

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

FORM 10-Q

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

For the quarterly period ended March 31, 2024

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 or organization)

(I.R.S. Employer
Identification No.)

10900 Wilshire Blvd . Suite 600 , Los Angeles , California

90024

(Address of Principal Executive Offices)

(Zip Code)

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

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

Title of each class	Trading Symbol	Name of Each exchange on which registered
Common Stock, \$0.001 par value per share	CDXC	The Nasdaq Capital Market

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.					☒ Yes	☐ No
Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).					☒ Yes	☐ No
Indicate by check mark whether the registrant is a large accelerated filer, accelerated filer, non-accelerated filer, smaller reporting company or emerging growth company. See definition of "large accelerated filer, accelerated filer, smaller reporting company and emerging growth 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, indicate 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.					☐ Yes	☐ No
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).					☐ Yes	☒ No

As of May 6, 2024 there were 75,538,787 shares of the registrant's common stock issued and outstanding.

ChromaDex Corporation
Quarterly Report on Form 10-Q
For the Three Months Ended March 31, 2024
Table of Contents

PART I - Financial Information (unaudited)	Pg.
Item 1. Financial Statements (unaudited):	3
Condensed Consolidated Balance Sheets as of March 31, 2024 and December 31, 2023	3
Condensed Consolidated Statements of Operations for the three months ended March 31, 2024 and March 31, 2023	4
Condensed Consolidated Statements of Stockholders' Equity for the three months ended March 31, 2024 and March 31, 2023	5
Condensed Consolidated Statements of Cash Flows for the three months ended March 31, 2024 and March 31, 2023	6
Notes to Condensed Consolidated Financial Statements	7
Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations	25
Item 3. Quantitative and Qualitative Disclosures About Market Risk	32
Item 4. Controls and Procedures	32
PART II - Other Information	
Item 1. Legal Proceedings	32
Item 1A. Risk Factors	34
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds	53
Item 5. Other information	53
Item 6. Exhibits	54
Signatures	55

PART I

Item 1. FINANCIAL STATEMENTS (unaudited)

ChromaDex Corporation and Subsidiaries
Unaudited Condensed Consolidated Balance Sheets
(In thousands except par values, unless otherwise indicated)

	March 31, 2024	December 31, 2023
Assets		
Current assets		
Cash and cash equivalents, including restricted cash of \$ 152 for both periods presented	\$ 27,565	\$ 27,325
Trade receivables, net of allowances of \$ 87 and \$ 68 , respectively; Including receivables from Related Party of \$ 2.7 million and \$ 2.8 million, respectively	6,604	5,234
Inventories	12,495	14,525
Prepaid expenses and other assets	2,312	2,450
Total current assets	48,976	49,534
Leasehold improvements and equipment, net	2,000	2,137
Intangible assets, net	472	510
Right-of-use assets, net	2,226	2,400
Other long-term assets	405	383
Total assets	\$ 54,079	\$ 54,964
Liabilities and Stockholders' Equity		
Current liabilities		
Accounts payable	\$ 7,899	\$ 10,232
Accrued expenses	10,465	9,493
Current maturities of operating lease obligations	850	691
Current maturities of finance lease obligations	11	11
Customer deposits	227	195
Total current liabilities	19,452	20,622
Deferred revenue	3,311	3,311
Operating lease obligations, less current maturities	2,356	2,563
Finance lease obligations, less current maturities	9	12
Total liabilities	25,128	26,508
Commitments and Contingencies (Note 10)		
Stockholders' Equity		
Common stock, \$ 0.001 par value; authorized 150,000 shares; 75,153 shares and 74,981 shares issued and outstanding at March 31, 2024 and December 31, 2023, respectively	75	75
Additional paid-in capital	219,829	218,845
Accumulated deficit	(190,952)	(190,460)
Cumulative translation adjustments	(1)	(4)
Total stockholders' equity	28,951	28,456
Total liabilities and stockholders' equity	\$ 54,079	\$ 54,964

See accompanying Notes to the Unaudited Condensed Consolidated Financial Statements.

ChromaDex Corporation and Subsidiaries
Unaudited Condensed Consolidated Statements of Operations
(In thousands, except per share data)

	Three Months Ended March 31,	
	2024	2023
Sales, net	\$ 22,153	\$ 22,556
Cost of sales	8,697	9,038
Gross profit	13,456	13,518
Operating expenses:		
Sales and marketing	6,740	7,874
Research and development	2,095	1,193
General and administrative	5,352	6,419
Total operating expenses	14,187	15,486
Operating loss	(731)	(1,968)
Nonoperating income:		
Interest income, net	239	66
Net loss	\$ (492)	\$ (1,902)
Basic and diluted loss per common share attributable to ChromaDex Corporation	\$ (0.01)	\$ (0.03)
Basic and diluted weighted average common shares outstanding	75,230	74,796

See accompanying Notes to the Unaudited Condensed Consolidated Financial Statements.

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

Three Months Ended March 31, 2024

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Cumulative Translation Adjustments	Total Stockholders' Equity
	Shares	Amount				
Balance, January 1, 2024	74,981	\$ 75	\$ 218,845	\$ (190,460)	\$ (4)	\$ 28,456
Issuance of restricted stock	147	—	—	—	—	—
Share-based compensation	25	—	984	—	—	984
Translation adjustment	—	—	—	—	3	3
Net loss	—	—	—	(492)	—	(492)
Balance, March 31, 2024	75,153	\$ 75	\$ 219,829	\$ (190,952)	\$ (1)	\$ 28,951

Three Months Ended March 31, 2023

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Cumulative Translation Adjustments	Total Stockholders' Equity
	Shares	Amount				
Balance, January 1, 2023	74,567	\$ 74	\$ 214,094	\$ (185,493)	\$ (3)	\$ 28,672
Issuance of restricted stock	99	—	—	—	—	—
Share-based compensation	—	—	1,273	—	—	1,273
Translation adjustment	—	—	—	—	3	3
Adjustment to retained earnings, cumulative effect of initially adopting ASC 326	—	—	—	(29)	—	(29)
Net loss	—	—	—	(1,902)	—	(1,902)
Balance, March 31, 2023	74,666	\$ 74	\$ 215,367	\$ (187,424)	\$ —	\$ 28,017

See accompanying Notes to the Unaudited Condensed Consolidated Financial Statements.

ChromaDex Corporation and Subsidiaries
Unaudited Condensed Consolidated Statements of Cash Flows
(In thousands)

	Three Months Ended March 31,	
	2024	2023
Cash Flows From Operating Activities		
Net loss	\$ (492)	\$ (1,902)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation of leasehold improvements and equipment	178	228
Amortization of intangibles	38	41
Amortization of right of use assets	174	171
Share-based compensation expense	984	1,273
Allowance for credit losses	35	316
Non-cash financing costs	21	21
Changes in operating assets and liabilities:		
Trade receivables	(1,405)	(1,084)
Inventories	2,030	2,769
Implementation costs for cloud computing arrangement	—	(27)
Prepaid expenses and other assets	106	616
Accounts payable	(2,333)	(728)
Accrued expenses	972	1,273
Customer deposits and other	35	(6)
Operating lease liabilities	(48)	(169)
Net cash provided by operating activities	295	2,792
Cash Flows From Investing Activities		
Purchases of leasehold improvements and equipment	(41)	(91)
Net cash used in investing activities	(41)	(91)
Cash Flows From Financing Activities		
Payment of debt issuance costs	(11)	—
Principal payments on finance leases	(3)	(1)
Net cash used in financing activities	(14)	(1)
Net increase in cash and cash equivalents	240	2,700
Cash and cash equivalents, including restricted cash of \$ 152 for both periods - beginning of period	27,325	20,441
Cash and cash equivalents, including restricted cash of \$ 152 for both periods - end of period	<u>\$ 27,565</u>	<u>\$ 23,141</u>
Supplemental Disclosures of Cash Flow Information		
Cash payments for principal on operating lease liabilities	\$ 91	\$ 180
Supplemental Schedule of Noncash Operating Activity		
Adjustment to retained earnings, cumulative effect of initially adopting ASC 326	\$ —	\$ 29

See accompanying Notes to the Unaudited Condensed Consolidated Financial Statements.

