they arise. Seller shall have no obligation to reimburse Buyer any amounts already due and owing and/or paid under this Agreement in the event of a termination by Buyer pursuant to Section 15.3 of this Agreement.

15.4 Effect of Termination.

15.4.1 Survival. Any payment obligation of Buyer, Buyer's obligations under Sections 13, 16.2, 17, 18, 21, and 22-37, and any other term of this Agreement that by their nature are meant to survive the termination of this Agreement, including all provisions that contemplate continuing effectiveness, including, without limitation, any term regarding warranty disclaimer, limitations of liability, indemnification, intellectual property rights, governing law/venue/prevailing party and general terms, shall so survive any termination of this Agreement.

15.4.2 Inventory. Upon the early termination of this Agreement, Buyer and its Affiliates may complete and sell any work-in-progress and inventory of Approved Products that exist as of the effective date of termination (unless termination is based on cause or a breach by Buyer of ChromaDex's intellectual property rights or Buyer's confidentiality rights herein), provided that (i) Buyer pays Seller the applicable royalty on the Net Sales or other amounts due on such sales of Approved Products in accordance with the terms and conditions of this Agreement, and (ii) Buyer and its Affiliates shall complete and sell all work-in-progress and inventory of Approved Products within [***] after the effective date of termination.

15.4.3 Pre-termination Obligations. In no event shall termination of this Agreement release Buyer or its Affiliates from the obligation to pay any amounts that became due on or before the effective date of termination.

15.4.4 Buyer's Post-Termination Obligations. After the termination hereof and Buyer's exercise of the rights granted herein in the Inventory Section above, Buyer shall have no further rights to use the NR Product, sell Approved Product, or use any of the other rights granted to Buyer herein (including, but not limited to rights to the ChromaDex Trademarks and ChromaDex Trade Secrets). Buyer shall further return to ChromaDex all of ChromaDex's Confidential Information (as defined herein).

16. Representations And Warranties.

16.1 **Seller's Representations and Warranties.**

Seller expressly represents and warrants that:

(a) It has all necessary legal capacity, right, power, and authority to enter into, execute, deliver, and be bound by this Agreement and that the execution and delivery of this Agreement and the performance by Seller of Seller's obligations under this Agreement, do not breach, and shall not result in a breach or violation of, any agreement to which Seller is a party or by which Seller is bound.

(b) Seller is the owner of all or has the right to (i) license Buyer the rights to use the ChromaDex Trademarks and NR Trade Secrets as specifically set forth in this Agreement, and (ii) grant Buyer the rights to develop, manufacture, and sell the Approved Products using the patents listed in Exhibit F on the terms set forth in this Agreement;

(c) All patents that are necessary for Buyer to use the NR Product to be supplied to Buyer in the development, manufacture, promotion, importation, marketing, distribution and sale of Approved Products are set forth in Exhibit F;
(d) Seller has not received any notice regarding the NR Product, including written notice, alleging any infringement by Seller of any intellectual property rights of a third party;
(e) To the best of Seller's knowledge after due diligence and reasonable investigation, neither Seller, its Affiliates or any person employed thereby directly in the performance of Seller's obligations under this Agreement has been debarred under Section 306(a) or (b) of the Federal Food, Drug and Cosmetic Act, and no debarred person will in the future by employed by Seller. If, at any time after execution of this Agreement, Seller becomes aware that Seller, any of its Affiliates or any person employed thereby is, or is in the process of being, debarred, Seller will so notify NHSc immediately.
(f) No NR Product at the time of shipment by Seller will be adulterated or misbranded within the meaning of the Federal Food, Drug and Cosmetic Act, as amended from time to time, or regulations promulgated thereunder, as such law or regulation is constituted and in effect at the time of any such shipment and no NR Product at the time of shipment will be considered to be an article that may not, under the provisions of §§ 404, 505 or 512 of the Federal Food, Drug and Cosmetic Act, be introduced into interstate commerce.
(g) All NR Product at the time furnished to Buyer and for the full period of the expected shelf life of such products will be in full compliance with the Specifications, the quality standards set forth in Exhibit G – Quality Standards (the "**Quality Standards**") (Exhibit G is hereby incorporated herein in full by this reference), applicable Law and other requirements of this Agreement as long as Buyer's errors, acts, omissions, or other conduct do not cause directly or indirectly the NR Product to become out of compliance with the Specifications, fail to meet the Quality Standards or violate applicable law and other requirements of this Agreement.
(h) Seller's manufacturing, laboratory, and packaging facilities are and will at all times remain in material compliance with Good Manufacturing Practices, including but not limited to those set forth in 21 C.F.R. § 110 et seq., to the extent applicable to the manufacture and packaging of the NR Product, and all NR Product furnished to Buyer will be manufactured in accordance with Good Manufacturing Practices.
(i) All NR Product at the time furnished to Buyer will not have been damaged during storage and handling and will otherwise be wholesome, fit for human consumption, and in first-class merchantable condition.
(j) Seller has and will maintain during the Term the necessary expertise, equipment, personnel, facilities, equipment and inventory of raw materials and finished product to supply the NR Products as agreed upon in all Purchase Orders accepted by Seller (unless Seller is unable to due to a Force Majeure Event).
(k) Except as otherwise advised by Seller in writing to Buyer on or prior to the Effective Date, there is no demand, claim, suit, action, arbitration, and/or other proceeding, whether pending or threatened (and for which any basis exists), that jeopardizes (or could jeopardize) Seller's ability to enter into this Agreement or perform any of its obligations hereunder.
(l) It will at all times during the Term comply with all applicable laws, rules, orders, guidelines and regulations, including the ones regarding the following matters: anticorruption, immigration, antidiscrimination, tax, environment, data protection, food safety and quality, and export control, import, customs and economic sanctions.
(m) Have a quality management system in accordance with Nestlé's reasonable requirements of which Seller is advised of and agrees to in advance in writing.

16.2 LIMITED WARRANTY AND DISCLAIMER OF ALL OTHER WARRANTIES.

(i) SELLER WARRANTS THAT THE NR PRODUCT SOLD HEREUNDER, AS DELIVERED TO BUYER, CONFORMS, TO ITS SPECIFICATIONS; (a) EXCEPT FOR THE SPECIFIC WARRANTIES CONTAINED IN THIS PARAGRAPH AND ELSEWHERE IN THE AGREEMENT, SELLER HEREBY EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED OR STATUTORY, WITH RESPECT TO THE NR PRODUCT OR OTHERWISE UNDER THIS AGREEMENT, INCLUDING BUT NOT LIMITED

TO, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SELLER HAS NOT MADE ANY RECOMMENDATION TO BUYER REGARDING THE USE OR SUBSEQUENT SALE OF THE NR PRODUCT. EXCEPT FOR ANY LIABILITIES RELATING TO NEGLIGENCE, RECKLESSNESS, WILLFUL MISCONDUCT, OR BREACH OF THIS AGREEMENT BY SELLER (OR ITS AFFILIATES OR CONTRACTORS) BUYER ASSUMES ALL OTHER RISKS AND LIABILITIES FOR ANY LOSS, DAMAGE OR INJURY TO PERSONS OR PROPERTY RESULTING FROM THE USE OR SUBSEQUENT SALE OF THE NR PRODUCT, EITHER ALONE OR IN COMBINATION WITH OTHER INGREDIENTS; AND (b) BUYER WARRANTS TO SELLER THAT BUYER HAS SATISFIED ITSELF THAT THE NR PRODUCT AND THE PURPOSE FOR WHICH IT WILL BE USED AND/OR SOLD IS IN COMPLIANCE WITH THE APPLICABLE LAWS AND REGULATORY REQUIREMENTS OF THE RELEVANT COUNTRIES.

(ii) ALL CLAIMS MADE WITH RESPECT TO THE NR PRODUCT SHALL BE DEEMED WAIVED BY BUYER UNLESS MADE IN WRITING.

16.3 Buyer's Representations and Warranties. Buyer expressly warrants that it has all necessary legal capacity, right, power, and authority to enter into, execute, deliver, and be bound by this Agreement and that the execution and delivery of this Agreement and the performance by Buyer of Buyer's obligations under this Agreement, do not breach, and shall not result in a breach or violation of, any agreement to which Buyer is a party or by which Buyer is bound. Except as otherwise advised by Buyer in writing to ChromaDex on or prior to the Effective Date, there is no demand, claim, suit, action, arbitration, and/or other proceeding, whether pending or threatened (and for which any basis exists), that jeopardizes (or could jeopardize) Buyer's ability to enter into this Agreement or perform any of its obligations hereunder. Buyer further represents and warrants that Buyer and its Affiliates, shall assume full responsibility for all acts, errors, omissions, misrepresentations, and negligence by Buyer arising out of or relating to: (i) any and all uses of the rights granted herein, (subject to any ChromaDex liability specifically set forth in this Agreement or subject to Seller's breach of this Agreement, gross negligence or willful misconduct); and (ii) the development, manufacture, distribution, sale and advertisement of the Approved Products. Without in any way limiting the foregoing, Buyer represents and warrants that: (i) Buyer will obtain all regulatory compliance required by its actions under this Agreement; (ii) Buyer will conduct all actions under this Agreement in compliance with all applicable laws, rules, statutes, and regulations; and (iii) Buyer will ensure that none of the Approved Products violate any intellectual property or any other right of a third party.

17. LIMITATION OF LIABILITY.

EXCEPT FOR LIABILITY RESULTING FROM A PARTY'S INDEMNIFICATION OR CONFIDENTIALITY OBLIGATIONS OR MISAPPROPRIATION OF THE OTHER PARTY'S TRADE SECRETS AS SET FORTH IN SECTIONS 13 AND 26 OR INFRINGEMENT OF A PARTY'S INTELLECTUAL PROPERTY, IN NO EVENT WILL EITHER PARTY BE LIABLE FOR ANY LOST REVENUE OR LOST PROFITS OR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES ARISING UNDER THIS AGREEMENT OR OTHERWISE INCLUDING, WITHOUT LIMITATION, ANY BUSINESS INTERRUPTION OR DAMAGE TO BUSINESS REPUTATION, REGARDLESS OF THE THEORY UPON WHICH ANY CLAIM MAY BE BASED, INCLUDING ANY TORT OR STATUTORY CAUSES OF ACTION. EXCEPT FOR LIABILITY RESULTING FROM INDEMNIFICATION OR CONFIDENTIALITY OBLIGATIONS OR WILLFUL MISCONDUCT OR GROSS NEGLIGENCE, IN NO EVENT, SHALL SELLER'S AGGREGATE LIABILITY UNDER THIS AGREEMENT EXCEED THE AMOUNT OF TWO (2) TIMES THE SALES FEES PAYABLE TO SELLER BY BUYER HEREUNDER IN THE TWELVE (12) MONTH PERIOD IMMEDIATELY PRECEDING THE EVENT GIVING RISE TO SELLER'S LIABILITY. THE FOREGOING LIMITATIONS OF LIABILITY SHALL BE ENFORCED TO THE MAXIMUM EXTENT PERMITTED UNDER APPLICABLE LAW. BOTH PARTIES UNDERSTAND AND AGREE THAT THIS LIMITATION OF LIABILITY ALLOCATES RISK OF NONCONFORMING GOODS BETWEEN THE PARTIES AS AUTHORIZED BY THE UNIFORM COMMERCIAL CODE AND OTHER APPLICABLE LAW. THE PRICES SET FORTH HEREIN

REFLECT THIS ALLOCATION OF RISK AND THE LIMITATIONS OF LIABILITY, INCLUDING THE EXCLUSION OF SPECIAL, INDIRECT, CONSEQUENTIAL AND INCIDENTAL DAMAGES, IN THIS AGREEMENT.

18. Intellectual Property Rights.

18.1 Rights Retained by Seller. Except as otherwise explicitly set forth in this Agreement, the sale of NR Product covered by this Agreement shall not confer upon Buyer any license or right under any patents, copyrights, trade secrets or other proprietary information owned or controlled by Seller, or the right to otherwise utilize such proprietary information unless in strict accordance with all of the terms hereof, it being specifically understood and agreed that all such rights, including, without limitation, all intellectual property rights contained therein and pertaining thereto, are reserved exclusively to Seller. Seller hereby grants Buyer a fully paid-up, royalty-free, exclusive or co-exclusive (in accordance with Sections 3.3 and 3.4 of this Agreement), non-sublicensable (other than to its Affiliates) right and license to use all current and future intellectual property rights, clinical and non-clinical data, records, formulations, data on new therapeutic uses and know-how, in respect of NR Product (the "**NR Product IP Rights**").

(i) Patent Filing and Prosecution. From time to time throughout the Term, the Parties will regularly confer and review their solely and jointly owned and licensed existing, now pending, and being developed during the Term intellectual property rights that claim NR Product, products containing NR Product, or any uses thereof and together consider strategies that would enhance the value of those rights in the context of NR Product, products containing NR Product, or uses thereof.

(ii) Seller's New Intellectual Property Rights. Any new intellectual property rights created solely by ChromaDex during the Term hereof, will as between the Parties be owned solely and exclusively by ChromaDex. Any such new intellectual property rights and any new intellectual property rights licensed to ChromaDex during the Term, to the extent that they are directed to Medical Nutrition or Functional Food and Beverages products containing NR Product or uses thereof shall not, however, be used adversely against Buyer by ChromaDex in contradiction to the terms and conditions detailed herein.

(iii) Ownership of New Jointly Created Intellectual Property Rights. Any new intellectual property rights jointly created by ChromaDex and Buyer during the Term shall be jointly and equally owned by ChromaDex and Buyer (subject to the clarification in Section 18.1 (iv) below).

(iv) Buyer's New Intellectual Property Rights. Any new intellectual property rights created during the Term solely by Buyer shall be owned solely and exclusively by Buyer, including, for purposes of clarification, any new intellectual property rights in respect of NR Product in combination with other active ingredients or uses thereof and improved NR formulations (the "**New IP**"). Buyer agrees that it will not enforce its intellectual property rights in a legal proceeding against Seller for New IP pertaining or relating to the use or inclusion of NR in Functional Food and Beverages or Medical Nutrition that is necessary by Seller in order for Seller to achieve Technical Feasibility for a commercial launch of a Functional Food and Beverage or Medical Nutrition product, subject to Seller's compliance with the exclusivity and co-exclusivity rights granted to Buyer under this Agreement.

(v) No Right By Buyer to Challenge ChromaDex's Intellectual Property Rights. Buyer hereby acknowledges and agrees that Buyer will not subvert, diminish, in any way challenge in any forum, including, but not limited to, administrative proceedings, or assert any rights in the ChromaDex Trademarks, ChromaDex Trade Secrets, NR, NR Product, products containing NR Product, or uses thereof, or any other NR intellectual property, including ChromaDex owned or licensed patents or patent applications. If Buyer violates or otherwise breaches this non-challenge clause, Seller shall have the right to terminate Buyer's rights under this Agreement, provided however, in no event shall such termination diminish Seller's rights under this Section 18.1.

19. Waiver and Severability. No claim or right arising out of a breach of this Agreement can be discharged in whole or in part by a waiver or renunciation of the claim or right unless the waiver or renunciation is in writing signed by the aggrieved Party. If any term, covenant, warranty, remedy or condition of this Agreement, or the application thereof to any person or circumstance shall, to any extent, be held or deemed invalid, illegal or unenforceable, such term, covenant, warranty, remedy, or condition shall be conformed to a valid, legal, and enforceable provision that best accomplishes the original intent of the Parties, and the remainder of this Agreement or the application of such term, covenant or provision, to persons or circumstances other than those to which it is held invalid, illegal or unenforceable, shall not be affected thereby, and each remaining term, covenant or provision of this Agreement shall be deemed valid, legal and shall be enforced to the fullest extent permitted by law.

20. Force Majeure. A Party shall have no liability or obligation to the other party of any kind, including, but not limited to, any obligation to deliver NR Product or to make payment or accept delivery of NR Product, arising from any delay or failure to perform all or any part of this Agreement as a result of causes, conduct or occurrences beyond such Party's reasonable control, including, but not limited to, fire, flood, earthquake, lightning, storm, accidents, act of war, terrorism, civil disorder or disobedience, act of public enemies, , acts or failure to act of any state, federal or foreign governmental or regulatory authorities, labor disputes or strikes, (each a "Force Majeure Event"). During a Force Majeure Event Seller may allocate its available supply among its customers in a manner determined by Seller to be fair and reasonable.

21. Indemnification and Insurance.

21.1 To the fullest extent permitted by law, Buyer shall defend, indemnify and hold Seller and its affiliates, successors, heirs, and assigns and its and their respective officers, directors, employees, and agents (the "**Seller Indemnitees**"), harmless from any and all claims, damages, demands, suits, causes of action, controversy, judgements, liabilities, fines, regulatory actions, seizures of NR Product, losses, costs and expenses (including, but not limited to attorneys' fees, expert witness expenses and litigation expenses) (hereinafter "**Claim**"), arising from or in connection with any Claim asserted by a third party against Seller (i) for any damage, environmental liability, patent or intellectual property infringement caused by Buyer's use, modification or alteration of the NR Product, or any combination of the NR Product in connection with Buyer's product or any third party's product, or (ii) any injury, death, loss, property damage, delay or failure in delivery of Seller's NR Product or any other Claim for injuries or damage to the general public who consumed the Approved Product (unless due solely and exclusively to a Claim arising from the NR Product), or (iii) any alleged or actual act, error, omission, or negligence by Buyer or Buyer's Affiliates' agents, employees, or representatives in connection with the NR Product, Approved Products, or this Agreement, whether in tort, contract, breach of warranty or otherwise, relating to this Agreement, the business relationship between the Parties, Buyer's development, manufacture, distribution, promotion, and sale of the Approved Products, or Buyer's breach of this Agreement (including breach of Buyer's representations and warranties). Notwithstanding the foregoing, Buyer has no indemnity obligation to Seller to the extent that any Claims result directly from the negligence or willful misconduct of Seller or a material breach of this Agreement by Seller.

21.2 To the fullest extent permitted by law, Seller shall defend, indemnify and hold Buyer and its affiliates, successors, heirs, and assigns and its and their respective officers, directors, employees, and agents (the "**Buyer Indemnitees**") harmless from any and all Claims, arising from or in connection with any Claim asserted by a third party against Buyer for (i) any patent or other intellectual property right infringement in connection with the NR Product (provided that such alleged infringement does not arise from (A) the combination of the NR Product with other ingredients or (B) Buyer's intellectual property, including New IP), or (ii) any alleged or actual act, error, omission, or negligence by Seller or Seller's Affiliates' agents, employees, or representatives in connection with this Agreement whether in tort, contract, breach of warranty or otherwise, relating to this Agreement, the business relationship between the Parties, the NR Product provided hereunder, or Seller's breach of this Agreement, or (iii) any use of the ChromaDex

Trademarks. Notwithstanding the foregoing, Seller has no indemnity obligation to Buyer to the extent that any Claims result directly from the negligence or willful misconduct of Buyer or if such claims stem from Buyer's acts or use which is not in accordance with the rights and requirements of Buyer herein.

21.3 Indemnification Procedures. Each Party agrees to provide the other Party with prompt written notice of any claim, suit, action, demand, or judgment for which indemnification is sought under this Agreement. The indemnifying Party agrees, at its own expense, to provide attorneys reasonably acceptable to the indemnified Party to defend against any such claim. The indemnified Party shall cooperate fully with the indemnifying Party in such defense and will permit the indemnifying Party to conduct and control such defense and the disposition of such claim, suit, or action (including all decisions relative to litigation, appeal, and settlement); provided, however, that the indemnified Party shall have the right to retain its own counsel, at the expense of such indemnifying Party, if representation of such the indemnified Party by the counsel retained by the indemnifying Party would be inappropriate because of actual or potential differences in the interests of such indemnified Party and any other party represented by such counsel. The indemnifying Party agrees to keep the indemnified Party informed of the progress in the defense and disposition of such claim and to consult with the indemnified Party with regard to any proposed settlement.

21.4 Insurance. The Parties agree, for the Term of this Agreement, to maintain a program of insurance or self-insurance at levels sufficient to satisfy its obligations as set forth in this Agreement, which shall include commercial general liability insurance with limits of at least $[***] per occurrence and product liability insurance with an aggregate limit of at least $[***], and that such insurance coverage lists the other party hereto as additional insureds. Each party shall continue to maintain such insurance or self-insurance after the expiration or termination of this Agreement during any period in which Buyer or any Affiliate continues (i) to make, use, or sell an Approved Product under the terms of this Agreement and thereafter for a period of [***].

22. Relationship of the Parties. The relationship between Seller and Buyer shall be solely that of independent contractors and neither Party, its agents and employees, shall under no circumstances be deemed the employees, partners, joint venturers, franchisees, agents or representatives of the other Party. Neither Party shall represent itself as the agent or legal representative of the other Party for any purpose whatsoever or hold itself out contrary to the terms of this Section, and neither Party shall have the right to create or assume any obligation of any kind, express or implied, for or on behalf of the other Party in any way whatsoever.

23. Assignment and Modification. The rights and obligations of Buyer under this Agreement shall not be assignable or delegable without the prior written consent of Seller except in the event of assignment to an Affiliate of Buyer (which does not require consent of the Seller, but does require reasonable advance written notification). Any attempted assignment or delegation in violation of the foregoing shall be void. Seller may assign this Agreement, or delegate its duties hereunder, in whole or in part, without the written consent of the Buyer (but with advance written notification) (a "Transfer") to an Affiliate (other than in connection with a Change of Control). In addition, Seller may also Transfer this Agreement to an Affiliate or a third party in connection with a Change of Control (a "Transfer Event"), subject to the requirements set forth herein. If Seller is contemplating entering into a Transfer Event with a company that sells products to consumers directly competitive with the Approved Products in the then existing exclusive and co-exclusive Territories or any other then existing NHSc brands (a "Restricted Transferee"), Seller shall notify Buyer in advance in writing and Buyer shall have a [***] right of first negotiation from the date of such notification to negotiate in good faith terms by which Seller would complete a Transfer Event with Buyer. If after such [***] of good faith negotiations, no agreement is reached, Seller shall be entitled to Transfer this Agreement to a Restricted Transferee upon at least [***] written notice thereof to Buyer; provided that in such event Buyer shall have the right in its sole discretion to terminate this Agreement without penalty or liability. All other assignments or delegations by Seller require the advance written consent of Buyer, such consent not to be unreasonably withheld, conditioned, or delayed. This Agreement shall not be modified, altered or amended in any respect except by a writing signed by the Parties. Any variation, modification or addition to the terms set forth in this Agreement shall be considered a material modification and shall not be considered part of this Agreement unless it is amended in accordance with the foregoing.

24. Governing Law; Venue; Attorneys' Fees. This Agreement and all claims and causes of action shall be governed by and subject to the internal laws (exclusive of the conflicts of law provisions) and decisions of the courts of the State of Delaware. The sole and exclusive venue for all claims and causes of action between the Parties shall be the state or federal court located in the State of Delaware, provided that either Party may, at any time, seek injunctive or other equitable relief from any court of competent jurisdiction. The prevailing Party in any legal action shall be entitled to recover its reasonable attorneys' fees, in addition to any other remedies available to such Party at law or in equity.