Notes to the Unaudited Condensed Consolidated Financial Statements

Note 1. Nature of Business

ChromaDex Corporation and its wholly owned subsidiaries, ChromaDex, Inc., ChromaDex International, Inc., ChromaDex Analytics, Inc., ChromaDex Asia Limited, Asia Pacific Scientific, Inc., ChromaDex Europa B.V. and ChromaDex Sağlık Ürünleri Anonim Şirketi (collectively, "ChromaDex" or 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 that is a key regulator of cellular metabolism and is found in every cell of the human body. NAD+ levels in humans have been shown to decline with age, among other factors, and may be increased through supplementation with NAD+ precursors.

ChromaDex is the innovator behind the 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. The Company delivers Niagen® as the sole active ingredient in its dietary supplement consumer product Tru Niagen®. The Company further develops and commercializes proprietary-based ingredient technologies and supplies these ingredients as raw materials to the manufacturers of food and supplement consumer products. Additionally, the Company offers natural product fine chemicals, known as phytochemicals, and related research and development services.

Note 2. Basis of Presentation and Significant Accounting Policies

Basis of Presentation: The accompanying Unaudited Condensed Consolidated Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("generally accepted accounting principles" or "GAAP") for interim financial information and the instructions to Form 10-Q and Regulation S-X promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Certain information and footnote disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. In the opinion of management, the interim Unaudited Condensed Consolidated Financial Statements include all adjustments, including normal recurring adjustments, necessary for a fair presentation of the financial condition, results of operations and cash flows for such periods. Results of operations for any interim period are not necessarily indicative of results for any other interim period or for the full year. These Unaudited Condensed Consolidated Financial Statements should be read in conjunction with the Consolidated Financial Statements and notes thereto included in the Company's 2023 Annual Report on Form 10-K filed with the SEC on March 6, 2024.

Basis of Consolidation: The accompanying Unaudited Condensed Financial Statements and notes thereto 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.

Significant Accounting Policies: There have been no changes to the Company's significant accounting policies described in the Company's 2023 Annual Report on Form 10-K that have had a material impact on the Company's Unaudited Condensed Consolidated Financial Statements and related notes.

Accounting Standards Recently Issued but Not Yet Adopted by the Company:

In October 2023, the FASB issued ASU 2023-06, "Disclosure Improvements: Codification Amendments in Response to the SEC's Disclosure Update and Simplification Initiative," to amend certain disclosure and presentation requirements for a variety of topics within the ASC. These amendments align the requirements in the ASC to the removal of certain disclosure requirements set out in Regulation S-X and Regulation S-K, announced by the SEC. The effective date for each amended topic in the ASC is either the date on which the SEC's removal of the related disclosure requirement from Regulation S-X or Regulation S-K becomes effective, or on June 30, 2027, if the SEC has not removed the requirements by that date. Early adoption is prohibited. The Company is currently evaluating the impact that the adoption of ASU 2023-06 may have on its consolidated financial statements and disclosures.

Notes to the Unaudited Condensed Consolidated Financial Statements

In November 2023, the FASB issued ASU 2023-07, "Segment Reporting – Improvements to Reportable Segments Disclosures" (ASU 2023-07), which requires disclosure of significant segment expenses that are regularly provided to the chief operating decision maker (CODM) and included within each reported measure of segment profit or loss, an amount and description of its composition for other segment items to reconcile to segment profit or loss, and the title and position of the entity's CODM. The amendments in ASU 2023-07 also expand the interim segment disclosure requirements. ASU 2023-07 will be effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. Early adoption is permitted and the amendments in this update are required to be applied on a retrospective basis. The Company is currently evaluating the impact that the adoption of ASU 2023-07 may have on its consolidated financial statements and disclosures.

In December 2023, the FASB issued ASU 2023-09, "Income Taxes (Topic 740): Improvements to Income Tax Disclosures." ASU 2023-09 is intended to enhance the transparency and decision usefulness of income tax disclosures. The amendments in ASU 2023-09 address investor requests for enhanced income tax information primarily through changes to the rate reconciliation and income taxes paid information. A public entity should apply the amendments in ASU 2023-09 prospectively to all annual periods beginning after December 15, 2024. Early adoption and retrospective application are permitted. The Company is currently evaluating the impact of this standard on its consolidated financial statements and related disclosures.

In March 2024, the FASB issued ASU 2024-02, "Codification Improvements." ASU 2024-02 amends the Codification to remove references to various concepts statements and impacts a variety of topics in the Codification. The amendments apply to all reporting entities within the scope of the affected accounting guidance, but in most instances the references removed are extraneous and not required to understand or apply the guidance. ASU 2024-02 will become effective January 1, 2025 and although the Company is currently evaluating the impact of this standard, it is not expected to have a significant impact on the Company's financial statements and disclosures.

Note 3. Liquidity***Evaluation of Ability to Maintain Current Level of Operations***

In connection with the preparation of these Unaudited Condensed Consolidated Financial Statements for the three months ended March 31, 2024, management evaluated whether there were conditions and events, considered in the aggregate, that raised substantial doubt about the Company's ability to meet its obligations as they became due over the next twelve months from the date of issuance of the Company's first quarter of 2024 interim Unaudited Condensed Consolidated Financial Statements. Management assessed that there were such conditions and events, including a history of recurring operating losses and a history of negative cash flows from operating activities. For the three months ended March 31, 2024, the Company incurred a net loss of \$ 0.5 million, however, during the same period the Company's operating activities provided cash of \$ 0.3 million. As of March 31, 2024, the Company had unrestricted cash and cash equivalents of \$ 27.4 million which consists of bank deposits and short-term investments, including highly liquid investment-grade debt instruments with an original maturity of three months or less. The fair value of the Company's cash and cash equivalents is derived using Level 1 inputs.

Management evaluated these conditions and anticipates that its current unrestricted cash and cash equivalents and cash to be generated from net sales will be sufficient to meet its financial obligations as they become due over at least the next twelve months from the issuance date of these Unaudited Condensed Consolidated Financial Statements. 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.

Notes to the Unaudited Condensed 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 three months ended March 31, 2024 and 2023:

(In thousands, except per share data)	Three Months Ended March 31,	
	2024	2023
Net loss	\$ (492)	\$ (1,902)
Basic and diluted loss per common share	\$ (0.01)	\$ (0.03)
Basic and diluted weighted average common shares outstanding (1):	75,230	74,796
Potentially dilutive securities (2):		
Stock options	13,845	12,513
Restricted stock units	894	945

(1) Includes a weighted average of approximately 167,000 and 183,000 nonvested shares of restricted stock for the three months ended March 31, 2024 and 2023, respectively, which are participating securities that feature voting and dividend rights.