25. Foreign Corrupt Practices Act. Each of the Parties (including its officers, directors, employees and agents) shall not pay, offer, promise or authorize the payment, directly or indirectly, of any monies or anything of value to any official or employee of any foreign government, including, without limitation, any government-owned or controlled entity, or of a public international organization, or any political party, party official, or candidate for political office, for the purpose of improperly inducing or rewarding favorable treatment or advantage in connection with this Agreement.

26. Confidentiality and Publicity. This Confidentiality and Publicity provision shall supersede in its entirety the Mutual Non-Disclosure Agreement between the Parties dated April 7, 2017. The Parties will be making certain general business information and know-how that is not generally known by the public available to the other Party, or a Party may have access to Confidential Information of the other Party orally and/or in writing. "Confidential Information" shall include, without limitation, any intellectual property, trade secrets, technical information, training materials, control documents, workflows and relevant documentation, materials, data, any other secret, sensitive or confidential material related to the business generally, business technology, business strategies, accounting, financial information, contracts, agreements, files, records, documents, techniques, expertise, marketing concepts, diagrams or concepts relating to product plans or designs, products, product specifications, systems, software code, formulae, practices, processes, customers, projects or information of any type whatsoever, in whatever form or media, whether or not marked as "confidential" or "proprietary," of a Party that is disclosed to or becomes known by the other Party, including all the records of the disclosing Party created, accessed, viewed, learned or obtained by the receiving Party pursuant to this Agreement and the transactions contemplated hereby and which is not generally known to the public or throughout the trade, or which could reasonably be expected to be valuable to the disclosing Party or its Affiliates or a competitor of any of the disclosing Party or its Affiliates. Confidential Information shall also include the terms of this Agreement. For purposes of clarification only and in no way intending to limit or otherwise revise the obligations in this Section, these obligations apply to Confidential Information disclosed to the other Party pursuant to this Agreement and the transactions contemplated hereby prior to the Effective Date. The Parties agree to refrain at all times from disclosing the other Party's Confidential Information to others or from using any such Confidential Information except for the benefit of the disclosing Party. The Parties further agree to refrain from any other acts that could tend to destroy the value of the Confidential Information to the disclosing Party.

Without in any way intending to limit the forgoing the Parties shall:

(a) not access or use Confidential Information other than as necessary to exercise its rights or perform its obligations under and in accordance with this Agreement;
(b) not disclose or permit access to Confidential Information;
(c) safeguard the Confidential Information from unauthorized use, access or disclosure using at least the degree of care it uses to protect its most/similarly sensitive information and in no event less than a reasonable degree of care;
(d) promptly notify the other Party in writing of any unauthorized use or disclosure of Confidential Information and use its best efforts and cooperate with such disclosing Party to prevent further unauthorized use or disclosure; and
(e) ensure its representatives' compliance with, and be responsible and liable for any of its representatives' non-compliance with, the terms of this Section.

Neither NHSc nor ChromaDex will, without the prior written consent of the other Party, issue any statement or communication to the public, to the press or any third party regarding the transactions detailed herein, or otherwise disclose to any third party the existence of this Agreement or any other communication between the parties with respect to the transactions detailed herein.

This Section shall survive expiration or termination of this Agreement.

27. Dispute Resolution.

27.1 Mandatory Procedures. The Parties agree that any dispute arising out of or relating to this Agreement shall be resolved solely by means of the procedures set forth in this Section, and that such procedures constitute legally binding obligations that are an essential provision of this Agreement. If either Party fails to observe the procedures of this Section, as may be modified by their prior written agreement, the other Party may bring an action for specific performance of these procedures in any court of competent jurisdiction.

27.2 Equitable Remedies. Although the procedures specified in this Section are the sole and exclusive procedures for the resolution of disputes arising out of or relating to this Agreement, either Party may seek a preliminary injunction or other provisional equitable relief pursuant to Section 30 if, in its reasonable judgment, such action is necessary to avoid irreparable harm to itself or to preserve its rights under this Agreement.

27.3 Dispute Resolution Procedures.

27.3.1 Exclusive Procedures. Any controversy, claim, or dispute arising out of or relating to this Agreement including, without limitation, the interpretation, performance, formation, validity, breach (including, without limitation, alleged violations of state or federal statutory or common law rights or duties) or enforcement of this Agreement, and further including any such controversy, claim, or dispute against or involving any officer, director, agent, employee, affiliate, successor, predecessor or assign of a party to this Agreement (collectively, a "Dispute") shall be resolved according to the procedures set forth in this Section which shall constitute the sole and exclusive Dispute resolution mechanism to resolve all Disputes and no other procedure may be used with the sole exception that a party need not comply with the terms herein before filing a claim for equitable relief. Each Party's promise to resolve all Disputes as set forth herein is given in consideration for the other Party's like promise.

27.3.2 Confidentiality. Without limiting the confidentiality obligations referred to elsewhere in this Agreement, the details and/or existence of any Dispute, any informal meetings, and any proceedings conducted hereunder, including without limitation any discovery taken in connection therewith, shall be kept strictly confidential and shall not be disclosed or discussed with any third party (excluding a party's attorneys, accountants, and other agents and representatives, as reasonably required in connection with any Dispute resolution procedure hereunder and provided that they sign a confidentiality agreement at least as restrictive as this Section if they are not attorneys), except as otherwise required by laws or rule of any securities exchange on which such party's securities are traded. All offers, promises, conduct, and statements, whether oral or written, made in the course of the resolution of any Dispute by the parties, their agents, employees, experts, and attorneys, shall be confidential, privileged, and inadmissible for any purpose, including impeachment, in any litigation, arbitration, or other proceeding, except that evidence that is otherwise admissible or discoverable shall not be rendered inadmissible or non-discoverable as a result of its use by either Party.

27.3.3 Good Faith. With regard to any Disputes between ChromaDex and Buyer, the Parties agree to work together in good faith to resolve all disputes promptly.

27.3.4 Informal Dispute Resolution. Either Party may demand, in writing, that each Party's management representatives meet within [***] at such place as ChromaDex may reasonably designate to resolve the Dispute. No third party shall have authority to consider or resolve any Dispute that is not first the subject of informal Dispute resolution pursuant to this Section. The Parties or their representatives with full authority to settle the Disputes at issue shall attend all meetings.

27.3.5 Mediation. If the Parties do not resolve the Dispute within [***] of the date of the first meeting between management representatives (the "Informal Dispute Resolution Deadline"), ChromaDex and NHSc agree to mediate the Dispute within [***] of the Informal Dispute Resolution Deadline and at such place in the State of Delaware as ChromaDex may designate with a mutually agreed upon mediator. If the Parties cannot agree upon the selection of a mediator, the mediator will be chosen from the list of certified mediators maintained by a court having jurisdiction over this Agreement within [***] of receiving such list. The Parties agree to continue to work in good faith to resolve the Dispute prior to the date upon which the mediation is scheduled to take place. If the Parties agree on a resolution for the Dispute prior to the scheduled mediation date, the mediation shall be cancelled. The Parties agree to share the cost of any independent mediator engaged to assist the Parties in resolving their differences. The mediator shall be a person familiar with complex business transactions and litigation in the nutraceutical industry, unless the Parties agree otherwise in writing. If either Party fails to mediate the Dispute within [***] of the Informal Dispute Resolution Deadline, such Party shall be deemed to have waived its right to demand mediation and the other Party may, in its sole discretion, proceed directly to arbitration.

27.3.6 Arbitration. In the event the Dispute is not resolved through mediation, then the Dispute shall be fully and finally adjudicated by binding arbitration to the fullest extent allowed by law, but only if the arbitration is properly commenced within the time allowed for similar legal action to be commenced in accordance with the applicable statute of limitations; otherwise, the Dispute is waived. Except as provided herein or by agreement of all parties, the arbitration shall be administered by JAMS or its successors ("JAMS") and shall be conducted according to the JAMS Comprehensive Arbitration Rules and Procedures in effect at the time the arbitration is initiated or, if JAMS is no longer in existence, then the arbitration shall be administered by the American Arbitration Association or its successor (the "AAA") and conducted in accordance with the AAA Commercial Arbitration Rules in effect at that time (the "Rules"). The arbitration shall be conducted as expeditiously and economically as reasonably practicable.

27.3.7 The arbitration shall be conducted by one arbitrator (the "Arbitrator"). Unless all parties to the arbitration agree, the Arbitrator shall be a lawyer admitted to practice in at least one (1) State of the United States and need not be on the roster of JAMS or the AAA. The Arbitrator shall be selected as follows: If all parties to the Dispute do not agree upon the Arbitrator within [***] after commencement of the arbitration, then any party may initiate the following selection process by written notice to each other party. Within [***] after such written notice, each side to the Dispute shall simultaneously transmit to each other side a list of four (4) persons qualified to serve as the Arbitrator (the "Candidates"). No party shall nominate a Candidate whom that party knows or reasonably believes to have a conflict of interest rendering the Candidate unable to serve as the Arbitrator. If any single Candidate appears on the list of each side then that person shall be appointed as the Arbitrator. If more than one Candidate appears on the list of each side, then one of those Candidates shall be selected randomly and that person shall be appointed as the Arbitrator. If no Candidate appears on the list of each side then, within [***] after the initial exchange of lists, each side may strike one Candidate from the list of each other side and rank all remaining Candidates in order of preference (with "1" being the most preferable Candidate), and the ranked lists shall be simultaneously exchanged. The Candidate with the lowest total number of points shall be appointed as the Arbitrator. In the event of a tie, one of the Candidates with the lowest total number of points shall be selected randomly and that person shall be appointed as the Arbitrator. If the person selected as the Arbitrator declines to serve or becomes unwilling or unable to serve after selection or appointment, or the administrator declines to appoint that person as the Arbitrator, then the Candidate with the next lowest total of points shall be appointed as the Arbitrator. If any party to the arbitration fails to timely participate in the foregoing selection process then the administrator shall select and appoint the Arbitrator pursuant to the Rules, except that each recalcitrant party shall be excluded from that selection process.

27.3.8 The Arbitrator shall entertain any demurrer, motion to strike, motion for judgment on the pleadings, motion for complete or partial summary judgment, motion for summary adjudication, or any other dispositive motion consistent with Delaware or United States federal rules of procedure, as applicable.

27.3.9 The exchange of information in the arbitration shall be governed by the Rules except as follows: (a) no side shall take the deposition of more than [***] individuals (including the use of corporate, "persons most knowledgeable," F.R.C.P. 30(b)(6), or similar deposition notices or devices) unless, upon a showing of extraordinary cause, the Arbitrator permits that side to take a limited number of additional depositions; (b) each side shall be entitled to the limited discovery of documents (including electronically stored information) which are directly relevant and material to the Dispute and are produced in response to a request that is narrowly tailored to minimize both the burden and expense of the responding person and the disclosure of confidential, sensitive or financial information; (c) no party shall propound interrogatories or requests for admission unless permitted by the Arbitrator upon a showing of extraordinary cause; and (d) upon the request of any party, the Arbitrator shall weigh the anticipated burden or expense of any requested discovery against its likely benefit, and shall impose any reasonable conditions on that discovery, including, without limitation, allocation of the expense of the discovery to the party seeking it.

27.3.10 The Arbitrator shall issue a written award supported by a statement of decision setting forth the Arbitrator's complete determination of the Dispute and the factual findings and legal conclusions relevant to it (the "Award"). The Award shall be final and binding on the Parties and, if the Award is not fully satisfied within [***] after its issuance, then judgment upon the Award may be entered by any court having jurisdiction thereof or having jurisdiction over the relevant Party or its assets. Each Party to this Agreement irrevocably submits to the personal jurisdiction and venue of a state or federal court of competent jurisdiction in Delaware for any purpose permitted herein.

27.3.11 The administrative costs of the arbitration, including fees of the Arbitrator, initially shall be split equally between the sides; provided, however, that the Arbitrator may, in his or her discretion, allocate such costs in favor of any prevailing party.

27.3.12 If all or any portion of a Dispute is held to be non-arbitrable then that Dispute (or portion thereof) shall be adjudicated by a single referee appointed by a state or federal court of competent jurisdiction in Delaware.

27.3.13 Notwithstanding any other provision of this Agreement including, without limitation, any other provision of this Section 27, the Parties may bring suit in any court of competent jurisdiction to enjoin any actual or threatened infringement of any intellectual property rights or any actual or threatened violation of any confidentiality or non-compete, non-solicitation, non-circumvention provisions of this Agreement.

27.4 Performance to Continue. Each Party shall continue to perform its undisputed obligations under this Agreement pending final resolution of any dispute arising out of or relating to this Agreement; provided, however, that a Party may suspend performance of its undisputed obligations during any period in which the other Party fails or refuses to perform its undisputed obligations. Nothing in this Section is intended to relieve Buyer from its obligation to make undisputed payments pursuant to the requirements of this Agreement.

27.5 Statute of Limitations. The Parties agree that all applicable statutes of limitation and time-based defenses (such as estoppel and laches) shall be tolled while the procedures set forth in Sections are pending. The Parties shall cooperate in taking any actions necessary to achieve this result.

28. Non-Solicitation, Non-Competition, and Non-Circumvention.

28.1 Upon a Triggering Event (defined below), during the Term and for a period of [***] after the Triggering Event, neither Buyer nor any of Buyer's subsidiaries, Affiliates, principals, agents, representatives, or employees (the "**Buyer Parties**") shall without the prior express written consent of ChromaDex directly or indirectly develop, manufacture, market, promote, sell or distribute Functional Food and Beverages or Medical Nutrition product using any NR, or NR Product. For purposes of this Agreement, a "**Triggering Event**" shall have occurred if (a) Seller terminates this Agreement for any reason permitted under this Agreement; (b) Buyer

terminates this Agreement pursuant to Section 15.3.1 or 15.3.2; or (c) Seller terminates any of Buyer's rights pursuant to the NA FF&B Termination, NA MN Termination, Annual Minimum Royalty Termination, or a Sub-Territory Termination, provided however in such event, Buyer's obligations contained in this paragraph shall only apply to the terminated Sub-Territory or Approved Product Category.

28.2 During the Term and for a period of [***] after the termination of this Agreement, neither Buyer nor any of the Buyer Parties shall, without the prior express written consent of the ChromaDex, directly or indirectly:

(a) Solicit or induce or attempt to solicit or induce any vendor, employee, sales representative, agent, or consultant of ChromaDex to terminate or adversely alter their relationship, engagement, employment, representation, or other association with ChromaDex; or
(b) Contract with, or otherwise become involved in any transaction with ChromaDex's manufacturers, without ChromaDex's explicit advance written permission (unless Buyer has a pre-existing relationship with such manufacturer prior to the Effective Date or wishes to enter into a relationship with such manufacturer for other products unrelated to the Approved Products, in which case the restrictions set forth herein shall not be applicable).
These obligations in this Section are in no way intended to revise or otherwise limit the other restrictions and obligations of Buyer herein, including, but not limited to, those regarding termination.

28.3 During the Term and for a period of [***] after the termination of this Agreement, ChromaDex shall not, without the prior express written consent of the Buyer, directly or indirectly solicit or induce or attempt to solicit (other than general solicitations for hire) or induce any vendor, employee, sales representative, agent, or consultant of Buyer to terminate or adversely alter their relationship, engagement, employment, representation, or other association with Buyer.

29. Notices. Any demand upon or notice to a Party hereunder shall be effective when delivered by hand or when properly deposited in the mails postage prepaid, or sent by electronic facsimile or electronic mail transmission with receipt acknowledged, or delivered to an overnight courier, in each case addressed to the Party at the address shown below or such other address as the Parties may advise in advance in writing.

If to Seller:
ChromaDex, Inc.
10005 Muirlands Blvd., Suite G
Irvine, CA 92618
Attention: Legal Department
Fax: 949-419-0294

With a Copy to:
ChromaDex Corporation
10900 Wilshire Blvd.,
Suite 650
Los Angeles, CA 90024
Fax: 949-600-8923
Attn: General Counsel

With Another Copy to:
Nolan Heimann
16133 Ventura Blvd.,
Suite 820
Encino, California 91436
Fax: 818-574-5689
Attn: ChromaDex

If to Buyer:
Avenue Nestle 55
1800 Vevey
Switzerland
Email: [***]
Attn: General Counsel, Nestlé Health Science

30. **Injunctive Relief**. In addition to all other remedies that ChromaDex may have hereunder, including, without limitation, a claim of money damages, Buyer acknowledges that (a) its failure (except as otherwise provided herein) to cease the manufacture, sale, distribution, advertising, or promotion of the Approved Products covered by this Agreement or any class or category thereof at the termination or expiration of this Agreement; (b) its threatened or actual unauthorized use of the rights granted hereunder, whether in whole or in part; (c) its threatened or actual breach of the confidentiality provisions in the ChromaDex and NHSc NDA referred to herein; or (d) its threatened or actual breach of any other material term of this Agreement may result in immediate and irreparable damage to ChromaDex and to the rights of any subsequent licensee. Buyer acknowledges and admits that there is no adequate remedy at law for such failures listed in this Section and that in the event of such threatened or actual failure, ChromaDex shall be entitled to equitable relief by way of temporary and permanent injunctions and such other and further relief as any court of competent jurisdiction may deem just and proper.

In addition to all other remedies that Buyer may have hereunder, including, without limitation, a claim of money damages, Seller acknowledges that; (a) its threatened or actual breach of the confidentiality provisions contained in Section 26 herein; or (b) its violation of Buyer's exclusivity or Buyer's Co-Exclusivity (as set forth in Sections 3.3 and 3.4, respectively) still in effect, may result in immediate and irreparable damage to Buyer. Seller acknowledges and admits that there is no adequate remedy at law for the violations set forth in the preceding sentence and that in the event of such violation, Buyer shall be entitled to seek equitable relief by way of temporary and permanent injunctions and such other and further relief as any court of competent jurisdiction may deem just and proper.

31. **Binding Effect**. This Agreement shall be binding upon and inure to the benefit of the Parties and their respective permitted successors and assigns.

32. **Section and Other Headings; Number; Construction of Language**. The section and other headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement. Words used in this Agreement in the singular number shall be held to include the plural, and vice versa, unless the context requires otherwise. The language in all parts of this Agreement is intended by the parties to be interpreted simply, according to its fair meaning, and not strictly for or against ChromaDex or Buyer regardless of which party drafted this Agreement. The parties hereby agree and acknowledge that this Agreement is a document negotiated by the parties, which are sophisticated entities and fully understand the meaning of the terms and conditions of this Agreement.

33. **Attorney Representation**. In the negotiation, preparation and execution of this Agreement, each Party has been represented by, or has been afforded the opportunity to consult with an attorney of such Party's own choosing prior to the execution of this Agreement and has been advised that it is in such Party's best interest to do so. The Parties have read this Agreement in its entirety and fully understand its terms and provisions. The Parties have executed this Agreement freely, voluntarily and without any coercion whatsoever, they accept all terms, conditions and provisions hereof. The Parties further agree that any rule or construction to the effect that ambiguities are to be resolved against the drafting Party shall not apply in the interpretation of this Agreement or any amendments.

34. **Entire Agreement**. This Agreement and any documents referred to herein and any exhibits attached hereto contain and constitute the complete agreement between the Parties with respect to the subject matter hereof. All previous or contemporaneous agreements, representations, warranties, promises and conditions relating to the subject matter of this Agreement are superseded by this Agreement.

35. **Expenses**. Except as otherwise expressly provided in this Agreement, whether or not the transactions contemplated hereby are consummated, each Party shall pay its own costs and expenses incurred in connection with the negotiation, execution and closing of this Agreement and the transactions contemplated herein.

36. **Survival**. All obligations that by their nature should survive the termination of this Agreement shall so survive.

37. **Counterparts**. This Agreement may be executed in counterparts, each of shall constitute an original, whether actual original or a copy, and all of which shall constitute one and the same instrument.

[THE REMAINDER OF THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY – SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties have caused this Supply Agreement to be executed by their duly authorized representatives.

Buyer	Seller
NESTEC Ltd.	**ChromaDex, Inc.**
Signature: /s/ Claudio Kuoni	Signature: /s/ Robert Fried
Name: Claudio Kuoni	Name: Robert Fried
Title General Counsel	Title: President & CEO
Date: 19 December 2018	Date: December 19, 2018

Exhibit A – ChromaDex Brand Usage Guidelines

[***]

Exhibit B - NHSc Brands

[***]

Exhibit C – NR Product Specification

[***]

Exhibit D – Prior Existing Obligations

[***]

Exhibit E – Intentionally Left Blank

Exhibit F – Applicable Issued Patents and Applicable Filed Patents for the NR Product

[***]

Exhibit G - Quality Standards

[***]

SECOND MODIFICATION TO BUSINESS FINANCING AGREEMENT

This Second Modification to Business Financing Agreement (this "**Amendment**") is entered into as of November 10, 2021, by and among WESTERN ALLIANCE BANK, an Arizona corporation ("**Lender**"), CHROMADEX CORPORATION, a Delaware corporation, and CHROMADEX, INC., a California corporation, CHROMADEX ANALYTICS, INC., a Nevada corporation (individually and collectively, "**Borrower**").

1. DESCRIPTION OF EXISTING INDEBTEDNESS: Among other indebtedness which may be owing by Borrower to Lender, Borrower is indebted to Lender pursuant to, among other documents, a Business Financing Agreement, dated November 12, 2019, by and among Borrower, HEALTHSPAN RESEARCH LLC, a Delaware limited liability company ("**Released Borrower**") and Lender, as may be amended from time to time (the "**Business Financing Agreement**"). Pursuant to that certain Consent Agreement dated January 14, 2021, by and among Borrower, Lender, and Released Borrower, Released Borrower was released by Lender from its Obligations under the Business Financing Agreement and the other Loan Documents. Capitalized terms used without definition herein shall have the meanings assigned to them in the Business Financing Agreement.

Hereinafter, all indebtedness owing by Borrower to Lender shall be referred to as the "Indebtedness" and the Business Financing Agreement and any and all other documents executed by Borrower in favor of Lender shall be referred to as the "**Existing Documents**".

2. DESCRIPTION OF CHANGE IN TERMS.

A. The following definition set forth in Section 12.1 of the Business Financing Agreement is hereby amended by deleting it in its entirety and replacing it with the following:

> "**Maturity Date**" means December 12, 2021 or such earlier date as Lender shall have declared the Obligations immediately due and payable pursuant to Section 7.2.

3. CONSISTENT CHANGES. The Existing Documents are each hereby amended wherever necessary to reflect the changes described above.

4. NO DEFENSES OF BORROWER/GENERAL RELEASE. Borrower agrees that, as of this date, it has no defenses against the obligations to pay any amounts under the Indebtedness. Each Borrower (each, a "**Releasing Party**") acknowledges that Lender would not enter into this Amendment without Releasing Party's assurance that it has no claims against Lender or any of Lender's officers, directors, employees or agents. Except for the obligations arising hereafter under this Amendment, each Releasing Party releases Lender, and each of Lender's and entity's officers, directors and employees from any known or unknown claims that Releasing Party now has against Lender of any nature, including any claims that Releasing Party, its successors, counsel, and advisors may in the future discover they would have now had if they had known facts not now known to them, whether founded in contract, in tort or pursuant to any other theory of liability, including but not limited to any claims arising out of or related to the Agreement or the transactions contemplated thereby. Releasing Party waives the provisions of California Civil Code section 1542, which states:

> A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR OR RELEASING PARTY DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE AND THAT, IF KNOWN BY HIM OR HER, MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR OR RELEASED PARTY.