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

Note 5. Business Segments

The Company has the following three reportable segments:

- *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; and
- *Analytical Reference Standards and Services segment:* offers the supply of phytochemical reference standards and other research and development services.

The Company's reportable segments are significant operating segments that offer differentiated services. This structure reflects the Company's 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 net sales, gross profit and operating income (loss) 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. There are no intersegment sales that require elimination. The "Corporate and other" classification includes corporate items not allocated by the Company to each reportable segment.

Notes to the Unaudited Condensed Consolidated Financial Statements

The following tables set forth financial information by segment:

Three Months Ended March 31, 2024 (In thousands)	Consumer Products segment	Ingredients segment	Analytical Reference Standards and Services segment	Corporate and other	Total
Net sales	\$ 17,351	\$ 4,088	\$ 714	\$ —	\$ 22,153
Cost of sales	6,154	1,837	706	—	8,697
Gross profit	11,197	2,251	8	—	13,456
Operating expenses:					
Sales and marketing	6,596	12	132	—	6,740
Research and development	1,695	400	—	—	2,095
General and administrative	—	—	—	5,352	5,352
Operating expenses	8,291	412	132	5,352	14,187
Operating income (loss)	\$ 2,906	\$ 1,839	\$ (124)	\$ (5,352)	\$ (731)

Three Months Ended March 31, 2023 (In thousands)	Consumer Products segment	Ingredients segment	Analytical Reference Standards and Services segment	Corporate and other	Total
Net sales	\$ 17,633	\$ 4,124	\$ 799	\$ —	\$ 22,556
Cost of sales	6,404	1,881	753	—	9,038
Gross profit	11,229	2,243	46	—	13,518
Operating expenses:					
Sales and marketing	7,773	18	83	—	7,874
Research and development	967	226	—	—	1,193
General and administrative	—	—	—	6,419	6,419
Operating expenses	8,740	244	83	6,419	15,486
Operating income (loss)	\$ 2,489	\$ 1,999	\$ (37)	\$ (6,419)	\$ (1,968)

Notes to the Unaudited Condensed Consolidated Financial Statements

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 it best depicts how the nature, amount, timing and uncertainty of its revenue and cash flows are affected by economic factors. Disaggregated revenues are as follows:

Three Months Ended March 31, 2024 (In thousands)	Consumer Products Segment	Ingredients Segment	Analytical Reference Standards and Services Segment	Total
Tru Niagen®, Consumer Product	\$ 17,351	\$ —	\$ —	\$ 17,351
Niagen® Ingredient	—	4,088	—	4,088
Subtotal Niagen® Related	17,351	4,088	—	21,439
Other Ingredients	—	—	—	—
Reference Standards	—	—	681	681
Consulting and Other	—	—	33	33
Subtotal Other Goods and Services	—	—	714	714
Total Net Sales	\$ 17,351	\$ 4,088	\$ 714	\$ 22,153

Three Months Ended March 31, 2023 (In thousands)	Consumer Products Segment	Ingredients Segment	Analytical Reference Standards and Services Segment	Total
Tru Niagen®, Consumer Product	\$ 17,633	\$ —	\$ —	\$ 17,633
Niagen® Ingredient	—	3,898	—	3,898
Subtotal Niagen® Related	17,633	3,898	—	21,531
Other Ingredients	—	226	—	226
Reference Standards	—	—	775	775
Consulting and Other	—	—	24	24
Subtotal Other Goods and Services	—	226	799	1,025
Total Net Sales	\$ 17,633	\$ 4,124	\$ 799	\$ 22,556

Disclosure of Major Customers

Major customers are defined as customers whose sales or trade receivables individually consist of more than ten percent of total sales or total trade receivables, respectively. Percentage of net sales from major customers of the Company's consumer products segment and ingredients segment for the periods indicated were as follows:

Major Customers	Three Months Ended March 31,	
	2024	2023
A.S. Watson Group - Related Party	13.4 %	16.5 %

Notes to the Unaudited Condensed Consolidated Financial Statements

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

Major Customers	Percentage of the Company's Total Trade Receivables	
	At March 31, 2024	At December 31, 2023
A.S. Watson Group - Related Party	41.6 %	52.7 %
Amazon Marketplaces	18.6 %	12.2 %
Life Extension	19.6 %	16.1 %

As of March 31, 2024, concentration for the Company's outstanding trade receivables is significant, with approximately 80 % of the total outstanding trade receivables aggregated among three customers. Whenever a significant concentration is present it poses a potential risk to the Company's financial performance and cash flows, as any adverse changes in the payment behavior or financial health of these major customers could impact the Company's cash flows and financial results.

The Company has determined that the current concentration is primarily due to the timing of purchases, and the Company does not consider the concentration of its trade receivables to be a significant risk. Nevertheless, to ensure prudence and safeguard against potential challenges arising from this concentration, the Company remains vigilant in monitoring the creditworthiness and payment behavior of these major customers. Furthermore, the Company continues to pursue new partnerships and business opportunities which helps to diversify its customer base and minimize the risk of an overreliance on any particular trade receivable. Despite the Company's risk mitigation efforts, there is no assurance that the Company will not experience delays or defaults in payment from its customers, which could result in an increase in the Company's bad debt expense, a reduction in cash flows, and a negative impact on its financial performance.

Note 6. Related Party Transactions

A.S. Watson Group is a related party through common ownership of an enterprise that beneficially owns more than 10% of the common stock of the Company. The sale of consumer products and corresponding trade receivables to related parties during the periods indicated are as follows:

Net Sales	Three Months Ended March 31,	
	2024	2023
A.S. Watson Group - Related Party	\$ 3.0 million	\$ 3.7 million

Trade Receivable as of	March 31, 2024	December 31, 2023
A.S. Watson Group - Related Party	\$ 2.7 million	\$ 2.8 million

Note 7. Inventories

The Company's major classes of inventory and corresponding balances as of March 31, 2024 and December 31, 2023 are as follows:

(In thousands)	March 31, 2024	December 31, 2023
Consumer Products - Finished Goods	\$ 6,478	\$ 5,962
Consumer Products - Work in Process	2,871	3,537
Bulk ingredients	2,643	4,478
Reference standards	503	548
Total Inventory	\$ 12,495	\$ 14,525

Notes to the Unaudited Condensed Consolidated Financial Statements

Note 8. Leases

The Company accounts for its leases in accordance with ASU No. 2016-02 (Topic 842) which requires that a lessee recognize the assets and liabilities that arise from operating leases. The ASU requires lessees to recognize a liability for lease obligations, which represents the discounted obligation to make future lease payments, and a corresponding right-of-use (ROU) asset on the balance sheet. The Company leases office space facilities and a research and development laboratory under non-cancelable operating leases with varying expirations extending through fiscal year 2029. The lease agreements provide for renewal options and rent escalation over the lease term as well as require the Company to pay maintenance, insurance and property taxes. Lease expense is recognized on a straight-line basis over the term of the lease.