The provisions, waivers and releases set forth in this section are binding upon each Releasing Party and its shareholders, agents, employees, assigns and successors in interest. The provisions, waivers and releases of this section shall inure to the benefit of Lender and its agents, employees, officers, directors, assigns and successors in interest. The provisions of this section shall survive payment in full of the Obligations, full performance of all the terms of this Amendment and the Business Financing Agreement, and/or Lender's actions to exercise any remedy available under the Business Financing Agreement or otherwise.

5. CONTINUING VALIDITY. Borrower understands and agrees that in modifying the existing Indebtedness, Lender is relying upon Borrower's representations, warranties, and agreements, as set forth in the Existing Documents. Except as expressly modified pursuant to this Amendment, the terms of the Existing Documents remain unchanged and in full force and effect. Lender's agreement to modifications to the existing Indebtedness pursuant to this Amendment in no way shall obligate Lender to make any future modifications to the Indebtedness. Nothing in this Amendment shall constitute a satisfaction of the Indebtedness. It is the intention of Lender and Borrower to retain as liable parties all makers and endorsers of Existing Documents, unless the party is expressly released by Lender in writing. No maker, endorser, or guarantor will be released by virtue of this Amendment. The terms of this paragraph apply not only to this Amendment, but also to any subsequent Business Financing Agreement modifications.

6. NOTICE OF FINAL AGREEMENT. BY SIGNING THIS DOCUMENT EACH PARTY REPRESENTS AND AGREES THAT: (A) THIS WRITTEN AGREEMENT REPRESENTS THE FINAL AGREEMENT BETWEEN THE PARTIES, (B) THERE ARE NO UNWRITTEN ORAL AGREEMENTS BETWEEN THE PARTIES, AND (C) THIS WRITTEN AGREEMENT MAY NOT BE CONTRADICTED BY EVIDENCE OF ANY PRIOR, CONTEMPORANEOUS, OR SUBSEQUENT ORAL AGREEMENTS OR UNDERSTANDINGS OF THE PARTIES.

7. COUNTERSIGNATURE. This Amendment shall become effective only when executed by Lender and Borrower.

[Signature Page Follows].

IN WITNESS WHEREOF, Borrower and Lender have executed this Agreement on the day and year above written.

BORROWER:

CHROMADEX CORPORATION, A DELAWARE CORPORATION

By: /s/ Kevin Farr
Name: Kevin Farr
Title: Chief Financial Officer

CHROMADEX, INC., A CALIFORNIA CORPORATION

By: /s/ Kevin Farr
Name: Kevin Farr
Title: Chief Financial Officer

CHROMADEX ANALYTICS, INC., A NEVADA CORPORATION

By: /s/ Kevin Farr
Name: Kevin Farr
Title: Chief Financial Officer

Address for Notices:
c/o Chromadex Corporation
10900 Wilshire Blvd., Suite 650
Los Angeles, California 90024
Email:
Attn:

LENDER:

WESTERN ALLIANCE BANK, AN ARIZONA CORPORATION

By: /s/ Victor Le
Name: Vistor Le
Title: Senior Director

Address for Notices:
WESTERN ALLIANCE BANK
600 Anton Blvd., Suite 150
Costa Mesa, CA 92626
Email: Steven Ogus
Attn:

OFFICE LEASE AGREEMENT CALIFORNIA

FLIGHT AT TUSTIN LEGACY TUSTIN, CA

THIS OFFICE LEASE AGREEMENT (the "**Lease**") is made and entered into as of the 24th day of November, 2021, by and between **FLIGHT PHASE I OWNER, LLC,** a Delaware limited liability company ("**Landlord**") and **CHROMADEX CORPORATION**, a Delaware corporation ("**Tenant**"). Pursuant to the terms of this Lease, Landlord agrees to lease the Premises (hereinafter defined) to Tenant and Tenant agrees to lease the Premises from Landlord. The Lease includes the following exhibits and attachments: Exhibit A (Outline and Location of Premises), Exhibit B (Expenses and Taxes), Exhibit C (Work Letter), Exhibit D (Building Rules and Regulations), Exhibit E (Additional Provisions), Exhibit F (Intentionally Omitted), Exhibit G (Statement of Tenant Regarding Lease Commencement), Rider No. 1 (Extension Option Rider), Rider No. 2 (Fair Market Rental Rate), and Rider No. 3 (Options in General).

1. **Basic Lease Information**.

1.01 "**Building**" shall mean the building located at 1735 Flight Way, Tustin, California, which Building is included within the multi-building office and retail project commonly known as FLIGHT at Tustin Legacy (the "**Project**"). As used herein, "**Rentable Square Footage of the Building"** is deemed to be 93,256 rentable square feet. "**Property**" shall mean the Building and the parcel(s) of land on which it is located. "**Common Areas**" shall mean the portion of the Building and Property that are designated by Landlord for the common use of tenants as further described in Section 2.01.

1.02 "**Premises**" shall mean the area shown on Exhibit A to this Lease. The Premises are located on the second (2nd) floor of the Building and known as Suite 200. The "**Rentable Square Footage of the Premises**" is deemed to be 7,799 square feet.

1.03 "**Base Rent**":

Period or Months of Term	Annual Base Rent	Monthly Base Rent	Monthly Base Rent per Rentable Square Foot of the Premises
1-12	$308,840.40	$25,736.70*	$3.30
13-24	$318,199.20	$26,516.60*	$3.40
25-36	$327,558.00	$27,296.50	$3.50
37-48	$337,852.68	$28,154.39	$3.61
49-60	$347,211.48	$28,934.29	$3.71
61-72	$358,442.04	$29,870.17	$3.83
*Subject to abatement as set forth in Exhibit E of the Lease.			

1.04 "**Tenant's Pro Rata Share**": 8.36% of the Building (7,799 square feet within the Premises / 93,256 square feet within the Building) and 1.71% of the Project (7,799 square feet within the Premises / 456,740 modified Project square feet excluding the "**Food Hall**" and Project conference center). Tenant shall pay Tenant's Pro Rata Share of Taxes and Expenses in accordance with Exhibit B of this Lease.

1.05 Intentionally Omitted.

1.06 "**Term**": A period of seventy-two (72) full calendar months. The Term shall commence on July 1, 2022 (the "**Commencement Date**") and shall expire on June 30, 2028 (the "**Expiration Date**"), subject to earlier termination, if applicable, in accordance with the terms of this Lease. Tenant shall have one (1) option to extend the Term for an additional period of sixty (60) months, pursuant to and in accordance with the terms and conditions of Rider No. 1, Rider No. 2 and Rider No. 3 attached hereto.

1.07 "**Security Deposit**": $41,114.38.

1.08 "**Brokers**": CBRE on behalf of Landlord and Cushman & Wakefield on behalf of Tenant.

1.09 "**Permitted Use**": General and administrative office purposes, subject to the terms and conditions contained in that certain Quitclaim Deed for Tustin Legacy Cornerstone I – Phase I and Covenants, Conditions and Restrictions Including Environmental Restriction Pursuant to Civil Code Section 1471 dated as of June 29, 2017, that certain Declaration of Special Restrictions for Cornerstone I (Phase 1 Parcel) dated as of June 29, 2017 and that certain Declaration of Covenants, Conditions, Restrictions and Establishment of Easements for The Flight at Tustin Legacy dated as of June 29, 2017, recorded against the Property, as the same may be amended from time to time (collectively, the "**Governing Documents**").

1.10 "**Notice Addresses**":

Landlord: **Tenant:**

FLIGHT PHASE I OWNER, LLC
c/o LPC West, Inc.
19600 Fairchild Road, Suite 100
Irvine, CA 92612

Attention: Property Manager, FLIGHT With a copy to:

FLIGHT PHASE I OWNER, LLC
c/o Alcion Ventures L.P. 53 State Street, 37th Floor Suite 3702
Boston, Massachusetts 02109 Attn: Eugene F. DelFavero

CHROMADEX CORPORATION
10900 Wilshire Boulevard, Suite 600 Los Angeles, CA 90024

With a copy to:

Address for payment of Rent:

FLIGHT PHASE I OWNER, LLC
c/o LPC West, Inc.
19600 Fairchild Road, Suite 100
Irvine, CA 92612
Attention: Property Manager, FLIGHT

1.11 "**Landlord Work**" means the work that Landlord is obligated to perform in the Premises pursuant to the separate work letter agreement (the "**Work Letter**") attached to this Lease as Exhibit C.

1.12 "**Parking**": Tenant shall purchase a total of thirty-one (31) parking passes for unreserved parking spaces. The monthly cost during the Term for parking shall be as follows (collectively, the "**Parking Fee**"): (a) for unreserved spaces, (i) $0.00 for the first thirty-six (36) months of the initial Term; and (ii) $50.00 per unreserved parking space per month thereafter; and (b) for reserved spaces rented by Tenant as provided in this Section 1.12 below, $100.00 per reserved parking space per month. Such parking spaces shall also be subject to the payment of Expenses attributable to the parking areas and to the provisions set forth in Section 29. During the Term of this Lease, Tenant shall have the right to permanently convert on a one-to-one basis up to three (3) of its unreserved spaces to reserved spaces at the rate provided above for reserved spaces in a location mutually agreed upon in good faith by Landlord and Tenant. Tenant agrees to pay for such parking passes as Additional Rent (defined in Section 3) under this Lease. Except as set forth in this Section 1.12 and Section 29 herein, the purchase of such parking passes shall be subject to the Rules and Regulations as set forth in Exhibit D to the Lease.

1.13 "**Guarantor**": None.

2. **Commencement Date; Possession**.

2.01 Landlord hereby leases the Premises to Tenant, and Tenant hereby leases the Premises from Landlord, upon all the terms, covenants and conditions contained in the Lease. Tenant acknowledges that Landlord has not made any representation or warranty with respect to the condition of the Premises, the Building or the Project with respect to the suitability or fitness of any of the same for the conduct of Tenant's Permitted Use, its business or for any other purpose. The "**Rentable Area**" or "rentable square feet" and "**Usable Area**" or "usable square feet" shall be calculated by Landlord provided, however, that in any case the Rentable Area of the Building (and the applicable buildings of the Project) shall include all of, and, with respect to the Building, the Rentable Area of the Premises shall include a portion of, the square footage of the ground floor common areas located within the Building and the other applicable building(s) of the Project, respectively, and the common area and occupied space of the portion of the Project dedicated to the service of the Building or such other building(s) of the Project, as the case may be. "**Common Areas**" shall mean the lobby, plaza and sidewalk areas, accessways, Parking Facilities, and the area on individual floors in the Building or other building(s) of the Project, as applicable, whether indoor or outdoor, devoted to corridors, fire vestibules, elevators, foyers, lobbies, electric and telephone closets, restrooms, mechanical rooms, janitor's closets, and other similar facilities for the benefit of all tenants and invitees and shall also mean those areas of the Building or other building(s) of the Project, as applicable, devoted to mechanical and service rooms servicing the Building or other building(s) of the Project, as applicable. Tenant acknowledges that it has reviewed the detail of the Rentable Area and Usable Area of the Premises prior to execution of this Lease and understands and agrees to the methodology. The Common Areas shall be subject to the exclusive management and control of Landlord, and Tenant shall comply with all Rules and Regulations pertaining to the Common Areas. Landlord shall have the right from time to time to designate, and in its reasonable discretion, relocate and limit the use of particular areas or portions of the Common Areas; provided Landlord shall use commercially reasonable efforts to notify Tenant at least five (5) calendar days in advance of any such material relocation or limitation. Landlord shall also have the right, in its reasonable discretion, to close all or any portion of the Common Areas as may, in the reasonable discretion of Landlord, be necessary to prevent a dedication thereof or the accrual of any rights in any person, provided Landlord shall use commercially reasonable efforts to notify Tenant at least five (5) calendar days in advance of any such material closure. Notwithstanding anything to the contrary in this Section 2.01, any such relocation or limitation of use of any Common Areas shall not: (a) have a material adverse effect upon the access to and/or use by Tenant, or Tenant's suppliers, employees, agents and customers (collectively, "**Tenant's Invitees**") of the Premises or vehicular and/or pedestrian access to the Premises, (b) be materially inconsistent with the rights and obligations of Landlord and Tenant under this Lease; and/or (c) materially increase Tenant's cost of operating its business in the Premises.

2.02 Subject to Landlord performing any required Landlord Work, the Premises are accepted by Tenant in "**AS IS**" condition and configuration without any representations or warranties by Landlord.

2.03 Within 30 calendar days after the Commencement Date, Tenant shall return an executed Statement of Tenant Regarding Lease Commencement in the form attached hereto as Exhibit G. The Statement of Tenant Regarding Lease Commencement shall be binding upon Tenant unless Tenant objects thereto in writing within such 30 day period.

3. **Rent**. Upon execution of this Lease, Tenant shall pay to Landlord the sum of $33,243.24 constituting Base Rent and the estimated Tenant's Pro Rata Share of Taxes and Expenses due and payable by Tenant for the first full calendar month of the Term for which Rent is payable hereunder. Except as otherwise set forth in this Lease, Tenant shall pay Landlord, without any setoff or deduction all Base Rent and Additional Rent for the Term (collectively referred to as "**Rent**") when due. "**Additional Rent**" means all sums (exclusive of Base Rent) that Tenant is required to pay Landlord under this Lease, including, without limitation, payments for insurance, repairs and parking and Tenant's Pro Rata Share of Taxes and Expenses. Tenant shall pay and be liable for all rental, sales and use taxes (but excluding income taxes), if any, imposed upon or measured by Rent. Base Rent and recurring monthly charges of Additional Rent shall be due and payable in advance on the first day of each calendar month without notice or demand. All other items of Rent shall be due and payable by Tenant on or before 30 calendar days after billing by Landlord. All Rent payable by Tenant hereunder shall be paid to Landlord in lawful money of the United States of America, by check made payable to the entity constituting Landlord hereunder and sent to the address designated in Section 1.10 of the Basic Lease Information, or to such other location or address as Landlord may designate from time to time. Tenant shall pay Landlord a one time administration fee equal to 5% of any Rent that is past due Rent. In addition, Rent that is five (5) calendar days past due shall accrue interest until paid at 12% per annum (or the maximum rate legally permissible, whichever is less). Notwithstanding the foregoing, Tenant shall be entitled to notice and the expiration of a five (5) day cure period prior to imposition of any late charge or interest charge under this Section 3 one (1) time per calendar year; after such written notice has been provided to Tenant in a calendar year, Tenant shall not be entitled to any further notice prior to imposition of a late charge or interest under this Section 3 in such calendar year. Rent for any partial month during the Term shall be prorated. No endorsement or statement on a check or letter accompanying payment shall be considered an accord and satisfaction. Tenant's covenant to pay Rent is independent of every other covenant in this Lease. Further, in the event any check submitted by Tenant is returned by reason of "non sufficient funds", Tenant shall pay to Landlord an "NSF Fee" at Landlord's standard rate then in effect.

4. **Compliance with Laws; Use**. The Premises shall be used for the Permitted Use and for no other use whatsoever. In no event shall the Premises be used as a co-working center, executive office suites or a flexible workplace center. Tenant shall comply with all statutes, codes, ordinances, orders, rules and regulations of any municipal or governmental entity (collectively, "**Laws**"), regarding the operation of Tenant's business and the use, condition, configuration and occupancy of the Premises. Pursuant to Section 1938 of the California Civil Code, Landlord hereby advises Tenant that the Premises has not undergone an inspection by a certified access specialist (a "**CASp**") and no representations are made with respect to compliance with accessibility standards. Further, pursuant to Section 1938 of the California Civil Code, Landlord notifies Tenant of the following: "A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises." Therefore and notwithstanding anything to the contrary contained in this Lease, Landlord and Tenant agree that (a) Tenant may, at its option and at its sole cost, cause a CASp to inspect the Premises and determine whether the Premises complies with all of the applicable construction-related accessibility standards under state law, (b) the parties shall mutually coordinate and reasonably approve of the timing of any such CASp inspection so that Landlord may, at its option, have a representative present during such inspection, and (c) Tenant shall be solely responsible for the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the Premises. Tenant shall comply with the Rules and Regulations of the Building attached as Exhibit D and such other commercially reasonable rules and regulations adopted by Landlord from time to time upon at least thirty (30) calendar days prior written notice to Tenant. Landlord shall modify and enforce the Rules and Regulations in a uniform and non-discriminatory manner with respect to all tenants and occupants of the Project, and further provided any modification of the Rules and Regulations shall not materially increase Tenant's obligations or be materially inconsistent with Tenant's rights under this Lease.

5. **Security Deposit**. The Security Deposit shall be delivered to Landlord upon the execution of this Lease by Tenant and held by Landlord without liability for interest (unless required by Laws) as security for the performance of Tenant's obligations. The Security Deposit is not an advance payment of Rent or a measure of damages. Landlord may use all or a portion of the Security Deposit to satisfy past due Rent, to cure any Default (defined in Section 18) by Tenant, or to compensate Landlord for any other loss or damage Landlord may suffer by reason of Tenant's Default. If Landlord uses any portion of the Security Deposit, Tenant shall on demand restore the Security Deposit to its original amount, and Tenant's failure to do so shall be a Default under this Lease. Landlord shall return any unapplied portion of the Security Deposit to Tenant within 45 calendar days after the latest to occur of: (a) payment of the final Rent due from Tenant; or (b) the Expiration Date; or (c) the date Tenant surrenders the Premises to Landlord in compliance with Section 27. Landlord shall not be required to keep the Security Deposit separate from its other accounts. Tenant hereby waives the provisions of Section 1950.7 of the California Civil Code, or any successor Laws now or hereafter in effect.

6. **Building Services**. Landlord shall furnish Tenant with the following services: (a) water service for use in the base building lavatories; (b) customary heat and air conditioning ("**HVAC**") in season from 8:00 A.M. to 6:00 P.M., Monday through Friday and upon request by Tenant given prior to 4:00 P.M. on Friday from 8:00 A.M. to 12:00 P.M. Saturday (excepting nationally recognized holidays, which currently include New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day) (collectively, the "**Building Service Hours**"), and Tenant shall have the right to receive HVAC service during hours other than the Building Service Hours by paying Landlord's charge for additional HVAC service, which charge shall be equal to Landlord's actual costs for utilities consumed plus a

standard administrative and depreciation charge with a two (2) hour minimum and providing such reasonable prior notice as is specified by Landlord; (c) standard janitor service;(d) passenger elevator service; and (e) Building standard electricity for general office purposes, not to exceed five (5) watts connected load per rentable square foot of the Premises calculated on a monthly basis for Building Service Hours. Electricity used by Tenant in the Premises shall, at Landlord's option, be paid for by Tenant either: (i) through inclusion in Expenses (except as provided for excess usage); (ii) by a separate charge payable by Tenant to Landlord; or (iii) by separate charge billed by the applicable utility company. Landlord's failure to furnish, or any interruption, diminishment or termination of, services due to the application of Laws, the failure of any equipment, the performance of repairs, improvements or alterations, utility interruptions or the occurrence of an event of Force Majeure (defined in Section 28.02) shall not render Landlord liable to Tenant, constitute a constructive eviction of Tenant, give rise to an abatement of Rent, nor relieve Tenant from the obligation to fulfill any covenant or agreement.

If Tenant uses water, electricity, heat or air conditioning in excess of the Building standard level of services supplied by Landlord pursuant to the terms hereof, or if Tenant's consumption of electricity shall exceed Building standard electrical consumption as referenced in subsection 6(e) above, Tenant shall pay to Landlord, upon actual billing, the cost incurred for such excess consumption, the cost of the installation, operation, and maintenance of equipment which is installed in order to supply such excess consumption, and the cost of the increased wear and tear on existing equipment caused by such excess consumption. In order to measure the amount of electricity provided to the Premises, Landlord may, at its sole discretion and at Landlord's sole cost and expense, install devices to separately meter Tenant's electrical consumption. Further, Tenant shall not install any supplemental or stand alone HVAC or cooling equipment or systems without Landlord's prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed; provided, however, Landlord may condition such consent upon the installation of separate meters to measure any related consumption of chilled water or electricity and compliance with Landlord's design criteria so as not to affect base Building systems or equipment. Tenant's use of electricity shall never exceed the capacity of the feeders to the Property or the risers or wiring installation, and Tenant shall not install or use or permit the installation or use of any computer or electronic data processing equipment in the Premises that will result in excess utilities consumption, without the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed. If Tenant desires to use heat, ventilation or air conditioning during hours other than those for which Landlord is obligated to supply such utilities pursuant to the terms of this Section 6, Tenant shall give Landlord such prior notice, if any, as Landlord shall from time to time establish as appropriate, of Tenant's desired use in order to supply such utilities, and Landlord shall supply such utilities to Tenant at such hourly cost to Tenant (which shall be treated as Additional Rent) as Landlord shall from time to time establish. The current hourly cost, which is subject to increase in Landlord's reasonable discretion, is Sixty-Five Dollars ($65.00) per hour per zone within the Premises.

During the Term of this Lease, or any extensions thereof, as a benefit to the tenants of the Property, Landlord may elect to provide certain amenities at the Project for use by tenants and their employees (with any such offerings collectively being referred to as the "**Amenities**"). For example, Amenities may include a conference center (the "**Conference Center**"), a fitness center (the "**Fitness Center**") and food service. Landlord shall have the right (a) to determine and/or alter the size and location of such Amenities and the type of equipment provided, (b) to include in Expenses all management, operation, maintenance, repair and equipment replacement costs related to the Amenities (including, without limitation, a market rent amount for the rentable square footage of the Amenities), and (c) to include the rentable square footage of the Amenities in the common area "add on" factor for all measurement purposes for the Project. Tenant shall pay Landlord's regular charge for use of the Conference Center and for the cost of any special services related to Tenant's use of the Amenities, e.g., long-distance phone calls, catering, set up or take down and cleaning costs, after-hours HVAC service (with a two (2) hour minimum), personal training services, etc. ("**Special Amenity Services**"). Tenant must schedule use of the Conference Center with Landlord in advance, and Tenant's use thereof shall be subject to availability and governed by Landlord's commercially reasonable rules and regulations for the Conference Center that are then in effect. Costs to maintain and operate the Amenities shall be included in Expenses. Tenant acknowledges and agrees that Tenant's and any Tenant Related Party's use of the Amenities is voluntary and, in consideration of the use of the Amenities, shall be undertaken by Tenant and such Tenant Related Party at its sole risk. Neither Landlord nor Landlord's officers, directors, managers, servants, agents and/or employees (collectively, the "**Released Parties**") shall be liable for any claims, demands, injuries, damages, actions or causes of action whatsoever arising out of or connected with Tenant's and any Tenant Related Party's use of the Amenities and their facilities and services. TO THE EXTENT PERMITTED BY APPLICABLE LAWS, TENANT DOES HEREBY EXPRESSLY FOREVER WAIVE, RELEASE AND DISCHARGE THE RELEASED PARTIES FROM ANY AND ALL LIABILITY ARISING FROM ALL SUCH CLAIMS, DEMANDS, INJURIES, DAMAGES, ACTIONS AND/OR CAUSES OF ACTION, INCLUDING LIABILITY FROM ALL ACTS OF ACTIVE OR PASSIVE NEGLIGENCE, INCLUDING SOLE OR GROSS NEGLIGENCE, ON THE PART OF THE RELEASED PARTIES.
Further, as a condition to each person's use of any Fitness Center, Tenant shall cause each person using the Fitness Center to execute a release on Landlord's standard form prior to such party's use of the Fitness Center. The waivers contained in this paragraph shall survive the expiration or earlier termination of this Lease.