Operating Leases

As of March 31, 2024 and December 31, 2023, the Company had ROU assets of \$ 2.2 million and \$ 2.4 million, respectively, and corresponding operating lease liabilities of \$ 3.2 million and \$ 3.3 million, respectively. For the three months ended March 31, 2024 and 2023, the components of operating lease expenses are as follows:

(In thousands)	Three Months Ended March 31,	
	2024	2023
Operating leases		
Operating lease expense	\$ 231	\$ 231
Variable lease expense (1)	108	53
Operating lease expense	339	284
Short-term lease rent expense	4	4
Total expense	\$ 343	\$ 288

(1) Variable lease costs, including property taxes and insurance and common area maintenance fees, are classified in cost of services in the Company's Unaudited Condensed Consolidated Statements of Operations.

	At March 31, 2024
Weighted-average remaining lease term (years), operating leases	3.7
Weighted-average discount rate, operating leases	7.0 %

Future minimum lease payments under operating leases as of March 31, 2024 are as follows:

Year	(In thousands)
2024 (Remainder)	\$ 655
2025	1,135
2026	901
2027	491
2028	358
2029	30
Total	3,570
Less present value discount	(364)
Present value of total operating lease liabilities	3,206
Less current portion	(850)
Long-term obligations under operating leases	\$ 2,356

Notes to the Unaudited Condensed Consolidated Financial Statements

Note 9. Share-Based Compensation
Equity 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. Pursuant to the latest amendment, the 2017 Plan provides for the issuance of shares that total no more than the sum of (i) 18,150,000 new shares, (ii) any returning shares such as forfeited, cancelled, or expired shares granted under either the 2017 Plan or the Second Amended and Restated 2007 Equity Incentive Plan and (iii) 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 March 31, 2024, there were approximately 3.1 million remaining shares available for issuance under the 2017 Plan. Options expire 10 years from the date of grant.

The Company uses the Black-Scholes option-pricing model to recognize the value of stock-based compensation expense for stock option awards that are not market based. Determining the appropriate fair-value model and calculating the fair value of stock option awards at the grant date requires judgment, including estimating stock price volatility and expected option life. The fair-value of the restricted stock unit awards at the grant date is based on the market price on the grant date. The Company develops estimates based on historical data and market information, which can change significantly over time, and adjusts for forfeitures as they occur.

General Vesting Conditions

The Company's stock options and restricted stock unit (RSU) awards are generally subject to a one-year cliff vesting period after which one-third of the shares vest with the remaining shares vesting ratably each month over a two-year period subject to the applicable grantee's continued service. Beginning in the second quarter of 2022, RSU awards are generally subject to a three-year vesting period with one-third vesting per year on the anniversary of the grant date. Certain stock option awards are market or performance based and vest based on certain triggering events established by the Compensation Committee. Certain executive stock option and RSU awards provide for accelerated vesting if there is a change in control or termination without cause.

Stock Options

The Company used the following weighted average assumptions for options granted during the three months ended March 31, 2024:

Weighted Average:	Three Months Ended March 31, 2024
Expected term	6.5 years
Expected volatility	73.6 %
Risk-free rate	4.3 %
Expected dividends	— %

Notes to the Unaudited Condensed Consolidated Financial Statements

Service Period Based Stock Options

The following table summarizes activity of service period-based stock options during the three months ended March 31, 2024:

(In thousands except per share data and remaining contractual term)	Number of Options	Weighted Average		Aggregate Intrinsic Value
		Exercise Price	Remaining Contractual Term (Years)	
Outstanding at December 31, 2023	10,581	\$ 3.63	5.9	\$ 4
Options Granted	2,910	1.55		
Options Exercised	—	—		—
Options Forfeited	(646)	3.91		
Outstanding at March 31, 2024	12,845	\$ 3.14	6.6	\$ 12,472 *
Exercisable at March 31, 2024	7,563	\$ 4.08	4.6	\$ 3,189 *

*The aggregate intrinsic values in the table above are based on the Company's stock price of \$ 3.48 , which is the closing price of the Company's stock on the last trading day for the period ended March 31, 2024.

Performance Based Stock Options

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

The following table summarizes performance based stock options activity during the three months ended March 31, 2024:

(In thousands except per share data and remaining contractual term)	Number of Options	Weighted Average		Aggregate Intrinsic Value
		Exercise Price	Remaining Contractual Term (Years)	
Outstanding at December 31, 2023	41	\$ 4.34	0.1	\$ —
Options Granted	—	—		
Options Exercised	—	—		\$ —
Options Forfeited	(41)	4.34		
Outstanding at March 31, 2024	—	\$ —	—	\$ — *
Exercisable at March 31, 2024	—	\$ —	—	\$ — *

There were no activities related to market-based stock options or restricted stock awards during the three months ended March 31, 2024.

Notes to the Unaudited Condensed Consolidated Financial Statements

Restricted Stock Units

The following table summarizes activity of RSUs during the three months ended March 31, 2024:

(In thousands except per share fair value)	Number of RSUs	Weighted Average	
		Fair Value	
Unvested shares at December 31, 2023	589	\$	2.08
Granted	479		1.52
Vested	(147)		2.34
Forfeited	(27)		1.91
Unvested shares at March 31, 2024	894	\$	1.74
Expected to vest at March 31, 2024	894	\$	1.74

Total Share-Based Compensation

Total share-based compensation expense was as follows:

(In thousands)	Three Months Ended March 31,	
	2024	2023
Share-based compensation expense		
Cost of sales	\$ 87	\$ 79
Sales and marketing	192	397
Research and development	242	240
General and administrative (1)	463	557
Total	\$ 984	\$ 1,273

(1) On March 1, 2024, the Company issued 25,000 shares of the Company's common stock in exchange for services rendered. Such shares had a fair value of \$ 40,250 , or \$ 1.61 per share, based upon the quoted closing trading price on the issuance date. The fair value of \$ 40,250 was recognized as share-based compensation during the three months ended March 31, 2024 under the general and administrative classification. The shares issued were not registered under the Securities Act of 1933, as amended (the "Securities Act"), or any state securities laws. The Company relied on the exemption from the registration requirements of the Securities Act by virtue of Section 4(a)(2) thereof and Rule 506 of Regulation D thereunder.

In future periods, the Company expects to recognize approximately \$ 5.7 million and \$ 1.4 million in share-based compensation expense for unvested options and unvested RSUs, respectively, that were outstanding as of March 31, 2024. Future share-based compensation expense will be recognized over 2.2 weighted average years for both unvested options and RSUs. The Company also has total unrecognized share-based compensation expense of \$ 1.0 million pertaining to the Joint Venture. Such expense will only be recognized if Blue Hat Registration is achieved, the timing of which is uncertain as of March 31, 2024. For additional discussion of the Joint Venture, see Note 12, *Joint Venture Agreement* .

Notes to the Unaudited Condensed Consolidated Financial Statements

Note 10. Commitments and Contingencies**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.

Notes to the Unaudited Condensed Consolidated Financial Statements

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" or "COVID") 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 October 25, 2021, ChromaDex informed the court that it would request 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 (SDNY Court) a motion to enforce a settlement agreement between ChromaDex, Inc. and Elysium that ChromaDex, Inc. asserts would materially affect the California Action. On April 22, 2022, ChromaDex, Inc. and Elysium jointly filed a notice informing the court that the SDNY Court had granted ChromaDex, Inc.'s motion to enforce the settlement agreement. On April 29, 2022, ChromaDex, Inc. filed a notice informing the court that the SDNY Court had dismissed the SDNY action with prejudice pursuant to the settlement agreement. On August 22, 2022, ChromaDex, Inc. filed a motion for entry of judgment pursuant to Federal Rule of Civil Procedure 54(b) on the basis that the settlement agreement was enforceable and resolved the claims and counterclaims tried to the jury in the California Action. Elysium's opposition brief was filed on August 29, 2022, and ChromaDex, Inc.'s reply brief was filed on September 2, 2022. On September 13, 2022, the court denied ChromaDex, Inc.'s motion for entry of judgment pursuant to Rule 54(b).