7. **Landlord's Reservation of Rights**. Provided the rights and obligations of Landlord and Tenant under this Lease are not materially adversely affected, Tenant's cost of operating its business in the Premises is not materially increased, and Tenant's and Tenant's Invitees use of vehicular and pedestrian access to the Premises and parking spaces to be provided to Tenant under this Lease are not materially adversely affected, Landlord reserves for itself and for all other owner(s) and operator(s) of the Common Areas and the balance of the Property and/or the Project, the right from time to time to: (i) install, use, maintain, repair, replace and relocate pipes, ducts, conduits, wires and appurtenant meters and equipment above the ceiling surfaces, below the floor surfaces, within the walls and in the central core areas of the Building; (ii) make changes to the design and layout of the Project, including, without limitation, changes to buildings, driveways, entrances, loading and unloading areas, direction of traffic, landscaped areas and walkways, and, subject to the parking provisions contained in Section 29 and Exhibit D, parking spaces and parking areas; and (iii) use or close temporarily the Common Areas and/or other portions of the Property and the Project while engaged in making improvements, repairs or alterations to the Building, the Property, the Project or any portion thereof, and further provided Landlord shall in each instance use commercially reasonable efforts to minimize any interference with Tenant's and Tenant's Invitees use and occupancy of the Premises.

8. **Leasehold Improvements**. All improvements in and to the Premises, including any Alterations (defined below) (collectively, "**Leasehold Improvements**") shall remain upon the Premises at the end of the Term without compensation to Tenant. Landlord, however, by written notice to Tenant at least sixty (60) calendar days prior to the Expiration Date, may require Tenant, at its expense, to remove any electronic, phone and data cabling and related equipment (collectively, "**Cable**") installed by or for the benefit of Tenant and/or any Landlord Work or Alterations that, in Landlord's reasonable judgment, are not standard office improvements and are of a nature that would require material removal and repair costs (collectively referred to as "**Required Removables**").

9. **Repairs and Alterations**.

9.01 Tenant shall reasonably and periodically inspect the Premises to identify any conditions that are dangerous or in need of maintenance or repair and shall promptly provide Landlord with notice of any such conditions. Tenant shall, at its sole cost and expense, promptly perform all maintenance and repairs to the Premises that are not Landlord's express responsibility under this Lease, and shall keep the Premises in good condition and repair, reasonable wear and tear and casualty excepted. If Tenant fails to make any repairs to the Premises for more than 15 calendar days after notice from Landlord, or such additional time as reasonably necessary if such repair cannot reasonably be completed within 15 calendar days (although notice shall not be required in an emergency), Landlord upon at least 10 calendar days prior written notice to Tenant may make the repairs, and Tenant shall pay the reasonable cost of the repairs, together with an administrative charge in an amount equal to 10% of the cost of the repairs. Landlord shall perform all maintenance and repairs upon the: (a) structural elements of the Building;
(b) mechanical, electrical, plumbing and fire/life safety systems serving the Building in general; (c) Common Areas;
(d) roof of the Building; (e) exterior windows of the Building; (f) elevators serving the Building; and (g) the Premises' HVAC system and units; provided, however, the repair of any and all structural defects in the Building's base, shell and core including the structural elements of the roof and floor and the repair of any latent defects in such base, shell and core shall be at Landlord's sole cost and expense and not included in Expenses. Tenant hereby waives any and all rights under and benefits of subsection 1 of Section 1932, and Sections 1941 and 1942 of the California Civil Code, or any similar or successor Laws now or hereinafter in effect.

9.02 Tenant shall not make alterations, repairs, additions or improvements or install any cable (collectively referred to as "**Alterations**") without first obtaining the written consent of Landlord in each instance, which consent Landlord shall not unreasonably withhold, condition or delay. In order to obtain such approvals, Tenant shall furnish Landlord with plans and specifications; names of contractors acceptable to Landlord; required permits and approvals; and evidence of contractor's and subcontractor's insurance in amounts reasonably required by Landlord and naming Landlord as an additional insured. Tenant shall reimburse Landlord for any sums paid by Landlord for third party examination of Tenant's plans for Alterations. In addition, Tenant shall pay Landlord a fee for Landlord's oversight and coordination of any Alterations equal to 5% of the cost of the Alterations. Upon completion, Tenant shall furnish "as-built" plans for Alterations, completion affidavits and full and final waivers of lien. The construction of the initial Tenant Improvements shall be governed by Exhibit C attached hereto and not this Section 9. Notwithstanding anything to the contrary contained herein, Tenant may make strictly cosmetic changes to the finish work in the Premises (the "**Cosmetic Alterations**"), without Landlord's consent, provided that the aggregate cost of any such alterations does not exceed $100,000.00 in any twelve (12) month period, and further provided that such Cosmetic Alterations do not (a) require any structural or other substantial modifications to the Premises, (b) require any changes to, nor adversely affect, the systems and equipment of the Building (including, without limitation, the sprinkler system), (c) require any permits, or (d) affect the exterior appearance of the Building. Tenant shall give Landlord at least ten (10) business days prior notice of such Cosmetic Alterations, which notice shall be accompanied by reasonably adequate evidence that such changes meet the criteria contained in this Section 9.02 for Cosmetic Alterations.

10. **Entry by Landlord**. Landlord may enter the Premises to inspect the Premises, to clean and make repairs, alterations or additions and to perform or facilitate maintenance, repairs, alterations or additions to any portion of the Building, to show the Premises to prospective lenders, investors and buyers, and during the last twelve (12) months of the Term or any extension term to show the Premises to prospective tenants. Except in emergencies or to provide Building services, Landlord shall provide Tenant with at least twenty-four (24) hours prior written notice of entry. Entry by Landlord shall not constitute a constructive eviction or entitle Tenant to an abatement or reduction of Rent. Landlord agrees and understands that any and all observations, understandings, trade secrets, knowledge, or materials and communications which it receives or develops in connection with its obligations under this Lease which upon a reasonable inspection shall appear confidential, shall constitute confidential information **("Tenant Confidential Information")**. To the extent permitted by law, Landlord shall not disclose or share Tenant Confidential Information with any third party without the prior, written consent of the Tenant. For the avoidance of doubt, in the event Landlord discovers Tenant Confidential Information in the course of exercising its rights under this Section, Landlord shall not use, disseminate, or otherwise disclose the Tenant Confidential Information to any third party without the express, written consent of the Tenant.

11. **Assignment and Subletting**. Tenant shall not assign, sublease, transfer or encumber any interest in this Lease or allow any third party to use any portion of the Premises (collectively or individually, a "**Transfer**") without the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed. It is further understood that any renewal, extension or modification of an existing sublease shall also require Landlord's prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed. Any attempted Transfer in violation of this Section shall, at Landlord's option, be void. Within 15 calendar days after receipt of executed copies of the transfer documentation and such other information as Landlord may reasonably request, Landlord shall either: (a) consent to the Transfer by execution of a consent agreement in a form reasonably designated by Landlord; (b) refuse to consent to the Transfer; or (c) recapture the portion of the Premises that Tenant is proposing to Transfer. If Landlord exercises its right to recapture, the Lease shall automatically be amended to delete the applicable portion of the Premises effective on the proposed effective date of the Transfer. Upon Landlord's consent to any Transfer, Tenant shall pay and continue to pay Landlord fifty percent (50%) of any net "Transfer Premium" (defined below), received by Tenant from the transferee. "**Transfer Premium**" shall mean all rent, Additional Rent or other consideration payable by a Transferee in connection with a Transfer in excess of the Base Rent, Taxes and Expenses payable by Tenant under this Lease during the term of the Transfer and if such Transfer is for less than all of the Premises, the Transfer Premium shall be calculated on a rentable square foot basis less any out-of-pocket concessions such as

free rent, moving or tenant improvement allowances, legal fees including Landlord's review fee and attorney's fees as described below paid by Landlord, brokerage commissions, space planning fees and lease assumption costs. Tenant hereby waives the provisions of Section 1995.310 of the California Civil Code, or any similar or successor Laws, now or hereinafter in effect, and all other remedies, including, without limitation, any right at law or equity to terminate this Lease, on its own behalf and, to the extent permitted under all applicable Laws, on behalf of the proposed transferee. In no event shall any Transfer release or relieve Tenant from any obligation under this Lease. Tenant shall pay Landlord a review fee of $1,500.00 for Landlord's review of any requested Transfer. Additionally, Tenant shall reimburse Landlord for all reasonable attorneys' fees and costs incurred by Landlord with respect to any Transfer not to exceed $2,000.00 per proposed Transfer, whether consented to or not. If Tenant is in Default (as defined below), Landlord may require that all sublease payments be made directly to Landlord, in which case Tenant shall receive a credit against Rent in the amount of Tenant's share of payments received by Landlord.

Notwithstanding anything in this Section 11 to the contrary, without the consent of Landlord, this Lease may be assigned to ("**Successor Entity**") (i) an entity created by merger, reorganization or recapitalization of or with Tenant or (ii) a purchaser of all or substantially all of Tenant's assets; provided, in the case of both clause (i) and clause (ii), that (A) Landlord shall have received a notice of such assignment from Tenant at least ten (10) calendar days prior to the effective date of the applicable transaction, (B) the assignee assumes by written instrument satisfactory to Landlord all of Tenant's obligations under this Lease, (C) such assignment is for a valid business purpose and not to avoid any obligations under this Lease, (D) the assignee is a reputable entity of good character and shall have, immediately after giving effect to such assignment, an aggregate net worth ("**Net Worth**"), ignoring goodwill as an asset, computed in accordance with generally accepted accounting principles ("**GAAP**") at least equal to the aggregate Net Worth (as so computed) of Tenant immediately prior to such assignment or on the date of this Lease, whichever is greater, and (E) the Premises shall continue to be used for the Permitted Use. Further, Tenant may assign this Lease or sublet all or any part of the Premises to an Affiliate of Tenant; provided, that (1) Landlord shall have received a notice of such assignment or sublease from Tenant at least ten (10) calendar days prior to the effective date of the applicable transaction; and (2) in the case of any such assignment, (a) the assignment is for a valid business purpose and not to avoid any obligations under this Lease, (b) the assignee assumes by written instrument satisfactory to Landlord all of Tenant's obligations under this Lease, and (c) the Premises shall be used for the Permitted Use. "**Affiliate**" means, as to any designated person or entity, any other person or entity which controls, is controlled by, or is under common control with, such designated person or entity. "**Control**" (and with correlative meaning, "controlled by" and "under common control with") means ownership or voting control, directly or indirectly, of more than fifty percent (50%) of the voting stock, partnership interests or other beneficial ownership interests of the entity in question. An Affiliate or Successor Entity that is assigned Tenant's entire interest in this Lease in accordance with this paragraph may be referred to herein as an "**Affiliated Assignee**."

12. **Liens**. Tenant shall not permit mechanic's or other liens to be placed upon the Property or Premises in connection with any work purportedly done by or for the benefit of Tenant or its transferees. Tenant shall, within 10 calendar days of notice from Landlord, fully discharge any lien by settlement, by bonding or by insuring over the lien in the manner prescribed by Laws. If Tenant fails to do so, Landlord may bond, insure over or otherwise discharge the lien, and Tenant shall reimburse Landlord for any amount actually incurred and paid by Landlord in connection therewith.

13. **Indemnity and Waiver of Claims**. Except to the extent caused by the gross negligence or willful misconduct of Landlord or any Landlord Related Parties, Tenant hereby waives all claims against and releases Landlord, the Additional Insureds, and each of their trustees, members, principals, beneficiaries, partners, officers, directors, employees, Mortgagees (as defined herein) and agents (the "**Landlord Related Parties**") from all claims for any injury to or death of persons, damage to property or business loss in any manner related to (a) acts of God, (b) acts of third parties, (c) the bursting or leaking of any tank, water closet, drain or other pipe; (d) the inadequacy or failure of any security services, personnel or equipment, or (e) any matter outside of the reasonable control of Landlord. Except to the extent caused by the gross negligence or willful misconduct of Landlord or any Landlord Related Parties, Tenant shall indemnify, defend and hold Landlord and Landlord Related Parties harmless against and from all liabilities, obligations, suits, damages, penalties, claims, actions, losses, costs, charges and expenses (collectively, "**Claims**"), including, without limitation, reasonable attorneys' fees and other professional fees (if and to the extent permitted by Laws), which may be imposed upon, incurred by or asserted against Landlord or any of the Landlord Related Parties by any third party and arising out of or in connection with any damage or injury occurring in, on or about the Premises or any acts or omissions (including without limitation violations of Laws and/or CC&Rs) of Tenant and its trustees, members, principals, beneficiaries, partners, officers, directors, employees, Mortgagees and agents (the "**Tenant Related Parties**") or any of Tenant's transferees, contractors or licensees.

14. **Insurance**.

14.01 Tenant shall obtain and maintain throughout the Term, at Tenant's sole cost and expense, the following insurance ("**Tenant's Insurance**"). Additionally, the Tenant shall maintain the Tenant's Insurance for a period of four (4) years following the latter expiration or termination of the Term, with terms and coverage no less favorable than those contained in this Section 14.

(a) Provided Tenant is reasonably unable to obtain occurrence basis insurance, Tenant shall maintain Commercial General Liability Insurance, on a claims-made basis, insuring coverage for bodily injury (including death and mental anguish) and property damage (including loss of use), and including the following divisions and extensions of coverage: Premises and Operations; Owners and Contractors protective; Insured Contracts as defined by the most recently filed ISO CG 00 01 form (including coverage for Tenant's indemnity obligations under this Lease); liquor liability, if applicable; and Products and Completed Operations. Such insurance must have the following minimum limits of liability: $1,000,000 Per Occurrence, $2,000,000 General Aggregate, $1,000,000 Personal and Advertising Injury – Per Occurrence, $2,000,000 Products and Completed Operations Aggregate. The policy shall be endorsed to ensure the general aggregate limit shall apply separately and in total to this location only (designated location general aggregate limit). The policy shall name the Additional Insureds as additional insureds on a primary and non-contributory basis;

(b) Property Insurance, written on an "All Risk" or Special Form ISO CP 10 30 or its equivalent, including (without limitation) coverage for fire, explosion, riot, riot attending a strike, civil commotion, aircraft, vehicle, smoke damage, vandalism, malicious mischief, sprinkler leakage, earthquake sprinkler leakage, water damage from any cause whatsoever (including but not limited to sprinkler leakage, bursting, leaking, or stoppage of any pipes, explosion, and backup or overflow from sewers or drains), earthquake, hail, windstorm, cyclone, tornado, flood, acts of terrorism, equipment breakdown, and pollution coverage for damage caused by heat, smoke or fumes from a hostile fire, at full replacement cost value (without deduction for depreciation) and with a replacement cost endorsement covering all of Tenant's business and trade fixtures, equipment, movable partitions, furniture, merchandise and other personal property within the Premises ("**Tenant's Property**") and any Leasehold Improvements performed by or for the benefit of Tenant;

(c) Extra Expense, Loss of Income or Property/Business Interruption Insurance, written on an ISO CP 00 30 form or its equivalent, in such amounts as will reimburse Tenant for direct or indirect loss of earnings attributable to all perils included within "All Risk" coverage or otherwise commonly insured against by prudent tenants or attributable to prevention of access to the Premises, Tenant's parking areas or to the Building as a result of such perils, with such coverage to extend to actual loss sustained subject to a minimum of one year loss of Rental Value, including Extra Expense as needed to reduce the period of restoration after the loss;

(d) Workers' Compensation Insurance as required by Laws and in amounts as may be required by applicable statute and Employers Liability Coverage of at least $1,000,000 bodily injury (each accident),
$1,000,000 bodily injury by disease (each employee), and $1,000,000 bodily injury by disease (policy limit), and containing a waiver of subrogation endorsement in favor of Landlord;

(e) Commercial Automobile Liability insuring bodily injury and property damage arising from any auto (including all owned, non-owned, leased and hired vehicles), with minimum combined single limit of liability of
$1,000,000 per accident;

(f) If the Tenant is in the business of manufacturing, distributing, selling, serving or furnishing alcohol, on or from the Premises, Liquor Liability Insurance holding harmless and protecting Landlord and the Additional Insureds from and against any and all Claims arising under any present or future law, statute, or ordinance of the State of California, or other governmental authority having jurisdiction over the Premises, by reason of any storage, sale, use or giving away of alcoholic beverages on or from the Premises and issued on a form as otherwise acceptable to Landlord. Such policy shall have a minimum limit of liability of $5,000,000 per occurrence and in the aggregate for bodily injury (fatal or nonfatal) and property damage;

(g) Umbrella/Excess Liability on a follow form basis sitting excess of and not more restrictive than the underlying Employers Liability, Liquor Liability (if applicable), Commercial Automobile Liability, and Commercial General Liability policies, with minimum limits of liability of $5,000,000 Per Occurrence and $5,000,000 Aggregate. Such Umbrella/Excess Liability policy must be endorsed to provide that this insurance is primary to, and non-contributory with, any other insurance on which any of the Additional Insureds are an insured, whether such other insurance is primary, excess, contingent, self-insurance, or insurance on any other basis. This endorsement must cause the Umbrella/Excess coverage to be vertically exhausted, whereby such coverage is not subject to any "Other Insurance" clause under this Umbrella and/or Excess Liability policy;

(h) With respect to improvements or alterations performed by Tenant within the Premises, Tenant shall carry or cause its general contractor to carry Builder's Risk insurance (or an Installation Floater) written on an "All Risk" or Special Form basis, in the amount of the costs of such improvements or alterations, on a replacement cost basis. Tenant shall also cause its general contractor to carry Commercial General Liability, Workers Compensation Insurance, Commercial Automobile Liability, and Umbrella/Excess Liability insurance with terms and specifications mirroring those required in this Section 14, including but not limited to each term of Section 14.02 below. Tenant shall also require its general contractor to require each of its subcontractors to maintain insurance coverages equivalent to those standard in the industry but in no event less than the Commercial General Liability and Workers' Compensation limits required above, and such insurance shall include terms and specifications mirroring those required in the below Section 14.02; and

(i) Such other insurance that are then customarily maintained by similar tenants in the region and as Landlord (or Landlord's lender) may require.

14.02 Any company writing Tenant's Insurance shall have an A.M. Best rating of not less than A:X and shall be licensed to issue insurance coverage in the State of California. All policies shall contain deductibles not greater than $50,000 unless otherwise approved by Landlord in writing. Landlord shall not be responsible for any deductibles or self-insured retentions. All liability insurance policies (except for Workers' Compensation) shall (i) name Landlord (or its successors and assignees), Flight Venture LLC, Alcion Flight Investors LLC, Alcion Flight Strategic LLC, Alcion Real Estate Partners Master Fund, L.P., Alcion Real Estate Partners Strategic Parallel Fund III, L.P., Alcion Capital Master Fund GP III, LLC, Alcion Capital Strategic III, LLC, LO Flight LLC, Lincoln Property Company Commercial, Inc., LPC West, Inc. the managing agent for the Building (or any successor), and their respective members, principals, beneficiaries, partners, officers, directors, employees, lenders, and agents, and other designees of Landlord and its successors as the interest of such designees shall appear, as additional insureds (collectively, the "**Additional Insureds**") (in the case of General Liability and Umbrella/Excess Liability following form thereof, for both ongoing and completed operations utilizing endorsement ISO Form CG 2011 11/85 or a combination of ISO Form CG 20 37 10 01 and ISO CG 20 10 10 01 or other equivalent(s) approved by Landlord), (ii) must contain an endorsement stating "such insurance as is afforded by this policy for the benefit of Landlord and any other additional insured(s) designated by Landlord, shall be primary as respects any liability or claims arising out of the occupancy of the Premises by Tenant or Tenant's operations, and any insurance carried by Landlord or any other additional insured(s) shall be non-contributory" provision that the insurance afforded by such policy is primary insurance, and (iii) contain a cross-liability endorsement or separation of insureds/severability of interests clause. All policies of Tenant's Insurance shall (x) contain an

unqualified thirty (30) calendar days' advance written notice of any cancellation, termination, material change or lapse of insurance and (y) contain an endorsement that the insurer waives its rights to subrogation against Landlord and the Additional Insureds as described in Section 15 below. No policy required hereunder shall contain a co-insurance clause and all policy deductibles shall be acceptable to Landlord. Tenant shall provide Landlord with duly executed certificates of insurance on ACORD 25 and ACORD 28 forms, endorsements, and, upon Landlord's request, copies of the policies, evidencing all insurance required to be carried by Tenant hereunder (including but not limited to the additional insured coverage as noted above) at least fifteen (15) calendar days prior to the earlier to occur of the Commencement Date or the date Tenant is provided with possession of the Premises, and thereafter as necessary to assure that Landlord always has current certificates evidencing Tenant's Insurance. In no event shall the limits of any insurance policy obtained by a Tenant be considered to limit the liability of Tenant under this Lease. Further, and without limitation of Section 28.06 herein, all obligations placed on Tenant in this Section 14 and the below Section 15 (including, but without limitation and purely for the avoidance of doubt, maintenance of products-completed operations coverage, additional insured status for completed operations, primary and non-contributory coverage, and waiver of subrogation) shall survive the termination or expiration of this Lease.

15. **Subrogation**. Notwithstanding anything to the contrary in this Lease, Landlord and Tenant hereby waive and shall cause their respective insurance carriers to waive any and all rights of recovery, claims, actions or causes of action against the other for any loss or damage to person with respect to Tenant's Property, Leasehold Improvements, the Building, the Premises, or any contents thereof, including rights, claims, actions and causes of action based on negligence, which loss, damage or injury is (or would have been, had the insurance required by this Lease been carried) covered by insurance. As noted above, Tenant also waives subrogation with respect to losses or claims covered by any liability and worker's compensation insurance.

16. **Casualty Damage**. Landlord, by notice to Tenant within 60 calendar days of the date of the fire or other casualty (a "**Casualty**"), shall have the right to terminate this Lease if all or any part of the Premises is damaged to the extent that it cannot reasonably be repaired within 120 calendar days after the date of the Casualty. If this Lease is not terminated, Landlord shall promptly and diligently, restore the Premises and all Leasehold Improvements existing within the Premises prior to the Casualty. Such restoration shall be to substantially the same condition that existed prior to the Casualty, except for modifications required by Laws. Upon notice from Landlord, Tenant shall assign to Landlord (or to any party designated by Landlord) all property insurance proceeds payable to Tenant under Tenant's Insurance with respect to any Leasehold Improvements performed by or for the benefit of Tenant; provided if the estimated cost to repair such Leasehold Improvements exceeds the amount of insurance proceeds received by Landlord from Tenant's insurance carrier, the excess cost of such repairs shall be paid by Tenant to Landlord prior to Landlord's commencement of repairs. Within 30 calendar days of demand, Tenant shall also pay Landlord for any additional excess costs that are determined during the performance of the repairs. Landlord shall not be liable for any inconvenience to Tenant, or injury to Tenant's business resulting in any way from the Casualty or the repair thereof. During any period of time that all or any portion of the Premises is rendered untenantable as a result of a Casualty, the Rent shall abate for the portion of the Premises that is untenantable or unusable by Tenant for its ordinary business operations and not used by Tenant for the period from the date of the Casualty to the date such portion of the Premises is made tenantable. Notwithstanding the foregoing, and without limiting Tenant's obligations, to pay to Landlord any cost of restoration in excess of the proceeds of Tenant's Insurance, in the event that Landlord does not receive sufficient insurance proceeds to complete all required restoration work, whether due to an uninsured Casualty, requirements of a Mortgagee, or otherwise, then Landlord shall have the right to terminate this Lease by written notice to Tenant. The provisions of this Lease, including this Section 16, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, all or any part of the Premises, the Building, the Property or the Project, and any Laws, including, without limitation, Sections 1932(2) and 1933(4) of the California Civil Code, with respect to any rights or obligations concerning damage or destruction in the absence of an express agreement between the parties, and any similar or successor Laws now or hereinafter in effect, shall have no application to this Lease or any damage or destruction to all or any part of the Premises, the Building or the Property.

Within sixty (60) calendar days after the date Landlord learns of the necessity for repairs as a result of Casualty damage to the Premises, Landlord shall notify Tenant ("**Damage Repair Estimate**") of Landlord's estimated assessment of the period of time in which the repairs will be completed to the Premises. If the Damage Repair Estimate indicates that repairs cannot be completed to the Premises within one hundred eighty (180) calendar days after being commenced and if such damage is not the result of the gross negligence or willful misconduct of Tenant or Tenant's Invitees, Tenant may elect, not later than thirty (30) calendar days after Tenant's receipt of the Damage Repair Estimate, to terminate this Lease by written notice to Landlord effective thirty (30) calendar days following delivery of Tenant's notice.

17. **Condemnation**. Either party may terminate this Lease if any material part of the Premises is taken or condemned for any public or quasi-public use under Laws, by eminent domain or private purchase in lieu thereof (a "**Taking**"). Landlord shall also have the right to terminate this Lease if there is a Taking of any portion of the Building or Property which would have a material adverse effect on Landlord's ability to profitably operate the remainder of the Building. The terminating party shall provide written notice of termination to the other party within forty-five
(45) calendar days after it first receives notice of the Taking. The termination shall be effective on the date the physical taking occurs. All compensation awarded for a Taking, or sale proceeds, shall be the property of Landlord. Tenant hereby waives any and all rights it might otherwise have pursuant to Section 1265.130 of the California Code of Civil Procedure, or any similar or successor Laws.

18. **Events of Default**. Each of the following occurrences shall be considered to be a "**Default**": (a) Tenant's failure to pay any portion of Rent when due, if the failure continues for 5 calendar days after written notice to Tenant that the same is past due, which notice shall be in satisfaction of, and not in addition to, notice required by Laws ("**Monetary Default**"); (b) Tenant's failure to comply with the time deadline for Landlord's request for a subordination agreement, estoppel certificate or financial statements from Tenant pursuant to Sections 24 or 25 below (as applicable) if the failure is not cured within 10 calendar days after written notice to Tenant that the same is past due; or (c) Tenant's failure (other than a Monetary Default and other than as provided in clause (b) above) to comply with any term, provision, condition or covenant of this Lease, if the failure is not cured within 30 calendar days after written notice to Tenant; provided, however, if Tenant's failure to comply cannot reasonably be cured within 30 calendar days, Tenant shall be allowed additional time (not to exceed 60 calendar days)

as is reasonably necessary to cure the failure so long as Tenant commences to cure within 30 calendar days and Tenant diligently pursues the cure to completion. Any notice provided under this Section 18 shall be in satisfaction of, and not in addition to, any notice required by Laws (including, without limitation, Section 1161 of the California Code of Civil Procedure).

19. **Remedies**.

19.01 Upon the occurrence of any Default under this Lease, whether enumerated in Section 18 or not, Landlord shall have the option to pursue any one or more of the following remedies without any notice (except as expressly prescribed herein) or demand whatsoever (and without limiting the generality of the foregoing, Tenant hereby specifically waives notice and demand for payment of Rent or other obligations, except for those notices specifically required pursuant to the terms of Section 18 or this Section 19, and waives any and all other notices or demand requirements imposed by applicable law):

(a) Terminate this Lease and Tenant's right to possession of the Premises and recover from Tenant an award of damages equal to the sum of the following:

(i) The Worth at the Time of Award (as defined below) of the unpaid Rent which had been earned at the time of termination;

(ii) The Worth at the Time of Award of the amount by which the unpaid Rent which would have been earned after termination until the time of award exceeds the amount of such Rent loss that Tenant affirmatively proves could have been reasonably avoided;

(iii) The Worth at the Time of Award of the amount by which the unpaid Rent for the balance of the Term after the time of award exceeds the amount of such Rent loss that Tenant affirmatively proves could be reasonably avoided;

(iv) Any other amount reasonably necessary to compensate Landlord for all the detriment either proximately caused by Tenant's failure to perform Tenant's obligations under this Lease or which in the ordinary course of things would be likely to result therefrom; and

(v) All such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time under applicable law.

The "**Worth at the Time of Award**" of the amounts referred to in parts (i) and (ii) above, shall be computed by allowing interest at the lesser of a per annum rate equal to: (A) the greatest per annum rate of interest permitted from time to time under applicable law, or (B) the Prime Rate (defined below) plus 5%. For purposes hereof, the "**Prime Rate**" shall be the per annum interest rate publicly announced as its prime or base rate by a federally insured bank selected by Landlord in the State of California. The "Worth at the Time of Award" of the amount referred to in part (iii), above, shall be computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus 1%;

(b) Employ the remedy described in California Civil Code §1951.4 (Landlord may continue this Lease in effect after Tenant's breach and abandonment and recover Rent as it becomes due, if Tenant has the right to sublet or assign, subject only to reasonable limitations); or

(c) Notwithstanding Landlord's exercise of the remedy described in California Civil Code §1951.4 in respect of an event or events of Default, at such time thereafter as Landlord may elect in writing, to terminate this Lease and Tenant's right to possession of the Premises and recover an award of damages as provided above in Section 19.01(a).

19.02 The subsequent acceptance of Rent hereunder by Landlord shall not be deemed to be a waiver of any preceding breach by Tenant of any term, covenant or condition of this Lease, other than the failure of Tenant to pay the particular Rent so accepted, regardless of Landlord's knowledge of such preceding breach at the time of acceptance of such Rent. No waiver by Landlord of any breach hereof shall be effective unless such waiver is in writing and signed by Landlord.

19.03 TENANT HEREBY WAIVES ANY AND ALL RIGHTS CONFERRED BY SECTION 3275 OF THE CIVIL CODE OF CALIFORNIA AND BY SECTIONS 1174 (c) AND 1179 OF THE CODE OF CIVIL PROCEDURE OF CALIFORNIA AND ANY AND ALL OTHER LAWS AND RULES OF LAW FROM TIME TO TIME IN EFFECT DURING THE LEASE TERM PROVIDING THAT TENANT SHALL HAVE ANY RIGHT TO REDEEM, REINSTATE OR RESTORE THIS LEASE FOLLOWING ITS TERMINATION BY REASON OF TENANT'S BREACH. TENANT ALSO HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, THE RIGHT TO TRIAL BY JURY IN ANY LITIGATION ARISING OUT OF OR RELATING TO THIS LEASE.

19.04 No right or remedy herein conferred upon or reserved to Landlord is intended to be exclusive of any other right or remedy, and each and every right and remedy shall be cumulative and in addition to any other right or remedy given hereunder or now or hereafter existing by agreement, applicable law or in equity. In addition to other remedies provided in this Lease, Landlord shall be entitled, to the extent permitted by applicable law, to injunctive relief, or to a decree compelling performance of any of the covenants, agreements, conditions or provisions of this Lease, or to any other remedy allowed to Landlord at law or in equity. Forbearance by Landlord to enforce one or more of the remedies herein provided upon an event of Default shall not be deemed or construed to constitute a waiver of such Default. In no event shall Tenant be liable for Landlord's lost profits, damage to or loss of business or any form of special, indirect or consequential damages except in connection with a Tenant holdover as provided in Section 22 below.

19.05 If Tenant is in Default of any of its non-monetary obligations under this Lease, Landlord shall have the right upon at least ten (10) calendar days prior written notice to Tenant to perform such obligations. Tenant shall reimburse Landlord for the cost of such performance upon demand together with an administrative charge equal to 5% of the cost of the work performed by Landlord.

19.06 This Section 19 shall be enforceable to the maximum extent such enforcement is not prohibited by applicable law, and the unenforceability of any portion thereof shall not thereby render unenforceable any other portion.

19.07 Notwithstanding anything to the contrary set forth in this Lease, Landlord shall be in default in the performance of any obligation required to be performed by Landlord pursuant to this Lease if Landlord fails to perform such obligation within thirty (30) calendar days after the receipt of notice from Tenant specifying in detail Landlord's failure to perform; provided, however, if the nature of Landlord's obligation is such that more than thirty (30) calendar days are required for its performance, then Landlord shall not be in default under this Lease if it shall commence such performance within such thirty (30) calendar day period and thereafter diligently pursue the same to completion. Upon any such default by Landlord under this Lease, Tenant may, except as otherwise specifically provided in this Lease to the contrary, exercise any of its rights provided at law or in equity or set forth in this Lease.

20. **Limitation of Liability**.

THE LIABILITY OF LANDLORD (AND OF ANY SUCCESSOR LANDLORD) SHALL BE LIMITED TO THE LESSER OF (A) THE INTEREST OF LANDLORD IN THE PROPERTY, OR (B) THE EQUITY INTEREST LANDLORD WOULD HAVE IN THE PROPERTY IF THE PROPERTY WERE ENCUMBERED BY THIRD PARTY DEBT IN AN AMOUNT EQUAL TO 70% OF THE VALUE OF THE PROPERTY. TENANT SHALL LOOK SOLELY TO LANDLORD'S INTEREST IN THE PROPERTY AND ANY INSURANCE OR CONDEMNATION PROCEEDS FROM THE PROPERTY FOR THE RECOVERY OF ANY JUDGMENT OR AWARD AGAINST LANDLORD OR ANY LANDLORD RELATED PARTY. NEITHER LANDLORD NOR ANY LANDLORD RELATED PARTY SHALL BE PERSONALLY LIABLE FOR ANY JUDGMENT OR DEFICIENCY AND IN NO EVENT SHALL LANDLORD OR ANY LANDLORD RELATED PARTY BE LIABLE TO TENANT FOR ANY LOST PROFIT, DAMAGE TO OR LOSS OF BUSINESS OR ANY FORM OF SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGE. BEFORE FILING SUIT FOR AN ALLEGED DEFAULT BY LANDLORD, TENANT SHALL GIVE LANDLORD AND THE MORTGAGEE(S) (DEFINED IN SECTION 24 BELOW) WHOM TENANT HAS BEEN NOTIFIED HOLD MORTGAGES (DEFINED IN SECTION 24 BELOW), NOTICE AND REASONABLE TIME TO CURE THE ALLEGED DEFAULT.

21. **Relocation**. Landlord, at its expense, at any one time during the Term, may one-time relocate Tenant from the Premises to second (2nd) floor or higher space of reasonably comparable size, view, layout and utility ("**Relocation Space**") within the Building or other buildings within the Project upon at least 90 calendar days' prior written notice to Tenant. Expenses to be paid by Landlord, within thirty (30) days following delivery of an invoice by Tenant to Landlord, are Tenant's reasonable and actual expenses resulting from the physical relocation of Tenant's furniture, fixtures, cabling and equipment to the Relocation Space. Landlord, at its sole expense, shall provide Tenant with tenant improvements in the Relocation Space at least equal in quality to those in the Premises, which tenant improvements shall be substantially completed prior to the date Tenant has to vacate and surrender possession of the original Premises to Landlord. Tenant shall have no obligation to remove any tenant improvements, Alterations or cabling from the original Premises if Landlord relocates Tenant from the original Premises to the Relocation Space pursuant to this Section 21. From and after the date of the relocation, "Premises" shall refer to the Relocation Space into which Tenant has been moved and the Base Rent and Tenant's Pro Rata Share shall be adjusted based on the rentable square footage of the Relocation Space; provided, however, if (a) the Relocation Space contains fewer rentable square feet than the original Premises, then Tenant's Base Rent obligation and Tenant's Pro Rata Share shall be proportionately reduced or (b) the Relocation Space contains more rentable square feet than the original Premises, then Tenant's Base Rent obligation and Tenant's Pro Rata Share shall not increase as a result of such relocation.

22. **Holding Over**. If Tenant remains in possession of the Premises after expiration or termination of the Term, or after the date in any notice given by Landlord to Tenant terminating this Lease, such possession by Tenant shall be deemed to be a month-to-month tenancy terminable on written thirty (30) day notice at any time, by either party. Tenant's occupancy shall be subject to all the terms and provisions of this Lease and Tenant shall pay an amount (on a per month basis without reduction for partial months during the holdover) equal to 150% of the fair market gross rental for the Premises as reasonably determined by Landlord (which in no event shall be less than 150% of the sum of the Base Rent and Additional Rent due for the period immediately preceding the holdover). No holdover by Tenant or payment by Tenant after the termination of this Lease shall be construed to extend the Term or prevent Landlord from immediate recovery of possession of the Premises by summary proceedings or otherwise. Further, there shall be no reconciliation or refund of amounts paid by Tenant during any period of holdover. If Landlord provides Tenant with at least thirty (30) calendar days prior written notice that Landlord has a signed proposal or lease from a succeeding tenant to lease the Premises, and if Tenant fails to surrender the Premises upon the later of (the "**Consequential Damages Date**") (i) the date of expiration of such thirty (30) day period or (ii) the date of termination or expiration of this Lease, in addition to any other liabilities to Landlord accruing therefrom, Tenant shall protect, defend, indemnify and hold Landlord harmless from all loss, costs (including reasonable attorneys' fees) and liability resulting from such failure to surrender possession of the Premises to Landlord on or before the Consequential Damages Date, including any claims made by any succeeding tenant founded upon such failure to surrender, and any lost profits to Landlord resulting therefrom.

23. **CC&Rs**. Tenant shall comply with all recorded covenants, conditions, and restrictions currently affecting the Building and/or Project (the "**Current CC&Rs**"), including without limitation, the Governing Documents. Additionally, Tenant acknowledges that the Building may be subject to any future covenants, conditions, and restrictions and/or amendments to the Current CC&Rs (in any such event, the "**Future CC&Rs**") which Landlord, in Landlord's discretion, deems reasonably necessary or desirable and Tenant agrees that this Lease shall be subject and subordinate to the Current CC&Rs and such Future CC&Rs (collectively, the "**CC&Rs**"), provided any such Future CC&Rs shall not:

(a) have a material adverse effect upon the access to and/or use by Tenant, or Tenant's Invitees, of the Premises or vehicular and/or pedestrian access to the Premises or throughout the Project, (b) be materially inconsistent with the rights and obligations of Landlord and Tenant under this Lease; or (c) materially increase Tenant's cost of operating its business in the Premises.

24. **Subordination to Mortgages; Estoppel Certificate**. Tenant accepts this Lease subject and subordinate to any mortgage(s), deed(s) of trust, ground lease(s) or other lien(s) now or subsequently arising upon the Premises, the Building or the Property, and to renewals, modifications, refinancings and extensions thereof (collectively referred to as a "**Mortgage**"); provided, however, that a condition precedent to such subordination as to any future Mortgages shall be that Landlord obtains from the lender or other party in question a commercially reasonable subordination, non-disturbance and attornment agreement in favor of Tenant. This clause shall be self-operative, but upon request from the holder of a Mortgage (a "**Mortgagee**"), Tenant shall execute a commercially reasonable subordination, non- disturbance and attornment agreement within 10 calendar days after receipt of a written request from Landlord. As an alternative, a Mortgagee shall have the right at any time to subordinate its Mortgage to this Lease. Upon request, Tenant shall, without charge, attorn to any successor to Landlord's interest in this Lease. Tenant shall, within 10 calendar days after receipt of a written request from Landlord, execute and deliver a commercially reasonable estoppel certificate to those parties as are reasonably requested by Landlord.

25. **Financial Statements**. Prior to the execution of this Lease by Landlord and at any time during the Term of this Lease (except in the event of sale or refinance of the Project, no more frequently than once each calendar year) upon ten (10) calendar days prior written notice from Landlord, Tenant agrees to provide Landlord with a current financial statement for Tenant and any guarantors of Tenant and financial statements for the two (2) years prior to the current financial statement year for Tenant and any guarantors of Tenant. Such statements are to be prepared in accordance with generally accepted accounting principles.

26. **Notice**. All demands, approvals, consents or notices shall be in writing and delivered by hand or sent by registered or certified mail with return receipt requested, or sent by overnight or same day courier service at the party's respective Notice Address(es) set forth in Section 1. Each notice shall be deemed to have been received on the earlier to occur of actual delivery or the date on which delivery is refused, or, if Tenant has vacated the Premises or any other Notice Address without providing a new Notice Address, 3 days after notice is deposited in the U.S. mail or with a courier service in the manner described above. Either party may, at any time, change its Notice Address (other than to a post office box address) by giving the other party written notice of the new address.

27. **Surrender of Premises**. At the termination of this Lease or Tenant's right of possession, Tenant shall remove Tenant's Property and any designated Required Removables from the Premises, and quit and surrender the Premises to Landlord, broom clean, and in good order, condition and repair, ordinary wear and tear and damage which Landlord is obligated to repair hereunder excepted. If Tenant fails to remove any of Tenant's Property within five (5) calendar days after termination, Landlord, at Tenant's sole cost and expense, shall be entitled to remove and store Tenant's Property. Landlord shall not be responsible for the value, preservation or safekeeping of Tenant's Property. Tenant shall pay Landlord, upon demand, the expenses and storage charges incurred. If Tenant fails to remove Tenant's Property from the Premises or storage within thirty (30) calendar days after notice, Landlord may deem all or any part of Tenant's Property to be abandoned and title to Tenant's Property shall vest in Landlord. If Tenant fails to remove any of the designated Required Removables by the Expiration Date or perform related repairs in a timely manner, Landlord may perform such work at Tenant's expense.

28. **Miscellaneous**.

28.01 Costs and Expenses; No Waiver. If either party institutes a suit against the other for violation of or to enforce any covenant, term or condition of this Lease, the prevailing party shall be entitled to all of its costs and expenses, including, without limitation, reasonable attorneys' fees. Landlord and Tenant hereby waive any right to trial by jury in any proceeding based upon a breach of this Lease. Either party's failure to declare a default immediately upon its occurrence, or delay in taking action for a default shall not constitute a waiver of the default, nor shall it constitute an estoppel.

28.02 Force Majeure. Whenever a period of time is prescribed for the taking of an action by Landlord or Tenant (other than the payment of the Security Deposit or Rent), the period of time for the performance of such action shall be extended by the number of calendar days that the performance is actually delayed due to strikes, acts of God, epidemic, pandemic or disease outbreak (including, without limitation, the COVID-19 virus), shortages of labor or materials, war, actions of government, terrorist acts, civil disturbances and other causes beyond the reasonable control of the performing party ("**Force Majeure**"). Force Majeure shall not include financial difficulties of the party required to perform.

28.03 Transfer By Landlord. Landlord shall have the right to transfer and assign, in whole or in part, all of its ownership interest, rights and obligations in the Building, Project, Property or Lease, including the Security Deposit, and upon transfer Landlord shall be released from any further obligations hereunder, and Tenant agrees to look solely to the successor in interest of Landlord for the performance of obligations accruing subsequent to such transfer and the return of any Security Deposit.

28.04 Renovation of the Project. Tenant acknowledges that portions of the Project may be under construction following Tenant's occupancy of the Premises, and that such construction may result in levels of noise, dust, obstruction of access, etc. which are in excess of that present in a fully constructed project. Tenant acknowledges and agrees that Landlord may alter, remodel, improve and/or renovate (collectively, the "Renovation Work") the Building, Premises, and/or the Project, and in connection with any Renovation Work, Landlord may, among other things, erect scaffolding or other necessary structures in the Building, or the Project, restrict access to portions of the Project, including portions of the Common Areas, or perform work in the Building and/or the Project. Landlord agrees to use commercially reasonable efforts to minimize any disruption or interference with Tenant's business operations during the course of any such Renovation Work. Tenant hereby agrees that such Renovation Work and Landlord's actions in connection with such Renovation Work shall in no way constitute a constructive eviction of Tenant nor entitle Tenant to any abatement of Rent. Landlord shall have no responsibility or liability to Tenant for any injury to or interference with Tenant's business arising from any such Renovation Work, and Tenant shall not be entitled to any damages from Landlord for loss of use of the Premises, in whole or in part, or for loss of Tenant's personal

property or improvements, resulting from the Renovation Work or Landlord's actions in connection therewith or for any inconvenience occasioned by such Renovation Work or Landlord's actions in connection therewith.

28.05 Submission of Lease; Claims By Brokers. Submission of this instrument for examination or signature by Tenant does not constitute a reservation of or an option for lease, and it is not effective as a lease or otherwise until execution and delivery by both Landlord and Tenant, and Landlord's lender holding a lien with respect to the Building has approved this Lease and the terms and conditions hereof. Tenant represents that it has dealt directly with and only with the Broker as a broker in connection with this Lease. Tenant shall indemnify and hold Landlord and the Landlord Related Parties harmless from all claims of any other brokers claiming to have represented Tenant in connection with this Lease. Landlord shall be solely responsible for the payment of any commissions due the Brokers in connection with this Lease pursuant to separate agreements between Landlord and Brokers.

28.06 Survival of Obligations. The expiration of the Term, whether by lapse of time, termination or otherwise, shall not relieve either party of any obligations which accrued prior to or which may continue to accrue after the expiration or termination of this Lease.

28.07 Quiet Enjoyment; Binding Covenants. Tenant shall, and may peacefully have, hold and enjoy the Premises, subject to the terms of this Lease, provided Tenant pays the Rent and fully performs all of its covenants and agreements. This covenant and all other covenants of Landlord shall be binding upon Landlord and its successors only during its or their respective periods of ownership of the Building.

28.08 Entire Agreement. This Lease constitutes the entire agreement between the parties and supersedes all prior agreements and understandings related to the Premises. This Lease may be modified only by a written agreement signed by Landlord and Tenant. This Lease shall be interpreted and enforced in accordance with the Laws of the state or commonwealth in which the Building is located.

28.09 Authority; PATRIOT Act; OFAC. Tenant represents and warrants to Landlord that each individual executing this Lease on behalf of Tenant is authorized to do so on behalf of Tenant and that Tenant is not, and the entities or individuals constituting Tenant or which may own or control Tenant or which may be owned or controlled by Tenant are not, among the individuals or entities identified on any list compiled pursuant to Executive Order 13224 for the purpose of identifying suspected terrorists. Tenant represents and warrants that neither Tenant nor any of its affiliates, nor any of their respective partners, members, shareholders or other equity owners, and none of their respective employees, officers, directors, representatives or agents, is a person or entity with whom U.S. persons or entities are restricted from doing business under regulations of the Office of Foreign Asset Control ("OFAC") of the Department of the Treasury (including those named on OFAC's Specially Designated and Blocked Persons List) or under any statute, executive order (including the September 24, 2001, Executive Order Blocking Property and Prohibiting Transactions with Persons Who Commit, Threaten to Commit, or Support Terrorism), or other governmental action.