Notes to the Unaudited Condensed Consolidated Financial Statements

On September 28, 2022, ChromaDex, Inc., Elysium, and Mark Morris filed a joint stipulation requesting that the court stay the California Action pending the final resolution of ChromaDex, Inc.'s appeal in the U.S. Court of Appeals for the Federal Circuit captioned ChromaDex, Inc. v. Elysium Health, Inc., No. 2022-1116 (the "Federal Circuit Appeal"). On September 28, 2022, the court issued an order staying the California Action pending the final resolution of the Federal Circuit Appeal. On June 16, 2023, ChromaDex, Elysium, and Mark Morris filed a joint status report and stipulation informing the court that the U.S. Court of Appeals for the Federal Circuit had issued its mandate in the Federal Circuit Appeal and requesting the court continue the stay of the California Action until August 22, 2023, in order to allow the parties in the Federal Circuit Appeal the opportunity to file a petition for a writ of *certiorari* in the Supreme Court. On June 20, 2023, the court approved the joint stipulation and continued the stay until August 22, 2023. On August 14, 2023, at the request of the parties, the court further continued the stay until September 21, 2023. On September 15, 2023, ChromaDex, Elysium, and Mark Morris filed a joint status report and stipulation informing the court that ChromaDex and the Trustees of Dartmouth College had filed a petition for writ of *certiorari* in the Supreme Court and requesting the court continue the stay pending the Supreme Court's decision on the petition. On September 15, 2023, the court approved the joint stipulation and continued the stay pending the Supreme Court's decision on the petition.

On November 15, 2023, ChromaDex, Elysium, and Mark Morris filed a joint status report and stipulation informing the court that the U.S. Court of Appeals for the Second Circuit, in a case captioned *In re Elysium-ChromaDex Litigation*, No. 22-1059 (the "Second Circuit Appeal"), had affirmed the order by the SDNY Court granting ChromaDex's motion to enforce the settlement agreement and requesting that the court continue the stay of the California Action until February 23, 2024, in order to allow the parties in the Second Circuit Appeal the opportunity to file a petition for a writ of *certiorari* in the Supreme Court. On November 16, 2023, the court approved the joint stipulation and continued the stay until February 23, 2024. On February 23, 2024, ChromaDex, Elysium, and Mark Morris filed a joint status report and stipulation requesting that the court approve a schedule for briefing concerning the judgment in the California Action. On February 26, 2024, the court approved the joint stipulation and adopted the parties' proposed briefing schedule. ChromaDex filed its opening brief on April 26, 2024. Defendants must file their opposition brief no later than June 25, 2024 and ChromaDex must file its reply brief no later than July 25, 2024. The matter is scheduled to be heard on August 12, 2024.

(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.

Notes to the Unaudited Condensed Consolidated Financial Statements

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, 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. 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 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 asserted that a settlement had not been reached. 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. On April 19, 2022, the Court concluded that a settlement had been reached and granted ChromaDex's motion to enforce the Settlement Agreement. On April 28, 2022, pursuant to the Settlement Agreement, the Court dismissed the entire action with prejudice. On May 11, 2022, Elysium filed a notice of appeal. On May 25, 2022, ChromaDex filed a notice of cross-appeal. Elysium filed its opening brief on August 24, 2022. ChromaDex filed its opening and response brief on November 22, 2022. Elysium filed its reply and response brief on January 20, 2023. ChromaDex filed its reply brief on February 10, 2023. Oral argument took place on October 13, 2023. On October 26, 2023, the court of appeals issued a decision affirming the district court's decision enforcing the Settlement Agreement, and also dismissed ChromaDex's conditional cross-appeal as moot. On November 16, 2023, the court of appeals' decision became final.

Notes to the Unaudited Condensed Consolidated Financial Statements

(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.

Notes to the Unaudited Condensed Consolidated Financial Statements

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 was filed on April 11, 2022. ChromaDex's reply brief was filed on May 9, 2022. Oral argument occurred on December 6, 2022. On February 13, 2023, the court of appeals issued a decision affirming the district court's decision. On March 15, 2023, ChromaDex filed a petition for a panel rehearing and/or rehearing en banc. On April 10, 2023, the court of appeals invited Elysium to file a response to the petition and on April 24, 2023, Elysium filed a response to the petition. On May 10, 2023, the court of appeals denied the petition. On May 17, 2023, the court of appeals issued the mandate. On June 16, 2023, Elysium filed a bill of costs and a motion for attorneys' fees and costs. On June 30, 2023, ChromaDex filed objections to Elysium's bill of costs. On July 21, 2023, ChromaDex filed a response to Elysium's motion for attorneys' fees and costs. On July 28, 2023, ChromaDex filed an application for an extension of time to September 7, 2023 to file a petition for writ of *certiorari*. On August 1, 2023, the Supreme Court granted the requested extension. On August 14, 2023, Elysium filed a reply in support of its motion for attorneys' fees and costs. On September 7, 2023, ChromaDex filed a petition for writ of *certiorari*. On October 16, 2023, the Supreme Court denied the petition. On March 25, 2024, the Court granted Elysium's motion for attorneys' fees and costs. On April 9, 2024, the Court entered a stipulated schedule and procedure for resolving the amount of fees and costs. In connection with the Court's current ruling and the Company's intention to appeal this decision, management has assessed that it is reasonably possible a contingent liability will be incurred. If the Company is successful in its appeal, no liability would be incurred. However, if the Company is not successful, the Company may be liable for the aggregate amount sought by Elysium, which, inclusive of ChromaDex's estimates for post-judgment interest, is approximately \$ 9.8 million. It is at least reasonably possible that the estimated range of the loss will change in the near term as additional information from the Court is made available.

2. 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 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.

Notes to the Unaudited Condensed Consolidated Financial Statements

Note 11. Employee Retention Tax Credit

In March 2020, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) was signed into law, providing numerous tax provisions and other stimulus measures, including the Employee Retention Tax Credit (ERTC): a refundable tax credit against certain employment taxes for qualifying businesses keeping employees on their payroll during the COVID-19 pandemic.

The Company determined that it qualified for the ERTC in the last three quarters of 2020 and all three quarters of 2021 and filed a claim for the credit in August 2022. During the quarter ended September 30, 2022, the Company recorded an aggregate benefit of approximately \$ 2.1 million in Other income, net - Employee Retention Tax Credit in its Unaudited Condensed Consolidated Statements of Operations to reflect the ERTC for all eligible quarters.

During the years ended December 31, 2023 and December 31, 2022, the Company collected \$ 0.9 million and \$ 0.6 million, respectively, related to the ERTC. On September 14, 2023, the IRS announced an immediate halt in processing new claims for the employee retention credit until at least the end of the year, citing ongoing concerns about improper claims. The IRS guaranteed ongoing processing of existing claims, albeit at a reduced pace and with increased compliance scrutiny. To date, the Company has not received communications from the IRS regarding the Company's existing claims. Nevertheless, the Company is diligently monitoring the situation to ensure continued compliance. As of March 31, 2024, the Company's Consolidated Balance Sheets include an ERTC benefit of \$ 0.9 million and associated commissions payable of \$ 0.1 million recorded within prepaid expenses and other current assets and accrued expenses, respectively.