28.10 Confidentiality. Landlord and Tenant acknowledge that the content of this Lease and any related documents, negotiations, and conversations are confidential information ("**Confidential Information**"). To the extent permitted by law, each party shall keep such Confidential Information strictly confidential and shall not disclose such Confidential Information to any person or entity other than their financial, legal, brokerage and space planning consultants, provided, however, that such recipients are bound by written duties of confidentiality with terms no less restrictive than those contained in this Lease. At the earlier expiration or termination of this Lease, each party shall, at the disclosing party's election, destroy or return any Confidential Information in its possession or control, and shall provide a written certification confirming same. In the event either party is required to disclose Confidential Information pursuant to subpoena or other judicial process, the party so obligated shall notify the owner of the Confidential Information without delay so the owner of the Confidential Information may seek a protective order or other legal remedy to limit or prevent the disclosure of such Confidential Information. To the extent permitted by law, the party obligated to disclose the Confidential Information shall limit its disclosure of Confidential Information solely to the extent necessary to comply with its obligations as required by law.

29. **Parking**.

29.01 Tenant's Parking Passes. During the Term of this Lease, Tenant shall purchase from Landlord, the number of parking passes specified in the Basic Lease Information hereof for use by Tenant's employees in the common parking areas for the Building within the Project, as designated by Landlord from time to time. Landlord shall at all times have the right to establish and modify the nature and extent of the parking areas for the Building and Project (including whether such areas shall be surface, underground and/or other structures) as long as Tenant is provided the number of parking passes designated in the Basic Lease Information. In addition, Landlord may, in its sole discretion, assign any unreserved and unassigned parking spaces, and/or make all or a portion of such spaces reserved.

29.02 Visitor Parking Charges. In addition to such parking passes for use by Tenant's employees, Landlord shall permit access to the parking areas for Tenant's visitors, subject to availability of spaces and payment (by validation charges or otherwise) of commercially reasonable daily visitor parking charges therefor as may be established and adjusted by Landlord from time to time.

29.03 Parking Rules. The use of the parking areas shall be subject to any commercially reasonable, uniform, and non-discriminatory rules and regulations adopted by Landlord and/or Landlord's parking operators from time to time, including any system for controlled ingress and egress and charging visitors and invitees, with appropriate provision for validation of such charges. Tenant shall not use more parking spaces than its allotment and shall not use any parking spaces specifically assigned by Landlord to other tenants of the Building or Project or for such other uses as visitor parking. Tenant's parking passes shall be used only for parking by vehicles no larger than normally sized passenger automobiles or pick-up trucks. Tenant shall not permit or allow any vehicles that belong to or are controlled by Tenant or Tenant's employees, suppliers, shippers, customers or invitees to be loaded, unloaded, or parked in areas other than those designated by Landlord for such activities. If Tenant permits or allows any of the prohibited activities described herein, including, without limitation, parking in spaces

designated as reserved spaces, illegal parking, and any non-compliance with posted signage, then Landlord shall have the right, without notice, in addition to such other rights and remedies that it may have, to remove or tow away the vehicle involved and charge the cost thereof to Tenant, which cost shall be payable by Tenant within 30 calendar days of demand by Landlord.

30. **Joint and Several Obligations**. If more than 1 person executes this Lease as Tenant, their execution of this Lease will constitute their covenant and agreement that (i) each of them is jointly and severally liable for the keeping, observing and performing of all of the terms, covenants, conditions, provisions and agreements of this Lease to be kept, observed and performed by Tenant, and (ii) the term "Tenant" as used in this Lease means and includes each of them jointly and severally. The act of or notice from, or notice or refund to, or the signature of any 1 or more of them, with respect to the tenancy of this Lease, including, but not limited to, any renewal, extension, expiration, termination or modification of this Lease, will be binding upon each and all of the persons executing this Lease as Tenant with the same force and effect as if each and all of them had so acted or so given or received such notice or refund or so signed.

31. **Counterparts; Electronic Delivery; Electronic Signatures**. This Lease may be executed in one or more counterparts, each of which shall constitute an original and all of which shall be one and the same agreement. The parties may exchange counterpart signatures by facsimile or electronic transmission and the same shall constitute delivery of this Lease with respect to the delivering party. If a variation or discrepancy among counterparts occurs, the copy of this Lease in Landlord's possession shall control. The parties shall have the right to insert the name of the people executing this Lease using an electronic signature (an "**Electronic Signature**"), and an Electronic Signature shall be binding on such party as if this Lease had been originally executed by an ink signature.

32. **Hazardous Substance Disclosure**. California law requires landlords to disclose to tenants the existence of certain Hazardous Materials (hereinafter defined). As used herein, "**Hazardous Materials**" means any chemical, substance, material, controlled substance, object, condition, waste, living organism or combination thereof, whether solid, semi-solid, liquid or gaseous, which is or may be hazardous to human health or safety or to the environment due to its radioactivity, ignitability, corrosivity, reactivity, explosivity, toxicity, carcinogenicity, mutagenicity, phytotoxicity, infectiousness or other harmful or potentially harmful properties or effects, including, without limitation, tobacco smoke, petroleum and petroleum products, asbestos, radon, polychlorinated biphenyls (PCBs), refrigerants (including those substances defined in the Environmental Protection Agency's "Refrigerant Recycling Rule", as amended from time to time) and all of those chemicals, substances, materials, controlled substances, objects, conditions, wastes, living organisms or combinations thereof which are now or become in the future listed, defined or regulated in any manner by any Laws, rules or regulations governing Hazardous Materials based upon, directly or indirectly, such properties or effects. Accordingly, the existence of gasoline and other automotive fluids, asbestos containing materials, maintenance fluids, copying fluids and other office supplies and equipment, certain construction and finish materials, tobacco smoke, cosmetics and other personal items must be disclosed. Gasoline and other automotive fluids are found in the parking areas of the Project. Cleaning, lubricating and hydraulic fluids used in the operation and maintenance of the Building are found in the utility areas of the Building not generally accessible to Building occupants or the public. Many Building occupants use copy machines and printers with associated fluids and toners, and pens, markers, inks, and office equipment that may contain Hazardous Materials. Certain adhesives, paints and other construction materials and finishes used in portions of the Building may contain Hazardous Materials. The Building may from time to time be exposed to tobacco smoke. Building occupants and other persons entering the Building from time to time may use or carry prescription and non-prescription drugs, perfumes, cosmetics and other toiletries, and foods and beverages, some of which may contain Hazardous Materials. By its execution of this Lease, Tenant acknowledges that the notice set forth hereinabove shall constitute the notice required under California Health and Safety Code Section 25915.5.

[SIGNATURES ON NEXT PAGE]

Landlord and Tenant have executed this Lease as of the day and year first above written.

LANDLORD:

FLIGHT PHASE I OWNER, LLC,
a Delaware limited liability company

By: /s/ Mark Potter, Mark Potter
Authorized Signatory

TENANT:

CHROMADEX CORPORATION,
a Delaware corporation

By: /s/ Kevin Farr
Kevin Farr
Name:

Title: Chief Executive Officer

By: /s/ Frank Jaksch
Frank Jaksch
Name:

Title: Chairman of the Board

26-2940963
Tenant's Tax ID Number (FEIN)

This Lease must be signed by two (2) officers of Tenant: one being the chairman of the board, the president or a vice president, and the other being the secretary, an assistant secretary, the chief financial officer or an assistant treasurer. If one (1) individual is signing in two (2) of the foregoing capacities, that individual must sign twice; once as one officer and again as the other officer.

EXHIBIT A

OUTLINE AND LOCATION OF PREMISES

Exhibit A is intended only to show the general layout of the space plan as of the beginning of the Term of this Lease. It does not in any way supersede any of Landlord's rights with respect to arrangements and/or locations of public parts of the Building and changes in such arrangements and/or locations. It is not to scale; any measurements or distances shown should be taken as approximate.

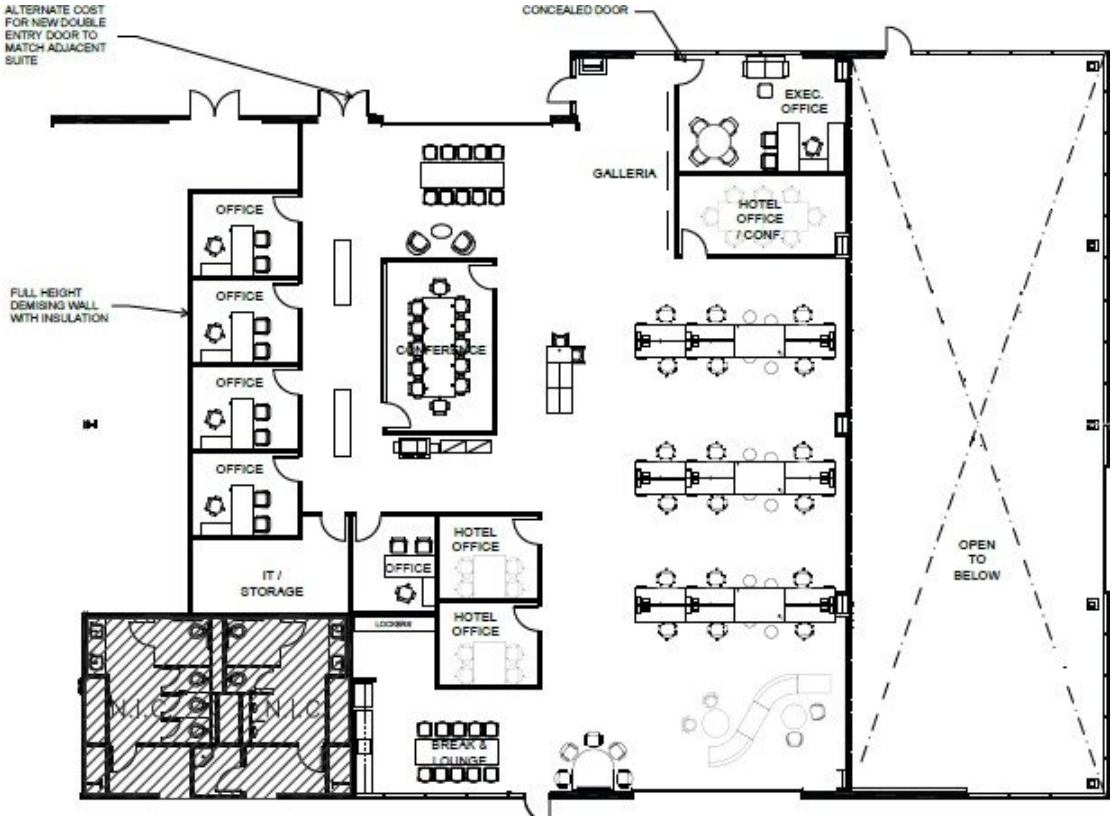


EXHIBIT B

EXPENSES AND TAXES

This Exhibit is attached to and made a part of the Lease by and between **FLIGHT PHASE I OWNER, LLC,** a Delaware limited liability company ("**Landlord**") and **CHROMADEX CORPORATION.**, a Delaware corporation ("**Tenant**") for space in the Building located at 1735 Flight Way, Tustin, California.

1. **Payments**.

1.01 Tenant shall pay Tenant's Pro Rata Share of Expenses (defined below) for each calendar year during the Term and also Tenant's Pro Rata Share of Taxes (defined below) for each calendar year during the Term. Landlord shall provide Tenant with a good faith estimate of the Expenses and Taxes for each calendar year during the Term. On or before the first day of each month, Tenant shall pay to Landlord a monthly installment equal to one- twelfth of Tenant's Pro Rata Share of Landlord's estimate of Expenses and Taxes. After its receipt of the revised estimate, Tenant's monthly payments shall be based upon the revised estimate. If Landlord does not provide Tenant with an estimate of the Expenses or the Taxes by January 1 of a calendar year, Tenant shall continue to pay monthly installments based on the previous year's estimate(s) until Landlord provides Tenant with the new estimate. The failure of Landlord to timely furnish any such statement for any year shall not preclude Landlord from enforcing its rights to collect any Expenses or Taxes under this Exhibit B.

1.02 As soon as is practical following the end of each calendar year, but no later than May 1st of each calendar year, Landlord shall furnish Tenant with a statement of the actual Expenses and the actual Taxes for the prior calendar year. If the estimated Expenses or estimated Taxes for the prior calendar year is more than the actual Expenses or actual Taxes, as the case may be, for the prior calendar year, Landlord shall either provide Tenant with a refund or apply any overpayment by Tenant against Additional Rent due or next becoming due, provided if the Term expires before the determination of the overpayment, Landlord shall refund any overpayment to Tenant after first deducting the amount of Rent due. If the estimated Expenses or estimated Taxes for the prior calendar year is less than the actual Expenses or actual Taxes, as the case may be, for such prior year, Tenant shall pay Landlord, within 30 calendar days after its receipt of the statement of Expenses or Taxes, any underpayment for the prior calendar year. Notwithstanding the foregoing to the contrary, Tenant shall not be responsible for any Expenses or Taxes which were first billed to Tenant more than eighteen (18) months after the expiration of the applicable calendar year for which such charges were incurred.

2. **Expenses**.

2.01 "**Expenses**" shall mean all costs, fees, amounts, disbursements and expenses of every kind and nature paid or incurred by or on behalf of Landlord with respect to any calendar year in connection with the operation, ownership, maintenance, insurance, restoration, management, replacement or repair of the Project, and the common area servicing the Project, or any portion thereof, in a first class manner, including, without limitation, any amounts paid or incurred with respect to: (a) all labor and labor related costs, including wages, salaries, bonuses, taxes, insurance, uniforms, training, retirement plans, pension plans and other employee benefits; provided, however, if personnel employed by Landlord provides services to the Project and/or other buildings owned by Landlord or other Landlord affiliates, the labor and labor related costs of such personnel shall be equitably prorated; (b) a commercially reasonable property management fee; (c) the cost of equipping, staffing and operating an on-site and/or off-site management office for the Project, provided if the management office services one or more other buildings or properties, the shared costs and expenses of equipping, staffing and operating such management office(s) shall be equitably prorated and apportioned between the Building and/or the other buildings or properties within or outside the Project, as applicable; (d) accounting costs; (e) the cost of services including but not limited to cleaning services (including without limitation, janitorial services, window cleaning, and garbage and refuse removal) and landscaping and hardscape expenses; (f) rental and purchase cost of parts, supplies, tools and equipment; (g) insurance premiums for property, casualty, liability, rent interruption, earthquake, flood or other types of insurance carried by Landlord from time to time, and any deductibles thereunder actually paid by Landlord with respect to the Project;
(h) electricity, water, gas and any and all other utility costs to the extent same are not paid directly by, or Landlord is not reimbursed from, any tenant outside of Expenses; (i) a commercially reasonable administration and overhead fee ("**Admin Fee**"), (j) the costs (including market rent, staffing and all operating expenses) of any on-site amenity (e.g. including but not limited to a conference center, fitness center, etc.), to the extent that the revenue generated by the use of the amenity does not cover the expense of operating the same, (k) payments under any CC&Rs pertaining to the Project or any easement, license, parking or operating agreement or similar instrument which affects the Project;
(l) the costs of repairing, restoring and maintaining the Parking Facilities of the Project, including, without limitation, the resurfacing, restriping and cleaning of such facilities; (m) any costs, fees, amounts, disbursements and expenses which are generally included in Expenses under institutional owner practices; and (n) the amortized cost of capital improvements (as distinguished from replacement parts or components installed in the ordinary course of business). The cost of capital improvements shall be amortized by Landlord over the lesser of the Payback Period (defined below) or the useful life of the capital improvement as reasonably determined by Landlord. The amortized cost of capital improvements may, at Landlord's option, include actual or imputed interest at the rate that Landlord would reasonably be required to pay to finance the cost of the capital improvement. "**Payback Period**" means the reasonably estimated period of time that it takes for the cost savings resulting from a capital improvement to equal the total cost of the capital improvement. Landlord, by itself or through an affiliate, shall have the right to directly perform, provide and be compensated for any services under this Lease. If Landlord incurs Expenses for the Building, the Project or the Property together with 1 or more other buildings or properties, whether pursuant to a reciprocal easement agreement, common area agreement or otherwise, the shared costs and expenses shall be equitably prorated and apportioned between the Building, the Project and the Property, and the other buildings or properties.

2.02 Expenses shall not include the exclusions set forth in Schedule 1 to Exhibit B.

2.03 If at any time during a calendar year the Project is not at least 95% occupied or Landlord is not supplying services to at least 95% of the total Rentable Square Footage of the Project, variable Expenses shall, at Landlord's option, be determined as if the Project had been 95% occupied and Landlord had been supplying services to 95% of the Rentable Square Footage of the Project.

3. "**Taxes**" shall mean: (a) all real property taxes and other assessments on the Building, the Project and/or Property, including, but not limited to, gross receipts taxes, assessments for special improvement districts and building improvement districts, governmental charges, fees and assessments for police, fire, traffic mitigation or other governmental service of purported benefit to the Property, taxes and assessments levied in substitution or supplementation in whole or in part of any such taxes and assessments and the Property's share of any real estate taxes and assessments under any reciprocal easement agreement, common area agreement or similar agreement as to the Property and/or the Project; (b) all personal property taxes for property that is owned by Landlord and used in connection with the operation, maintenance and repair of the Property; and (c) all costs and fees incurred in connection with seeking reductions in any tax liabilities described in (a) and (b), including, without limitation, any costs incurred by Landlord for compliance, review and appeal of tax liabilities. Without limitation, Taxes shall not include any income, capital levy, capital stock, gift, estate or inheritance tax.

4. **Audit Right**. Within one hundred fifty (150) calendar days ("**Review Period**") after Tenant's receipt of an annual statement of actual Expenses and the actual Taxes (the "**Statement**"), if Tenant disputes the amount set forth in the Statement, Tenant's employees or an independent certified public accountant (which accountant is a member of a nationally or regionally recognized accounting firm and is not retained on a contingency fee basis) designated by Tenant, may, after reasonable notice to Landlord ("**Review Notice**") and at reasonable times, inspect Landlord's records at Landlord's offices, provided that Tenant is not then in default after expiration of all applicable notice and cure periods. Tenant and such accountant or representative shall cause their respective agents and employees to maintain all information contained in Landlord's records in strict confidence. Notwithstanding the foregoing, Tenant shall only have the right to review Landlord's records one (1) time during any twelve (12) month period. If after such inspection, but within thirty (30) calendar days after the Review Period, Tenant notifies Landlord in writing ("**Dispute Notice**") that Tenant still disputes such amounts, a certification as to the proper amount shall be made in accordance with Landlord's standard accounting practices, at Tenant's expense, by an independent certified public accountant selected by Landlord and reasonably approved by Tenant and who is a member of a nationally or regionally recognized accounting firm. Tenant's failure to deliver the Review Notice within the Review Period or to deliver the Dispute Notice within thirty (30) calendar days after the Review Period shall be deemed to constitute Tenant's approval of such Statement and Tenant, thereafter, waives the right or ability to dispute the amounts set forth in such Statement. If Tenant timely delivers the Review Notice and the Dispute Notice, Landlord shall cooperate in good faith with Tenant and the accountant to show Tenant and the accountant the information upon which the certification is to be based. However, if such certification by the accountant proves that the Expenses and Taxes set forth in the Statement were overstated by more than five percent (5%), then the cost of the accountant and the cost of such certification shall be paid for by Landlord. Promptly following the parties' receipt of such certification, the parties shall make such appropriate payments or reimbursements, as the case may be, to each other, as are determined to be owing pursuant to such certification. Tenant agrees that this section shall be the sole method to be used by Tenant to dispute the amount of any Expenses or Taxes payable by Tenant pursuant to the terms of this Lease, and Tenant hereby waives any other rights at law or in equity relating thereto.

SCHEDULE 1 TO EXHIBIT B

EXCLUSIONS FROM EXPENSES

(i) Franchise taxes or taxes imposed upon or measured by the income or profits of Landlord;

(ii) Any administrative wages and salaries for employees above the level of general manager or any other general and administrative overhead (excluding the Admin Fee) of Landlord, including, but not limited to, renting commissions but excluding management fees;

(iii) The cost of any special work or special service performed for any tenant (including Tenant) whether or not at the cost of such tenant;

(iv) Amortization of any debt and other non-cash expenses except as provided for herein;

(v) The cost of alterations to tenant spaces and any fit-out in advance of and in expectation of a tenant, leasehold alterations, additions, changes, replacements, improvements and decorations made for tenants or occupants of the Building or cash allowances in lieu thereof;

(vi) Any expenses incurred in connection with any mortgage or other financing securing the land comprising the Project or the Building or interests in Landlord including, without limitation, mortgage interest or amortization, or in connection with any refinancing thereof, including, without limitation, legal, accounting, consultant, mortgage, brokerage or other expenses related thereto;

(vii) Costs covered by enforceable warranties and guaranties but only to the extent Landlord is actually reimbursed under such warranties and guaranties;

(viii) Personnel benefits, expenses and salaries of the type set forth in Section 2.01 of Exhibit B for employees above the level of general manager;

(ix) Any overhead and/or profit increment paid to Landlord or to subsidiaries or affiliates or Landlord for services in the Project to the extent the same exceed the amount which would generally be expected to be the cost of such services rendered by comparably qualified unaffiliated third parties;

(x) Any cost or expense which would otherwise be included in Expenses to the extent that Landlord is actually reimbursed from a source outside of Expenses;

(xi) Advertising, entertaining and promotional expenditures;

(xii) The cost of repairs or replacements incurred by reason of fire or other casualty or condemnation, to the extent Landlord is compensated therefor during the year to which an Expense statement relates (or would have been compensated therefor if Landlord had carried the insurance coverage required of Landlord hereunder);

(xiii) The portion of any fee or expenditure (other than a management fee) paid to Landlord or any other Landlord affiliate that is in excess of the amount which would be paid if such fee or expenditure were competitively bid;

(xiv) Costs and expenses, including, without limitation legal fees, incurred in connection with the enforcement of leases and occupancy agreements, and/or suits brought by tenants with respect to their leases or occupancy agreements, including, without limitation, disbursements in connection with any summary proceeding to dispossess any tenant or occupant;

(xv) Attorneys' fees and disbursements, costs and expenses incurred in connection with preparing and negotiating leases, amendments and modifications thereto, consents to sublease, assignments, take over or assumption fees, or any form leases with respect to the operation of the Project and disputes with tenants or occupants in the Building or Project (it being agreed that reasonable attorneys' and accountants' fees and disbursements incurred directly in connection with the operation of the Building shall be included in Expenses);

(xvi) Legal, accounting and auditing fees, other than (A) accounting and auditing fees reasonably incurred in connection with the preparation of statements required pursuant to Additional Rent or rent escalation provisions, (B) reasonable legal, accounting, consulting and appraisal fees incurred in protesting (or seeking a refund or reduction of) Taxes to the extent such protests result in a savings to Tenant in Taxes that Tenant would have otherwise paid to Landlord and provided that the amount thereof is not reimbursed to Landlord, and (C) legal, accounting and consulting fees incurred in defending a non-criminal audit relating to the operation of the Project or Building (for purposes of illustration only a sales tax audit or utility audit) conducted by a governmental entity (whether or not Landlord prevails in such audit).