Note 12. Joint Venture Agreement

On September 30, 2022, Asia Pacific Scientific, Inc., an indirect wholly owned subsidiary of the Company, and Hong Kong (China) Taikuk Group Ltd (Taikuk) entered into a shareholders agreement (the "Shareholders Agreement") pursuant to which Taikuk has agreed to contribute \$ 1.0 million (the "Subscription Price") in exchange for an 11 % non-voting equity interest in ChromaDex Asia Pacific Ventures Limited, a subsidiary of Asia Pacific Scientific, Inc. (the "Joint Venture" or "JV"). Additionally, the Company shall pay \$ 1.0 million in cash to Taikuk (the "Taikuk Fee") upon the closing of the Shareholders Agreement (the "Closing"). The Company and Taikuk have mutually agreed that no exchange of funds for the Taikuk Fee and Subscription Price was necessary and, accordingly, no cash has or will exchange hands related to these provisions of the Shareholders Agreement. The articles of association of the JV were amended and restated simultaneously with the Closing.

The purpose of the JV is to commercialize Tru Niagen® and other products containing nicotinamide riboside to be developed by the Company in the ordinary course (the "Products") in Mainland China and its territories, excluding Hong Kong, Macau and Taiwan (the "Territory"). The Shareholders Agreement has an initial term of 20 years, unless earlier terminated. The Company indirectly owns an 89 % equity interest (and all of the voting interests) in the JV and has the right to elect all three directors of the JV.

Prior to being able to commercialize the Products in the Territory, the JV will have to obtain all applicable regulatory approvals, including "Blue Hat" or health food registration with the Peoples Republic of China State Administration for Market Regulation for Products in the name of the Company or its designee (collectively, the "Blue Hat Registration"). Upon completion of Blue Hat Registration, the Company shall make a payment of \$ 1.0 million in cash to Taikuk (the "Blue Hat Registration Fee"). If the Blue Hat Registration is not obtained within 24 months of the Closing (which may be extended by an additional 12 months upon mutual consent of the parties), the JV may repurchase the 11 % non-voting interest purchased by Taikuk for \$ 1 (the "Right of Repurchase"). The Right of Repurchase functions as a performance vesting condition under ASC 718 and the 11 % non-voting equity interest is accounted for as nonemployee share-based compensation. The equity interest will only vest if Blue Hat Registration is achieved, at which time the minority interest will be recorded. As of March 31, 2024, it is uncertain when Blue Hat Registration will be achieved. Consequently, no amounts related to the Blue Hat Registration Fee or the 11 % non-voting interest have been recognized in the Unaudited Condensed Consolidated Statements of Operations for the three months ended March 31, 2024.

Notes to the Unaudited Condensed Consolidated Financial Statements

The fair value of the 11 % non-voting interest and corresponding share-based compensation expense of \$ 1.0 million was determined as of the grant date of September 30, 2022 and based on a discounted cash flow model, which utilizes Level 3, or unobservable, inputs. The most significant of these inputs were the combined weighted averages of the a) discount rate at 27.5 %, b) present value of estimated future cash flows of \$ 3.9 million and c) the present value of the terminal value at \$ 5.6 million.

Once Blue Hat Registration is complete and certain distribution agreements relating to the commercialization of the Products in the Territory are assigned and entered into (the "Distribution Agreements"), Taikuk would be entitled to certain royalty payments based on the Company's and the JV's net revenue for sales of the Products in the Territory under the Distribution Agreements. Operating activity under the JV was not material during the three months ended March 31, 2024 and 2023.

Note 13. Income Taxes

During the first quarter of 2024, the Company was notified that it was selected for examination by the Internal Revenue Service (IRS) for its federal income tax return for the fiscal year 2021 period. The Company is not currently under examination by any other major income tax jurisdiction.

ITEM 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion should be read in conjunction with the Unaudited Condensed Consolidated Financial Statements and accompanying notes, which appear elsewhere in this Quarterly Report on Form 10-Q. We urge you to carefully review and consider the various disclosures made by us in this Quarterly Report and in our other reports filed with the Securities and Exchange Commission (SEC), including our Annual Report on Form 10-K for the year ended December 31, 2023, as well as subsequent reports we may file from time to time on Form 10-Q and Form 8-K, for additional information. All dollar amounts in this Management's Discussion and Analysis of Financial Condition and Results of Operations are approximate.

Growth and percentage comparisons made herein generally refer to the three months ended March 31, 2024 compared with the three months ended March 31, 2023 unless otherwise noted. Unless otherwise indicated or unless the context otherwise requires, all references in this document to "we," "us," "our," the "Company," "ChromaDex" and similar expressions refer to ChromaDex Corporation, and depending on the context, its subsidiaries.

Special Note Regarding Forward Looking Statements

Certain statements in this MD&A, other than purely historical information, including estimates, projections, statements relating to our business plans, objectives and expected operating results, and the assumptions upon which those statements are based, are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements generally can be identified by the use of forward-looking terminology such as "expects," "anticipates," "intends," "estimates," "plans," "potential," "possible," "probable," "believes," "seeks," "may," "will," "should," "could," "predicts," "projects," "continue," "would" or the negative of such terms or other similar expressions. Forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties which may cause actual results to differ materially from the forward-looking statements. We undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events, or otherwise. Readers should carefully review the risk factors set forth below in Part II, Item 1A, "Risk Factors" and our financial statements and related notes in our Annual Report on Form 10-K for the year ended December 31, 2023 filed with the Securities and Exchange Commission on March 6, 2024 (Annual Report).

Company Overview

We are a global bioscience company dedicated to healthy aging. Our team, which includes world-renowned scientists, is pioneering research on nicotinamide adenine dinucleotide (NAD⁺), an essential coenzyme that is a key regulator of cellular metabolism and is found in every cell of the human body. NAD⁺ levels in humans have been shown to decline by up to 65% between ages 30 and 70. In addition to age, other factors linked to NAD⁺ depletion include poor diet, excess alcohol consumption and a number of disease states. NAD⁺ levels may be increased with NAD⁺ precursors, such as nicotinamide riboside (NR), calorie restriction and moderate exercise. We are at the forefront of exploring effective methods to increase NAD⁺ levels and support healthy aging.

In 2013, we commercialized Niagen®, a proprietary form of NR, a novel form of vitamin B3, as both a dietary and food ingredient. It remains one of the most well-studied and efficient NAD⁺ precursors on the market. Data from numerous preclinical studies and human clinical trials show that NR is a highly efficient NAD⁺ precursor that significantly raises NAD⁺ levels in blood and tissue. Niagen® is confirmed safe for human consumption as a dietary supplement and food ingredient. Niagen® has twice been successfully reviewed under the 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, the Turkish Ministry of Agriculture and the Therapeutic Goods Administration (TGA) of Australia. Niagen® has also been approved for inclusion in medical foods by both the Brazilian Health Regulatory Agency (ANVISA) and the Food Standards Australia New Zealand (FSANZ). Clinical studies of Niagen® have demonstrated a variety of outcomes including increased NAD⁺ levels, altered body composition, increased cellular metabolism and increased energy production. Niagen® is protected by patents to which we are the owner or have exclusive rights.

While best known for its role in cellular energy production, NAD⁺ is also 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⁺. To date, there are over 475 published human clinical studies related to NAD⁺ and its impact on health. These areas of study include understanding NAD⁺'s role in Alzheimer's disease, Parkinson's disease, neuropathy, sarcopenia, liver disease and heart failure.

We are among the world leaders in the emerging NAD+ space. Through our ChromaDex External Research Program (CERP®), we have amassed more than 275 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, the Mayo Clinic, Chiba University and Sun Yat-sen University. The results of the 275+ research agreements have allowed CERP® to help produce the trusted science behind Niagen® and continue to advance the understanding of NAD+ in health, diseases, and aging. We value and encourage strong scientific rigor behind our products and seek to continually develop additional relationships in pursuit of this. CERP® is a vital component of our research and development platform along with our scientific advisory board. Our scientific advisory board supports the technical and intellectual property needs of investigators, presents research at conferences, and helps build and support the NAD+ and healthy aging research community.

Our scientific advisory board is led by Chairman Dr. Roger Kornberg, Nobel Laureate and Stanford Professor. Other distinguished members include Dr. Charles Brenner, Alfred E Mann Family Foundation Chair in the Department of Diabetes & Cancer Metabolism at City of Hope and one of the world's recognized experts in NAD+ and discoverer of NR as a NAD+ precursor; Dr. Rudy Tanzi, co-chair of the department of neurology at Harvard Medical School; Sir John Walker, Nobel Laureate and Emeritus Director of the 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 in the Department of Molecular Medicine at Scripps Research Institute, California Campus; Dr. David Katz, 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.; and Dr. Vilhelm (Will) Bohr, M.D., Ph.D., D.Sc., former Chief of the Laboratory of Molecular Genetics at the National Institute on Aging of the National Institutes of Health.

Financial Condition and Results of Operations

The discussion and analysis of our financial condition and results of operations is based on our 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 net sales and expenses during the reporting periods. On an ongoing basis, we evaluate such estimates and judgments, including those described in greater detail below. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

As of March 31, 2024, our cash and cash equivalents totaled approximately \$27.6 million, of which \$27.4 million was unrestricted. We anticipate that our current unrestricted cash and cash equivalents and cash to be generated from net sales will be sufficient to meet our financial obligations as they become due over at least the next twelve months. We may, however, seek additional capital in 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.

We currently have three operating segments which offer differentiated services. Through our Consumer Products segment we provide finished dietary supplement products that contain the Company's proprietary ingredients directly to consumers and distributors. We deliver Niagen® as the sole active ingredient in our consumer product Tru Niagen®. We additionally offer consumer products containing Niagen® in combination with other nutrients, such as, but not limited to, Tru Niagen® Immune. Our ingredients segment develops and commercializes proprietary-based ingredient technologies and supplies these ingredients as raw material to the manufacturers of consumer products. Our Analytical Reference Standards and Services segment focuses on natural product fine chemicals, known as phytochemicals, and related research and development services. The results of these segments and our consolidated operations are detailed in the discussion that follows.

Our consolidated net sales and net loss for the three months ended on March 31, 2024 and 2023 are as follows:

	Three Months Ended March 31,	
	2024	2023
<i>(In thousands, except per share data)</i>		
Net sales	\$ 22,153	\$ 22,556
Net loss	(492)	(1,902)
Basic and diluted loss per common share	\$ (0.01)	\$ (0.03)

Net Sales

Net sales consist of gross sales less discounts and returns. The following table sets forth our total net sales by reportable segment:

	Three Months Ended March 31,		
	2024	2023	% Change
<i>(In thousands)</i>			
Net sales:			
Consumer Products	\$ 17,351	\$ 17,633	(2) %
Ingredients	4,088	4,124	(1) %
Analytical reference standards and services	714	799	(11) %
Total net sales	\$ 22,153	\$ 22,556	(2) %

Total net sales decreased by approximately \$0.4 million for the three months ended March 31, 2024, compared to the same period in 2023. Changes in net sales were driven by the following:

- Tru Niagen® net sales decreased by \$0.3 million for the three months ended March 31, 2024 compared to the corresponding period in 2023. This decrease primarily resulted from lower sales to A.S. Watson, a related party, which declined by \$0.7 million, largely due to timing of sales, as well as a modest decrease of \$0.2 million in sales to other distributor partners. However, this decline was partially offset by an increase of \$0.6 million in e-commerce sales.
- For the three months ended March 31, 2024, total ingredients sales remained relatively consistent compared to the corresponding period in 2023. This stability stemmed from a modest increase of \$0.2 million in Niagen ingredient sales, which was offset by an equal decline of \$0.2 million in sales of other ingredients, as compared to the same period in 2023.
- Our analytical reference standards and services segment, which constituted the smallest proportion of total sales, declined a modest \$0.1 million during the three months ended March 31, 2024 compared to the corresponding period in 2023.

Cost of Sales

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

	Three Months Ended March 31,			
	Amount		% of net sales	
	2024	2023	2024	2023
<i>(In thousands)</i>				
Cost of sales:				
Consumer Products	\$ 6,154	\$ 6,404	35 %	36 %
Ingredients	1,837	1,881	45	46
Analytical reference standards and services	706	753	99	94
Total cost of sales	\$ 8,697	\$ 9,038	39 %	40 %

Overall, cost of sales, as a percentage of net sales, remained relatively stable for the three months ended March 31, 2024 compared to the same period in 2023. Changes in cost of sales were primarily driven by the following:

- Cost of sales, as a percentage of net sales, for our consumer products segment can fluctuate due to business mix, product mix, inflationary costs, and optimization efforts in our supply chain, among other factors. For the three months ended March 31, 2024, our consumer products segment maintained relatively stable cost of sales, as a percentage of net sales, compared to the same period in 2023, improving approximately 100 basis points.
- Cost of sales, as a percentage of net sales, in our ingredients segment and our analytical reference standards and services segment are predominantly influenced by fixed supply chain overhead costs, which remain constant regardless of sales fluctuations. Consequently, increased sales result in improved labor and overhead utilization rates, while decreased sales lead to lower utilization rates. In the ingredients segment, both net sales and cost of sales remained relatively consistent during the three months ended March 31, 2024 with an improvement of approximately 100 basis points in cost of sales as a percentage of net sales, compared to the same period in 2023. For the analytical reference standards and services segment, which experienced modestly lower sales and costs of sales for the three months ended March 31, 2024, compared to the same period in 2023, there was an observed increase of 500 basis points in cost of sales as a percentage of net sales.

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

	Three Months Ended March 31,		
	2024	2023	% Change
<i>(In thousands)</i>			
Gross profit:			
Consumer Products	\$ 11,197	\$ 11,229	— %
Ingredients	2,251	2,243	—
Analytical reference standards and services	8	46	(83)
Total gross profit	\$ 13,456	\$ 13,518	— %

For details supporting the changes in gross profit, refer to the preceding discussions outlining the changes in both our net sales and cost of sales for each respective segment.