(xvii) Costs relating to withdrawal liability or unfunded pension liability under the Multi-Employer Pension Plan Act or similar law;

(xviii) All costs and expenses resulting from the negligence or willful misconduct of Landlord, its employees, agents or contractors and any damages and attorneys' fees and disbursements and other costs in connection with any judgment, settlement or arbitration award resulting from any tort liability of Landlord, its employees, agents or contractors;

(xix) Any amount resulting from Landlord's failure to meet its legal or contractual obligations (e.g., failure to pay taxes, defaults under leases or agreements, etc.);

(xx) Any lease payments for equipment which, if purchased, would be specifically excluded as a capital improvement;

(xxi) Dues to lobbying associations (BOMA fees excepted) or contributions to political or charitable organizations;

(xxii) Costs incurred in connection with the acquisition, sale, financing or other disposition of air rights, transferable development rights, easements or other real property interests;

(xxiii) The cost of overtime heating, air-conditioning and ventilation (including costs related to chilled water) for any tenants of the Building;

(xxiv) Costs and expenses incurred by Landlord in connection with any obligation of Landlord to indemnify any tenant (including Tenant) of the Building pursuant to its lease or otherwise;

(xxv) Any bad debt loss, rent loss or reserves for bad debts or rent loss;

(xxvi) Expenditures for repairing and/or replacing any defect in the initial design or construction of the Building;

(xxvii) Costs incurred by Landlord which result from Landlord's or any other tenant's breach of a lease or Landlord's tortuous or negligent conduct;

(xxviii) Expenses of relocating or moving any tenant(s) of the Building; and

(xxix) Costs and expenses incurred in curing any violation of any Laws existing as of the Commencement Date or compliance with any Laws existing as of the Commencement Date, with respect to a condition existing as of the Commencement Date, unless caused by an act or omission of Tenant or any person claiming by, through or under Tenant.

EXHIBIT C

WORK LETTER
TURN KEY (NO CAP)

This Exhibit is attached to and made a part of the Lease by and between **FLIGHT PHASE I OWNER, LLC**, a Delaware limited liability company ("**Landlord**") and **CHROMADEX CORPORATION**, a Delaware corporation ("**Tenant**") for space in the Building located at 1735 Flight Way, Tustin, California.

1. Tenant shall, subject to the express provisions of this Work Letter, accept the Premises in its then condition on the delivery date, "AS-IS," "WITH ALL FAULTS" and Landlord shall have no duty or obligation to improve, or pay for any improvement for, the Premises or any portion thereof (or correct any violation of any statutes, law, ordinance, code or regulation applicable thereto).

2. Landlord, at its sole cost and expense (subject to the terms and provisions of Section 3 below) shall perform improvements to the Premises in accordance with the space plan attached hereto as Schedule 1 (the "**Space Plan**") using Building standard methods, materials and finishes that are consistent with the materials and finishes used by Landlord in the spec suite in Building A Suite 125. The improvements to be performed in accordance with the Space Plan are hereinafter referred to as the "**Landlord Work**". Landlord shall enter into a direct contract for the Landlord Work with a general contractor selected by Landlord. In addition, Landlord shall have the right to select and/or approve of any subcontractors used in connection with the Landlord Work. Landlord Work shall include any and all architectural fees, engineering fees, and city permits.

3. All other work and upgrades, subject to Landlord's approval, shall be at Tenant's sole cost and expense, plus any applicable state sales or use tax thereon, payable upon demand as Additional Rent and a construction management fee payable to Landlord equivalent to five percent (5%) of the cost of such work and upgrades (collectively, "**Tenant Excess Costs**"); provided, however, Tenant may use any available General Use Allowance (as defined in Exhibit E attached to the Lease) to fund the Tenant Excess Costs. Tenant shall be responsible for any Tenant Delay in completion of the Premises resulting from any such other work and upgrades requested or performed by Tenant.

4. Landlord's supervision or performance of any work for or on behalf of Tenant shall not be deemed to be a representation by Landlord that such work complies with applicable insurance requirements, building codes, ordinances, Laws or regulations or that the improvements constructed will be adequate for Tenant's use.

5. Landlord and Tenant agree to cooperate with each other in order to enable the Landlord Work to be performed in a timely manner and with as little inconvenience to the operation of Tenant's business as is reasonably possible. Notwithstanding anything herein to the contrary, any delay in the completion of the Landlord Work or inconvenience suffered by Tenant during the performance of the Landlord Work shall not delay the Commencement Date nor shall it subject Landlord to any liability for any loss or damage resulting therefrom or entitle Tenant to any credit, abatement or adjustment of Rent or other sums payable under the Lease.

6. The Landlord Work shall not include any of Tenant’s trade fixtures, equipment, furniture, furnishings, telephone and data equipment, or other personal property. Tenant shall assume full responsibility to ensure that all items associated with the Landlord Work are adequate to fully meet the requirements of Tenant’s intended use of the Premises.

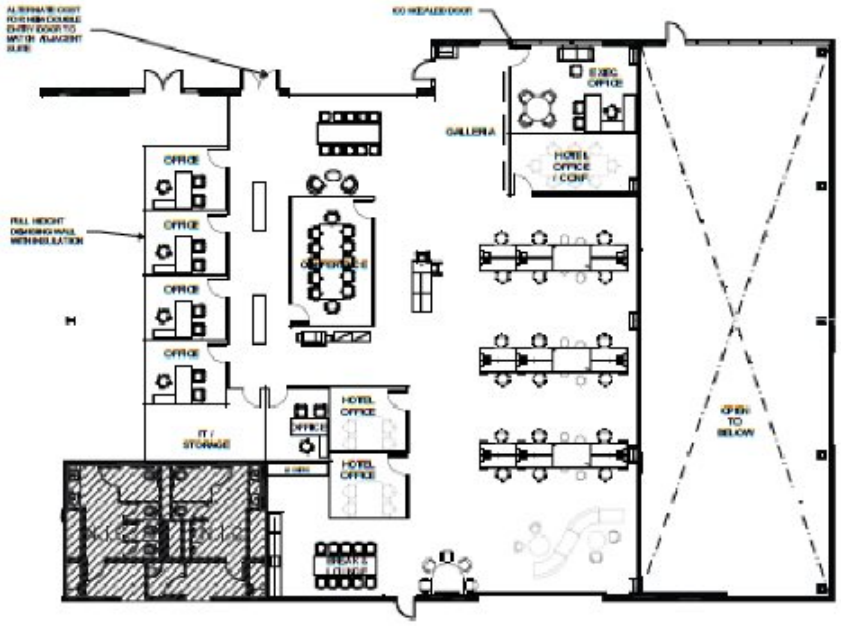
7. For purposes of this Lease, including for purposes of determining the Commencement Date (pursuant to Section 2 of the Lease), the Landlord Work shall be "**Substantially Complete**" upon the completion of the Landlord Work in the Premises pursuant to the Space Plan, with the exception of any punch list items that do not materially and adversely affect Tenant’s use and occupancy of the Premises and any tenant fixtures, work-stations, built-in furniture, or equipment to be installed by or on behalf of Tenant in accordance with the terms of this Work Letter.

8. This Exhibit shall not be deemed applicable to any additional space added to the Premises at any time or from time to time, whether by any options under the Lease or otherwise, or to any portion of the original Premises or any additions to the Premises in the event of a renewal or extension of the original Term of the Lease, whether by any options under the Lease or otherwise, unless expressly so provided in the Lease or any amendment or supplement to the Lease.

9. **Tenant's and Landlord's Representatives**. Tenant has designated David Kroes, Senior Vice President, People Matter(s) as its sole representative with respect to the matters set forth in this Work Letter, who, until further notice to Landlord, shall have full authority and responsibility to act on behalf of the Tenant as required in this Work Letter. Landlord has designated Megan Crabtree as its sole representative with respect to the matters set forth in this Work Letter who, until further notice to Tenant, shall have full authority and responsibility to act on behalf of the Landlord as required in this Work Letter.

SCHEDULE 1 TO EXHIBIT C

SPACE PLAN



7,799 RSF

SUITE 200	ChromaDex	1735 FLIGHT WAY, SUITE 200, TUSTIN CA	DATE :11/6/2021	ENVIRON
SP-1 REV. 2		100 Oceangate , Suite P-200 | Long Beach, CA 90802 | T: 562-495-7110 | mail@environarch.com | © 2021		

EXHIBIT D

BUILDING RULES AND REGULATIONS

The following rules and regulations shall apply, where applicable, to the Premises, the Building, the parking areas/garage, the Property and the appurtenances. In the event of a conflict between the following rules and regulations and the remainder of the terms of the Lease, the remainder of the terms of the Lease shall control. Capitalized terms have the same meaning as defined in the Lease. Landlord shall enforce the Rules and Regulations in a uniform and non-discriminatory manner.

1. Sidewalks, doorways, vestibules, halls, stairways and other similar areas shall not be obstructed by Tenant or used by Tenant for any purpose other than ingress and egress to and from the Premises. No rubbish, litter, trash, or material shall be placed, emptied, or thrown in those areas. At no time shall Tenant permit Tenant's employees to loiter in Common Areas or elsewhere about the Building or Property.

2. Plumbing fixtures and appliances shall be used only for the purposes for which designed, and no sweepings, rubbish, rags or other unsuitable material shall be thrown or placed in the fixtures or appliances. Damage resulting to fixtures or appliances by Tenant, its agents, employees or invitees, shall be paid for by Tenant, and Landlord shall not be responsible for the damage.

3. No signs, advertisements or notices shall be painted or affixed to windows, doors or other parts of the Building, except those of such color, size, style and in such places as are first approved in writing by Landlord. All tenant identification and suite numbers at the entrance to the Premises shall be installed by Landlord, at Tenant's cost and expense, using the standard graphics for the Building. Except in connection with the hanging of lightweight pictures and wall decorations, no nails, hooks or screws shall be inserted into any part of the Premises or Building except by the Building maintenance personnel without Landlord's prior approval, which approval shall not be unreasonably withheld.

4. Landlord may provide and maintain in the first floor (main lobby) of the Building an alphabetical directory board or other directory device listing tenants, and no other directory shall be permitted unless previously consented to by Landlord in writing.

5. Tenant shall not place any lock(s) on any door, or install any security system (including, without limitation, card key systems, alarms or security cameras), in the Premises or Building without Landlord's prior written consent, which consent shall not be unreasonably withheld, and Landlord shall have the right to retain at all times and to use keys or other access codes or devices to all locks and/or security system within and into the Premises. A reasonable number of keys to the locks on the entry doors in the Premises shall be furnished by Landlord to Tenant at Landlord's initial cost, and Tenant shall not make any duplicate keys. All keys shall be returned to Landlord at the expiration or early termination of this Lease. Further, if and to the extent Tenant re-keys, re-programs or otherwise changes any locks at the Project, Tenant shall be obligated to restore all such locks and key systems to be consistent with the master lock and key system at the Building, all at Tenant's sole cost and expense.

6. All contractors, contractor's representatives and installation technicians performing work in the Building shall be subject to Landlord's prior approval, which approval shall not be unreasonably withheld, and shall be required to comply with Landlord's standard rules, regulations, policies and procedures, which may be revised from time to time.

7. Movement in or out of the Building of furniture or office equipment, or dispatch or receipt by Tenant of merchandise or materials requiring the use of elevators, stairways, lobby areas or loading dock areas, shall be restricted to hours reasonably designated by Landlord; provided, however, the delivery of normal and customary business supplies shall not be restricted to such hours. Tenant shall obtain Landlord's prior approval by providing a detailed listing of the activity. If approved by Landlord, the activity shall be under the supervision of Landlord and performed in the manner required by Landlord. Tenant shall assume all risk for damage to articles moved and injury to any persons resulting from the activity. If equipment, property, or personnel of Landlord or of any other party is damaged or injured as a result of or in connection with the activity, Tenant shall be solely liable for any resulting damage or loss.

8. Landlord shall have the right to approve the weight, size, or location of heavy equipment or articles in and about the Premises, which approval shall not be unreasonably withheld. Damage to the Building by the installation, maintenance, operation, existence or removal of Tenant's Property shall be repaired at Tenant's sole expense.

9. Corridor doors, when not in use, shall be kept closed.

10. Tenant shall not: (i) make or permit any improper, objectionable or unpleasant noises or odors in the Building, or otherwise unreasonably interfere in any way with other tenants or persons having business with them;
(ii) solicit business or distribute, or cause to be distributed, in any portion of the Building, handbills, promotional materials or other advertising; or (iii) conduct or permit other activities in the Building that might, in Landlord's sole opinion, constitute a nuisance.

11. No animals, except those assisting handicapped persons, shall be brought into the Building or kept in or about the Premises provided that Tenant’s employees’ dogs may be brought onto the Project subject to compliance with the Dog Visitation Policy set forth below as part of this Exhibit D.

12. No inflammable, explosive or dangerous fluids or substances shall be used or kept by Tenant in the Premises, Building or about the Property, except for those substances as are typically found in similar premises used for general office purposes and are being used by Tenant in a safe manner and in accordance with all applicable Laws, rules and regulations. Tenant shall not, without Landlord's prior written consent, use, store, install, spill, remove, release or dispose of, within or about the Premises or any other portion of the Property, any asbestos-containing materials or any solid, liquid or gaseous material now or subsequently considered toxic or hazardous under the provisions of 42 U.S.C. Section 9601 et seq. or any other applicable environmental Laws which may now or later be in effect. Tenant shall comply with all Laws pertaining to and governing the use of these materials by Tenant, and shall remain solely liable for the costs of abatement and removal.

13. Tenant shall not use or occupy the Premises in any manner or for any purpose which might injure the reputation or impair the present or future value of the Premises or the Building. Tenant shall not use, or permit any part of the Premises to be used, for lodging, sleeping or for any illegal purpose.

14. Tenant shall not take any action which would violate Landlord's labor contracts or which would cause a work stoppage, picketing, labor disruption or dispute, or interfere with Landlord's or any other tenant's or occupant's business or with the rights and privileges of any person lawfully in the Building ("**Labor Disruption**"). Tenant shall take the actions necessary to resolve the Labor Disruption, and shall have pickets removed and, at the request of Landlord, immediately terminate any work in the Premises that gave rise to the Labor Disruption, until Landlord gives its written consent for the work to resume. Tenant shall have no claim for damages against Landlord or any of the Landlord Related Parties, nor shall the Commencement Date of the Term be extended as a result of the above actions.

15. Tenant shall not install, operate or maintain in the Premises or in any other area of the Building, electrical equipment that would overload the electrical system beyond its capacity for proper, efficient and safe operation as determined solely by Landlord. Tenant shall not furnish cooling or heating to the Premises, including, without limitation, the use of electronic or gas heating devices, portable coolers (such as "move 'n cools") or space heaters, without Landlord's prior written consent. Tenant shall not use more than its proportionate share of telephone lines and other telecommunication facilities available to service the Building.

16. Tenant shall not operate or permit to be operated a coin or token operated vending machine or similar device (including, without limitation, telephones, lockers, toilets, scales, amusement devices and machines for sale of beverages, foods, candy, cigarettes and other goods), except for machines for the exclusive use of Tenant's employees and invitees.

17. Bicycles and other vehicles are not permitted inside the Building or on the walkways outside the Building, except in areas designated by Landlord.

18. Landlord may from time to time adopt systems and procedures for the security and safety of the Building, its occupants, entry, use and contents. Tenant, its agents, employees, contractors, guests and invitees shall comply with Landlord's systems and procedures.

19. Landlord shall have the right to prohibit the use of the name of the Building or any other publicity by Tenant that in Landlord's reasonable opinion may impair the reputation of the Building or its desirability. Upon written notice from Landlord, Tenant shall refrain from and discontinue such publicity immediately.

20. Neither Tenant nor its agents, employees, contractors, guests or invitees shall smoke or permit smoking in the Common Areas, unless the Common Areas have been declared a designated smoking area by Landlord, nor shall the above parties allow smoke from the Premises to emanate into the Common Areas or any other part of the Building. Landlord shall have the right to designate the Building (including the Premises) as a non-smoking building.

21. Landlord shall have the right to designate and approve standard window coverings for the Premises and to establish rules to assure that the Building presents a uniform exterior appearance. Tenant shall ensure, to the extent reasonably practicable, that window coverings are closed on windows in the Premises while they are exposed to the direct rays of the sun.

22. Deliveries to and from the Premises shall be made only at the times, in the areas and through the entrances and exits reasonably designated by Landlord. Tenant shall not make deliveries to or from the Premises in a manner that might interfere with the use by any other tenant of its premises or of the Common Areas, any pedestrian use, or any use which is inconsistent with good business practice.

23. The work of cleaning personnel shall not be hindered by Tenant after 5:30 P.M., and cleaning work may be done at any time when the offices are vacant. Windows, doors and fixtures may be cleaned at any time. Tenant shall provide adequate waste and rubbish receptacles to prevent unreasonable hardship to the cleaning service.

24. Tenant shall at all times reasonably comply with, and shall cause its employee, agents and invitees to comply with such governmental and regulatory orders, laws, programs, procedures and protocols as may be implemented from time to time at or with respect to the Building in order to address any events or circumstances that may pose danger or risk to persons or property relating to community health emergencies, including epidemic, quarantine, or any infectious disease-related outbreak. Such cooperation and compliance may include compliance with reasonable Building shutdown orders and reduced access to use of Common Areas, parking facilities, elevators and other Building systems and amenities, and may also include voluntary participation in screening programs intended to identify those persons who may present risk of contagion of infectious diseases and conditions. Tenant shall also immediately notify Landlord or Landlord's property manager of any persons entering the Building that have a contagious condition related to a pandemic or other health emergency. In the event Tenant becomes aware that an employee or agent of

Tenant that entered the Building or Tenant's Premises had contracted a contagious condition related to a pandemic or other health emergency, Tenant shall immediately notify Landlord and the Building's Property Manager, and in such an event the Premises, Common Areas on the Tenant's floor, and affected elevators cabs will be thoroughly cleaned and disinfected at Tenant's expense based upon Landlord's out-of-pocket cost. Landlord will not include in Tenant's Expenses Common Area disinfecting that is for the exclusive benefit of one tenant, or that is paid for or the responsibility of another tenant of the Building. Tenant shall also follow (and shall cause its employees and invitees to follow) County Health and CDC Guidelines with regard to quarantine and isolation of all persons coming into contact with the infected person(s). Notwithstanding the foregoing, Landlord acknowledges if there is governmental restriction(s) imposed related to limiting access to the Building, Landlord shall reasonably cooperate with Tenant to provide Tenant with the ability to access its servers and equipment if necessary.

PARKING RULES AND REGULATIONS

(i) Landlord reserves the right to establish and reasonably change the hours for the parking areas, on a uniform and non-discriminatory basis, from time to time. Tenant shall not store or permit its employees to store any automobiles in the parking areas without the prior written consent of the operator. Except for emergency repairs, Tenant and its employees shall not perform any work on any automobiles while located in the parking areas, or on the Property or the Project. If it is necessary for Tenant or its employees to leave an automobile in the Parking Facility overnight, Tenant shall provide the operator with prior notice thereof designating the license plate number and model of such automobile.

(ii) Cars must be parked entirely within the stall lines painted on the floor, and only small cars may be parked in areas reserved for small cars.

(iii) All directional signs and arrows must be observed.

(iv) The speed limit shall be 5 miles per hour.

(v) Parking spaces reserved for handicapped persons must be used only by vehicles properly designated.

(vi) Parking is prohibited in all areas not expressly designated for parking, including without limitation:

(a) areas not striped for parking

(b) aisles

(c) where "no parking" signs are posted

(d) ramps

(e) loading zones

(vii) Parking stickers, key cards or any other devices or forms of identification or entry supplied by the operator shall remain the property of the operator. Such device must be displayed as requested and may not be mutilated in any manner. The serial number of the parking identification device may not be obliterated. Parking passes and devices are not transferable and any pass or device in the possession of an unauthorized holder will be void.

(viii) Parking areas managers or attendants are not authorized to make or allow any exceptions to these Rules.

(ix) Every parker is required to park and lock his/her own car.

(x) Loss or theft of parking pass, identification, key cards or other such devices must be reported to Landlord and to the parking areas manager immediately. Any parking devices reported lost or stolen found on any authorized car will be confiscated and the illegal holder will be subject to prosecution. Lost or stolen passes and devices found by Tenant or its employees must be reported to the office of the parking areas immediately.

(xi) Washing, waxing, cleaning or servicing of any vehicle by the customer and/or his agents is prohibited. Parking spaces may be used only for parking automobiles.

(xii) Tenant agrees to acquaint all persons to whom Tenant assigns a parking space with these Rules.

A. TENANT ACKNOWLEDGES AND AGREES THAT, TO THE FULLEST EXTENT PERMITTED BY LAW, EXCEPT AS TO THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF LANDLORD OR LANDLORD'S AGENTS AND EMPLOYEES, LANDLORD SHALL NOT BE RESPONSIBLE FOR ANY LOSS OR DAMAGE TO TENANT OR TENANT'S PROPERTY (INCLUDING, WITHOUT LIMITATIONS, ANY LOSS OR DAMAGE TO TENANT'S AUTOMOBILE OR THE CONTENTS THEREOF DUE TO THEFT, VANDALISM OR ACCIDENT) ARISING FROM OR RELATED TO TENANT'S USE OF THE PARKING AREAS OR EXERCISE OF ANY RIGHTS UNDER THIS PARKING AGREEMENT. THE LIMITATION ON LANDLORD'S LIABILITY UNDER THE PRECEDING SENTENCE SHALL NOT APPLY HOWEVER TO LOSS OR DAMAGE ARISING DIRECTLY FROM LANDLORD'S WILLFUL MISCONDUCT.

B. Without limiting the provisions of Paragraph A above, Tenant hereby voluntarily releases, discharges, waives and relinquishes any and all actions or causes of action for personal injury or property damage occurring to Tenant arising as a result of parking in the parking areas or any activities incidental thereto, wherever or however the same may occur, and further agrees that Tenant will not prosecute any claim for personal injury or property damage against Landlord or any of its officers, agents, servants or employees for any said causes of action. It is the intention of Tenant by this instrument, to exempt and relieve Landlord from liability for personal injury or property damage caused by negligence. If Tenant fails to comply with the parking rules and regulations set forth herein, Landlord shall have the right to take such action as may be necessary to enforcement thereof, which may include the towing of vehicles, attachment of wheel immobilizer units (boots) and the like.

C. The provisions of Section 29 of the Lease are hereby incorporated by reference as if fully recited.

By executing the Lease to which this Exhibit D is attached, Tenant acknowledges that it has read and agreed to be bound by the forgoing Building Rules and Regulations. Tenant further confirms that it has been fully and completely advised of the potential dangers incidental to parking in the parking areas and the terms and conditions set forth above.

DOG VISITATION POLICY

Dog Visitation Policy

Bringing a dog to work is a privilege and requires complete responsibility on the part of the person bringing the dog to work (each, an "**Owner**"). Owners must recognize that (1) not all employees and/or visitors and/or other occupants of the Project appreciate dogs in the office, and (2) certain employees and/or visitors and/or other occupants of the Project may have intolerance to dogs, such as allergy, fear of, or phobia. This policy does not apply to the use of service animals at work, and appropriate arrangements will be determined in such cases. Owners are required to follow these rules when bringing a dog to the Project and such other rules as may be implemented by Landlord and/or Tenant from time to time.