Operating Expenses-Sales and Marketing

Sales and marketing expenses consist of salaries, advertising, public relations and marketing expenses. Sales and marketing expenses by reportable segment were as follows:

	Three Months Ended March 31,			
	Amount		% of net sales	
	2024	2023	2024	2023
<i>(In thousands)</i>				
Sales and marketing expenses:				
Consumer Products	\$ 6,596	\$ 7,773	38 %	44 %
Ingredients	12	18	—	—
Analytical reference standards and services	132	83	18	10
Total sales and marketing expenses	\$ 6,740	\$ 7,874	30 %	35 %

- For our consumer products segment, sales and marketing expense, as a percentage of net sales, improved 600 basis points for the three months ended March 31, 2024, compared to the same period in 2023. This change can be attributed to an investment made during the three months ended March 31, 2023. Specifically, we invested in a strategic brand-building event aimed at enhancing awareness and driving sales of Tru Niagen on our largest e-commerce platform. However, during the three months ended March 31, 2024, we did not undertake a similar brand-building event and instead prioritized our investments in more efficient, direct return distribution channels and marketing campaigns. During fiscal year 2024, we expect our sales and marketing spend to increase with similar efficiencies compared to 2023.
- Sales and marketing expense for our ingredients segment remained minimal throughout the three months ended March 31, 2024 and 2023.
- For our analytical reference standards and services segment, sales and marketing expense, as a percentage of net sales, increased 800 basis points for the three months ended March 31, 2024, compared to the same period in 2023. This change was driven by increases in employee related expenses.

Operating Expenses-Research and Development

Research and development (R&D) expenses consist primarily of headcount, clinical trials, product development and process development expenses. Research and development expenses by reportable segment were as follows:

	Three Months Ended March 31,		
	2024	2023	% Change
<i>(In thousands)</i>			
R&D expenses:			
Consumer Products	\$ 1,695	\$ 967	75 %
Ingredients	400	226	77
Total R&D expenses	\$ 2,095	\$ 1,193	76 %

We allocate R&D expenses related to our Niagen® branded ingredient to the consumer products and ingredients segment, based on recorded revenues. During the three months ended March 31, 2024, we invested in strategic R&D initiatives to support future launches, leading to a \$0.9 million increase in R&D expenses. R&D expenses fluctuate based on the timing of projects, clinical trials and headcount.

Operating Expenses-General and Administrative

General and administrative expense consists of general company administration, legal, royalties, IT, accounting and executive management expenses. General and administrative expenses are not allocated by segment and instead are classified under our Corporate and Other category. General and administrative expense for the periods indicated were as follows:

(In thousands)	Three Months Ended March 31,		
	2024	2023	% Change
General and administrative	\$ 5,352	\$ 6,419	(17) %

Total general and administrative expense decreased by \$1.1 million during the three months ended March 31, 2024, compared to the corresponding period in 2023. The reduction in expense for the three months ended March 31, 2024 was primarily attributable lower executive and other administrative headcount expenses of \$0.5 million, a reduction in provisions for credit losses of \$0.3 million, lower severance and restructuring expense of \$0.2 million and lower share-based compensation expense of \$0.1 million.

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 March 31, 2024 and March 31, 2023, we maintained a full valuation allowance against the entire deferred income tax balance which resulted in an effective tax rate of approximately 0% for the three months ended March 31, 2024 and 2023. 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.

During the first quarter of 2024, the Company was notified that it was selected for examination by the Internal Revenue Service (IRS) for its federal income tax return for the fiscal year 2021 period. The Company is not currently under examination by any other major income tax jurisdiction.

Depreciation and Amortization

Depreciation expense was approximately \$178,000 and \$228,000 for the three months ended March 31, 2024 and 2023, respectively. 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 \$38,000 and \$41,000 for the three months ended March 31, 2024 and 2023, respectively. We amortize intangible assets using a straight-line method, generally over 10 years. For licensed patent rights, the useful lives are 10 years or the remaining term of the patents underlying licensing rights, whichever is shorter. The useful lives of subsequent milestone payments that are capitalized are the remaining useful life of the initial licensing payment that was capitalized.

Amortization expense of right of use assets for the three months ended March 31, 2024 was approximately \$174,000 compared to \$171,000 for the three months ended March 31, 2023.

Liquidity and Capital Resources

From inception through March 31, 2024, we have incurred aggregate losses of approximately \$191.0 million. These losses are primarily due to expenses associated with the development and expansion of our operations and investments to protect our intellectual property, including litigation-related expenses. Historically, these operations have been financed through capital contributions, primarily through the issuance of common stock in private placements, and cash generated from sales.

Our board of directors periodically reviews our capital requirements in light of our proposed business plan. Our future capital requirements will be influenced by several factors, including cash flows from operations, sales growth, optimized gross profit margins, reduced selling and marketing expense as a percentage of net sales, continued customer relationship development, and the ability to successfully market new and existing products. However, based on our results from operations, we may determine that we need additional financing to implement our long-term business plan. There can be no assurance that any such financing will be available on terms favorable to us or at all. Without adequate financing we may have to delay or terminate product and service expansion and curtail certain selling, general and administrative expenses. Any inability to raise additional financing would have a material adverse effect on us.

As of March 31, 2024, we had cash and cash equivalents of \$27.6 million, including \$152,000 of restricted cash, no material off-balance sheet arrangements and no outstanding borrowings under our line of credit with Western Alliance Bank. Our cash and cash equivalents as of March 31, 2024 consisted of bank deposits and short-term investments of highly liquid investment-grade debt instruments with an original maturity of three months or less. Additionally, as of March 31, 2024, we had purchase obligations of \$12.5 million related to inventory purchase commitments and future minimum lease obligations of \$3.6 million to be paid over approximately nine months and five years, respectively.

We anticipate that our current unrestricted cash and cash equivalents and cash to be generated from net sales will be sufficient to meet our financial obligations as they become due over at least the next twelve months and beyond. However, we may seek additional funds to support both our short-term and long-term operating objectives, either through additional equity or debt financings or collaborative agreements or from other sources.

As a result of various macroeconomic factors such as rising interest rates, inflation, bank failures and geopolitical uncertainties, the global credit and financial markets have experienced extreme volatility, including diminished liquidity and credit availability. 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.

Net cash provided by operating activities: Cash provided by operating activities is net loss adjusted for certain non-cash items and changes in operating assets and liabilities. Net cash provided by operating activities was approximately \$0.3 million for the three months ended March 31, 2024 compared to \$2.8 million for the three months ended March 31, 2023. The \$2.5 million reduction in cash provided by operating activities was primarily driven by relatively greater reductions in accounts payable of \$1.6 million and lower reductions in inventory and prepaid expenses and other assets of \$0.7 million and \$0.5 million, respectively.

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.

Cash used in investing activities: Investing cash flows consist primarily of capital expenditures and investment activities. Cash used in investing activities was \$41,000 and \$91,000 for the three months ended March 31, 2024 and 2023, respectively.

Net cash used in financing activities: Financing cash flows consist primarily of the repayment of short-term and long-term debt. Cash used in financing activities was nominal during each of the three months ended March 31, 2024 and March 31, 2023 consisting entirely of repayments for finance leases and payment of debt issuance costs.

Critical Account Estimates

There have been no material changes to critical accounting estimates from those disclosed in our 2023 Form 10-K.

ITEM 3. Quantitative and Qualitative Disclosures About Market Risk

Not applicable.

ITEM 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the supervision of our Chief Executive Officer and Chief Financial Officer (our principal executive officer and principal financial officer, respectively), evaluated the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (Exchange Act), as of the end of the period covered by this Quarterly Report on Form 10-Q. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of March 31, 2024, our disclosure controls and procedures are effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There were no changes in internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the Company's first fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II

Item 1. Legal Proceedings

For a description of our legal proceedings, see Note 10, *Commitments and Contingencies, Legal Proceedings