Prerequisites for a Dog to be at the Project

- Properly licensed and vaccinated with proof of such license and vaccination available upon request.
- Free from contagious illness and internal and external parasites including fleas.
- Exhibits appropriate office behavior: Walks beside you on a leash; reliably housebroken; remains calm when left alone; well socialized to people, places, sounds, and objects; enjoys being around people.
- Does not exhibit inappropriate office behavior (including but not limited to): aggression, growling, barking, chasing, biting, nipping, over-exuberance, dominance, territorialism, running away, having accidents (i.e., urinating indoors), chewing or damaging office furniture or equipment, whining, howling, or otherwise interfering with an employee's ability to do their work. Inappropriate office behavior by a dog will result in the animal no longer being allowed in the Building as reasonably determined by Landlord.
- Dogs must be washed regularly.

Dog Boundaries at Work

- Dogs must be on a leash or confined to a crate while entering and leaving the Project and may not be left alone in any Common Area.
- Dogs must not be in or near any cafeteria, break rooms, bathrooms, or conference rooms.
- Dogs must be taken to relieve themselves in the designated area only and shall not relieve themselves in any other area in the Project. If a dog relieves itself in any other areas in the Project other than the area designated by Landlord, then Tenant shall immediately notify property management in order for property management to clean the areas affected. In such case, Tenant shall pay all charges associated with cleaning and removing any waste generated by such dogs.
- In no event shall Tenant or its employees collectively bring more than five (5) dogs at any one time to the Project. Any dogs that are brought to the Project must first be registered with the property manager and, in connection with such registration, the dog owner shall provide evidence of liability insurance for the dog, vaccination records and any other information reasonably requested by Landlord.

Expectations of Dog Owners

- Owners must supervise their dogs at all times, or appoint a willing and able watcher.
- Owners must clean up after their dogs and bring supplies such as pet waste bags.
- Owners should maintain adequate liability insurance coverage against dog mishaps and take full responsibility.

EXHIBIT E

ADDITIONAL PROVISIONS

This Exhibit is attached to and made a part of the Lease by and between **FLIGHT PHASE I OWNER, LLC,** a Delaware limited liability company ("**Landlord**") and **CHROMADEX CORPORATION**, a Delaware corporation ("**Tenant**") for space in the Building located at 1735 Flight Way, Tustin, CA.

1. **Abatement of Rent**. Provided that Tenant faithfully performs all of the terms and conditions of this Lease, Landlord hereby agrees to abate (a) Tenant's obligation to pay Base Rent for the second (2nd) through the thirteenth (13th) full calendar months of the initial Term and (b) Tenant's obligation to pay Tenant's Pro Rata Share of Taxes and Expenses for the second (2nd) through the seventh (7th) full calendar months of the initial Term. During such abatement period, Tenant shall still be responsible for the payment of all of its other monetary obligations under this Lease including, without limitation, the payment of Tenant's Pro Rata Share of Taxes and Expenses for the eighth (8th) through the thirteenth (13th) full calendar months of the initial Term. In the event of a Default by Tenant under the terms of this Lease that results in early termination pursuant to the provisions of Section 19 of this Lease, then as a part of the recovery set forth in Section 19 of this Lease, Landlord shall be entitled to recover the Base Rent and Tenant's Pro Rata Share of Taxes and Expenses that were abated under the provisions of this Section 1.

2. **Beneficial Occupancy Period**. Notwithstanding anything to the contrary contained herein, Tenant shall have the right to commence business from the Premises and install furniture, fixtures and equipment in the Premises during the period (the "**Beneficial Occupancy Period**") from the date of Substantial Completion of the Landlord Work through the day prior to the Commencement Date, provided that (a) a certificate of occupancy (or its equivalent) shall have been issued by the appropriate governmental authorities for the Premises, and (b) all of the terms and conditions of this Lease shall apply during the Beneficial Occupancy Period (if any), except that Tenant's obligation to pay Base Rent and Tenant's Pro Rata Share of Expenses and Taxes shall not apply during the Beneficial Occupancy Period. Prior to Tenant's entry into the Premises as permitted by the terms of this Section 2, Tenant shall submit certificates of insurance reasonably acceptable to Landlord.

3. **General Use Allowance**. Landlord hereby agrees to reimburse Tenant for costs (collectively, "**FF&E Costs**") up to $77,990.00 (the "**General Use Allowance**") that Tenant actually incurs in purchasing and installing furniture, fixtures and equipment in the Premises, moving into the Premises and for any Tenant Excess Costs (as defined in Exhibit C attached to the Lease). Landlord shall reimburse Tenant for FF&E Costs actually incurred by Tenant, up to the General Use Allowance, within thirty (30) calendar days after Landlord's receipt of invoices evidencing Tenant's FF&E Costs. Any portion of the General Use Allowance that is not so requested by Tenant on or before February 29, 2024 ("**Allowance Deadline**") shall revert to Landlord. If Tenant uses less than the General Use Allowance for FF&E Costs, Tenant may request in a written notice ("**Rent Credit Notice**") delivered to Landlord on or before Allowance Deadline, that any unused portion of the General Use Allowance be applied as a credit against Tenant's Base Rent obligations. If Tenant timely and properly delivers the Rent Credit Notice to Landlord, the credit against Base Rent shall commence following the later of (a) the first day of the calendar month following the delivery of the Rent Credit Notice to Landlord or (b) August 1, 2023. Any portion of the General Use Allowance that is not so requested by Tenant on or before the Allowance Deadline shall revert to Landlord.

4. **Identity Signage**. Landlord shall provide Tenant with, at Tenant's expense, (a) one Building standard Premises suite identification signage and (b) Building-standard inclusion on any Building directory board signage.

5. **Conference Center Usage**. Subject to availability and payment by Tenant for any Tenant requested special services and the standard take down and cleaning costs charge, during the Term of the Lease, Landlord shall provide Tenant with use of a single room within the Conference Center at no charge on one (1) day per calendar month on a non-cumulative basis (i.e. Tenant may not carry any unused free conference room usage forward for use in future calendar months).

6. **Building Systems Condition**. Landlord represents and warrants to Tenant that on the date of delivery of the Premises to Tenant (the "**General Warranty Date**"), the base shell and core of the Building and the building systems serving the Premises installed as part of Landlord's base building work (including, without limitation, the roof and floor slabs, fire/life safety system, the lighting and heating, ventilation and air conditioning) shall be in good working order in effect as of the General Warranty Date (collectively, the "**Landlord Warranty**"). In the event that it is determined that the Landlord Warranty was untrue at any time on or before the General Warranty Date, Landlord shall not be in default under this Lease if after Landlord receives written notice of the Landlord Warranty that is untrue, Landlord shall promptly take all actions necessary to correct the untrue Landlord Warranty at Landlord's sole cost and expense. If the Landlord Warranty is untrue (an "**Untrue Landlord Warranty**"), Tenant shall, as Tenant's sole and exclusive remedy, notify Landlord in writing (the "**Warranty Notice**") within thirty (30) days after the later of the General Warranty Date, time being of the essence (the "**Warranty Notice Date**"), of the details pertaining to each Untrue Landlord Warranty. The Warranty Notice shall state the specific way in which the Landlord Warranty is untrue. Landlord shall have no responsibility to correct any Untrue Landlord Warranty unless Tenant notifies Landlord on or before the Warranty Notice Date in a Warranty Notice of the Untrue Landlord Warranty, and if Tenant notifies Landlord of the Untrue Landlord Warranty after the Warranty Notice Date, Landlord shall have no obligation pursuant to this Section 6 to correct the Untrue Landlord Warranty. Notwithstanding the foregoing, Landlord shall have no obligation pursuant to this Section 6 to correct an Untrue Landlord Warranty if the repair is necessitated by the negligence or misuse of Tenant or its agents, employees or contractors.

EXHIBIT F

INTENTIONALLY OMITTED

EXHIBIT G

STATEMENT OF TENANT REGARDING LEASE COMMENCEMENT

The undersigned as Tenant under that certain Office Lease Agreement made and entered into by and between **FLIGHT PHASE I OWNER, LLC,** a Delaware limited liability company, as Landlord, and the undersigned, as Tenant (the "**Lease**"), hereby certifies that:

1) The undersigned has entered into occupancy of the Premises described in said Lease on __, 20__.

2) All conditions under said Lease to be performed by Landlord have been satisfied, and on this date there are not existing defenses or offsets which the undersigned has against the enforcement of said Lease by Landlord.

3) The Term of the Lease commenced, or will commence, as of__, 20_, which date shall be the "**Commencement Date**" under the terms of the Lease.

4) The "**Expiration Date**" of the Lease is__, 20_, subject to extension or earlier termination in accordance with the terms and conditions of the Lease.

5) Tenant accepts the Premises in its "**As-Is**" condition as of the date of Tenant's possession thereof.

6) Tenant's obligation to pay Base Rent will commence on__, 20_. The Abatement Period (as defined in Exhibit E of the Lease) will commence on__, and end on__, 20_.

7) Tenant's obligation to pay Tenant's Pro Rata Share of Expenses and Taxes will commence on __, 20__.

Yours very truly,

__, a ____

By:__

Name: __

Its: __

RIDER NO. 1 TO OFFICE LEASE

EXTENSION OPTION RIDER

This Rider No. 1 is made and entered into by and between **FLIGHT PHASE I OWNER, LLC,** a Delaware limited liability company ("**Landlord**"), and **CHROMADEX CORPORATION**, a Delaware corporation ("**Tenant**"), as of the day and year of the Lease between Landlord and Tenant to which this Rider No. 1 is attached. Landlord and Tenant hereby agree that, notwithstanding anything contained in the Lease to the contrary, the provisions set forth below shall be deemed to be part of the Lease and shall supersede any inconsistent provisions of the Lease. All references in the Lease and in this Rider No. 1 to the "**Lease**" shall be construed to mean the Lease (and all exhibits and Riders attached thereto), as amended and supplemented by this Rider No. 1. All capitalized terms not defined in this Rider No. 1 shall have the same meaning as set forth in the Lease.

1. Landlord hereby grants to Tenant one (1) option (the "**Extension Option**") to extend the Term of the Lease for an additional period of five (5) years (the "**Option Term**"), on the same terms, covenants and conditions as provided for in the Lease during the initial Term, except for the Monthly Base Rent, which shall equal the greater of (a) the Monthly Base Rent payable by Tenant during the last month of the then current Term immediately preceding the Option Term or (b) the "fair market rental rate" for the Premises for the Option Term as defined and determined in accordance with the provisions of Section 3 below.

2. The Extension Option must be exercised, if at all, by an irrevocable written exercise notice ("**Extension Notice**") delivered by Tenant to Landlord no sooner than that date which is eighteen (18) months and no later than that date which is twelve (12)months prior to the expiration of the then current term of the Lease. The Extension Option shall, at Landlord's sole option, not be deemed to be properly exercised if, at the time the Extension Option is exercised or on the scheduled commencement date for the Option Term, (a) Tenant has failed to cure a Default pursuant to Section 18 of the Lease, or (b) Tenant has assigned all or any portion of the Lease or its interest therein to other than an Affiliated Assignee or sublet all or any portion of the Premises to other than an Affiliate. Provided Tenant has properly and timely exercised the Extension Option, the then current term of the Lease shall be extended by the Option Term, and all terms, covenants and conditions of the Lease shall remain unmodified and in full force and effect, except that the Monthly Base Rent shall be as set forth above.

3. If Landlord determines that the Monthly Base Rent for the Option Term shall be the Monthly Base Rent payable by Tenant during the last month of the then current Term pursuant to Section 1(a) above, such determination shall be conclusive, Tenant shall have no right to object thereto, and the following provisions regarding the determination of the fair market rental rate shall not apply. If, however, Landlord determines that the Monthly Base Rent for the applicable Option Term shall be the fair market rental rate pursuant to Section 1(b) above, then such fair market rental rate shall be determined in accordance with the Fair Market Rental Rate Rider attached to the Lease as Rider No. 2. The Monthly Base Rent for the Option Term shall include the periodic rental increases that would be included for space leased for the period of the Option Term.

4. Notwithstanding the fair market rental rate determined pursuant to Section 3 above, in no event shall the Monthly Base Rent payable during the Option Term be less than the Monthly Base Rent payable during the last month of the immediately preceding Term.

5. Tenant's Extension Option is further subject to the terms and conditions of Rider No. 3 attached hereto.

RIDER NO. 2 TO OFFICE LEASE

FAIR MARKET RENTAL RATE

This Rider No. 2 is made and entered into by and between **FLIGHT PHASE I OWNER, LLC,** a Delaware limited liability company ("**Landlord**"), and **CHROMADEX CORPORATION**, a Delaware corporation ("**Tenant**"), as of the day and year of the Lease between Landlord and Tenant to which this Rider No. 2 is attached. Landlord and Tenant hereby agree that, notwithstanding anything contained in the Lease to the contrary, the provisions set forth below shall be deemed to be part of the Lease and shall supersede any inconsistent provisions of the Lease. All references in the Lease and in this Rider No. 2 to the "**Lease**" shall be construed to mean the Lease (and all exhibits and Riders attached thereto), as amended and supplemented by this Rider No. 2. All capitalized terms not defined in this Rider No. 2 shall have the same meaning as set forth in the Lease.

1. The term "fair market rental rate" as used in the Lease and any Rider attached thereto shall mean the annual amount per square foot, projected during the Option Term that a willing, non-equity renewal tenant (excluding sublease and assignment transactions) would pay, and a willing, institutional landlord of a comparable Class "A" office building located in the John Wayne Airport market area (the "**Comparison Area**") would accept, in an arm's length transaction (what Landlord is accepting in then current transactions for the buildings located in the Project may be used for purposes of projecting rent for the Option Term), for space of comparable size, quality and floor height as the Premises, taking into account the age, quality and layout of the existing improvements in the Premises, and taking into account items that professional real estate brokers or professional real estate appraisers customarily consider, including, but not limited to, rental rates, space availability, tenant size, tenant improvement allowances, project amenities, parking charges and any other lease considerations, if any, then being charged or granted by Landlord or the lessors of such similar office buildings. All economic terms other than Monthly Base Rent, such as tenant improvement allowance amounts, if any, operating expense allowances, parking charges, etc., will be established by Landlord and will be factored into the determination of the fair market rental rate for the Option Term. Accordingly, the fair market rental rate will be an effective rate, not specifically including, but accounting for, the appropriate economic considerations described above. The fair market rental rate shall include the periodic rental increases that would be included for space leased for the period of the Option Term.

2. In the event the determination of fair market rental rate is required under the Lease (as set forth in Rider No. 1 above), Landlord shall provide written notice of Landlord's determination of the fair market rental rate ("**Landlord Rent Notice**") not later than the date that is eleven (11) months prior to the expiration of the initial Term of the Lease. Tenant shall have ten (10) calendar days after receipt of Landlord's notice of the fair market rental rate within which to accept or reject such fair market rental rate by delivering written notice ("**Tenant Rent Response Notice**") thereof to Landlord. For purposes of this Rider No. 2, the last day of such 10-calendar day period shall be referred herein as the "**Objection Date**". Tenant's failure to deliver the Tenant Rent Response Notice on or before the Objection Date shall be deemed to constitute Tenant's acceptance of the fair market rental rate set forth in the Landlord Rent Notice. If Tenant timely objected in the Tenant Rent Response Notice to Landlord's fair market rental rate, the parties shall follow the procedure and the fair market rental rate shall be determined as set forth in Section 3 below.

3. If Tenant timely and appropriately objects to Landlord's determination of the fair market rental rate in the Tenant Rent Response Notice, Landlord and Tenant shall attempt to agree upon the fair market rental rate using their best good-faith efforts. If Landlord and Tenant fail to reach agreement within twenty-one (21) calendar days following the delivery of the Tenant Rent Response Notice ("**Outside Agreement Date**"), then each party shall make a separate determination of the fair market rental rate which shall be submitted to each other and to arbitration in accordance with the following items (i) through (vii):

(i) Landlord and Tenant shall each appoint, within ten (10) calendar days of the Outside Agreement Date, one arbitrator who shall by profession be a current real estate broker or appraiser of comparable commercial properties in the Comparison Area, and who has been active in such field over the last ten (10) years. The determination of the arbitrators shall be limited solely to the issue of whether Landlord's or Tenant's submitted fair market rental rate is the closest to the actual fair market rental rate as determined by the arbitrators, taking into account the requirements of Section 1 above (i.e., the arbitrators may only select Landlord's or Tenant's determination of the fair market rental rate and shall not be entitled to make a compromise determination).

(ii) The two (2) arbitrators so appointed shall within five (5) business days of the date of the appointment of the last appointed arbitrator agree upon and appoint a third (3rd) arbitrator who shall be qualified under the same criteria set forth hereinabove for qualification of the initial two (2) arbitrators.

(iii) The three (3) arbitrators shall within fifteen (15) calendar days of the appointment of the third (3rd) arbitrator reach a decision as to whether the parties shall use Landlord's or Tenant's submitted fair market rental rate, and shall notify Landlord and Tenant thereof.

(iv) The decision of the majority of the three (3) arbitrators shall be binding upon Landlord and Tenant.

(v) If either Landlord or Tenant fails to appoint an arbitrator within ten (10) calendar days after the applicable Outside Agreement Date, the arbitrator appointed by one (1) of them shall reach a decision, notify Landlord and Tenant thereof, and such arbitrator's decision shall be binding upon Landlord and Tenant.

(vi) If the two (2) arbitrators fail to agree upon and appoint a third (3rd) arbitrator, or both parties fail to appoint an arbitrator, then the appointment of the third (3rd) arbitrator or any arbitrator shall be dismissed and the matter to be decided shall be forthwith submitted to arbitration under the provisions of the American Arbitration Association, but subject to the instruction set forth in this Section 3.

(vii) The cost of arbitration shall be paid by Landlord and Tenant equally.

RIDER NO. 3 TO OFFICE LEASE

OPTIONS IN GENERAL

This Rider No. 3 is made and entered into by and between **FLIGHT PHASE I OWNER, LLC,** a Delaware limited liability company ("**Landlord**"), and **CHROMADEX CORPORATION**, a Delaware corporation ("**Tenant**"), as of the day and year of the Lease between Landlord and Tenant to which this Rider No. 3 is attached. Landlord and Tenant hereby agree that, notwithstanding anything contained in the Lease to the contrary, the provisions set forth below shall be deemed to be part of the Lease and shall supersede any inconsistent provisions of the Lease. All references in the Lease and in this Rider No. 3 to the "**Lease**" shall be construed to mean the Lease (and all exhibits and Riders attached thereto), as amended and supplemented by this Rider No. 3. All capitalized terms not defined in this Rider No. 3 shall have the same meaning as set forth in the Lease.

(a) **Definition**. As used in this Lease and any Rider or Exhibit attached hereto, the word "**Option**" shall mean all options granted to Tenant under the Lease, including the Extension Option pursuant to Rider No. 1 attached hereto.

(b) **Option Personal**. The Option granted to Tenant is personal to the original Tenant executing this Lease (the "**Original Tenant**") and any Affiliated Assignee and may be exercised only by the Original Tenant or an Affiliated Assignee while occupying the entire Premises (including any space occupied by an Affiliate pursuant to any then existing sublease(s)) and may not be exercised or be assigned, voluntarily or involuntarily, by any person or entity other than the Original Tenant or an Affiliated Assignee. The Option granted to Tenant under this Lease is not assignable separate and apart from this Lease, nor may the Option be separated from this Lease in any manner, either by reservation or otherwise.

(c) **Effect of Default on Options**. Tenant will have no right to exercise any Option, notwithstanding any provision of the grant of option to the contrary, and Tenant's exercise of any Option may be nullified by Landlord and deemed of no further force or effect, if (i) Tenant is in Default of any monetary obligation or material non-monetary obligation under the terms of this Lease as of Tenant's exercise of the Option in question or at any time after the exercise of any such Option and prior to the commencement of the Option event, or (ii) Tenant has been in uncured Monetary Default under the Lease more than twice prior to the date of delivery of the Extension Notice.

(d) **Option as Economic Term**. The Option is hereby deemed an economic term which Landlord, in its sole and absolute discretion, may or may not offer in conjunction with any future extensions of the Term.

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SUBSIDIARIES OF THE REGISTRANT

(As of December 31, 2021)

Entity Name	President Company / Owner	Jurisdiction of Formation
ChromaDex, Inc.	ChromaDex Corporation	California
ChromaDex International, Inc.	ChromaDex Corporation	Cayman Islands
ChromaDex Analytics, Inc.	ChromaDex, Inc.	Nevada
ChromaDex Europa B.V.	ChromaDex, Inc.	Netherlands
Chromadex Sağlık Ürünleri Anonim Şirketia	ChromaDex, Inc.	Turkey
ChromaDex UK Limited	ChromaDex, Inc.	United Kingdom
Asia Pacific Scientific, Inc.	ChromaDex International, Inc.	Cayman Islands
ChromaDex Asia Limited	ChromaDex International, Inc.	Hong Kong
ChromaDex Asia Pacific Ventures Limited	Asia Pacific Scientific, Inc.	Hong Kong
ChromaDex Trading (Shanghai) Co., Ltd.	ChromaDex Asia Limited	China

EXHIBIT 23.1

Independent Registered Public Accounting Firm's Consent

We consent to the incorporation by reference in the Registration Statement of ChromaDex Corporation and Subsidiaries on Form S-3 and as amended [File Nos. 333-254624, 333-239144, 333-238570, 333-233729, 333-222064, 333-221245, 333-218634, and 333-176636] and on Form S-8 [File Nos. 333-248104, 333-226972, 333-223889, 333-221247, 333-221246, 333-196434, 333-168029, 333-154403, and 333-154402] of our report dated March 14, 2022, with respect to our audits of the consolidated financial statements of ChromaDex Corporation and Subsidiaries as of December 31, 2021 and December 31, 2020 and for the years ended December 31, 2021 and December 31, 2020, which report is included in this Annual Report on Form 10-K of ChromaDex Corporation and Subsidiaries for the year ended December 31, 2021.

/s/ Marcum LLP
Marcum LLP
New York, NY
March 14, 2022

EXHIBIT 31.1

Certification of the Principal Executive Officer
Pursuant to
§240.13a−14 or §240.15d−14 of the Securities Exchange Act of 1934, as amended

I, Robert Fried, certify that:

1. I have reviewed this annual report on Form 10−K of ChromaDex Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a−15(e) and 15d−15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 14, 2022

/s/ ROBERT FRIED
Robert Fried
Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

Certification of the Principal Executive Officer
Pursuant to
§240.13a−14 or §240.15d−14 of the Securities Exchange Act of 1934, as amended

I, Kevin Farr, certify that:

1. I have reviewed this annual report on Form 10−K of ChromaDex Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a−15(e) and 15d−15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 14, 2022

/s/ KEVIN FARR
Kevin Farr
Chief Executive Officer
(Principal Accounting Officer)

EXHIBIT 32.1

Certification Pursuant to 18 U.S.C. Section 1350
(as adopted pursuant to Section 906 of the Sarbanes−Oxley Act of 2002)

In connection with this annual report of ChromaDex Corporation (the "Company") on Form 10−K for the year ending December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Robert Fried, Chief Executive Officer of the Company, and Kevin Farr, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes−Oxley Act of 2002, that, to our knowledge:

1. The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: March 14, 2022

/s/ ROBERT FRIED

Robert Fried
Chief Executive Officer

/s/ KEVIN FARR

Kevin Farr
Chief Financial Officer

This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of ChromaDex Corporation under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing.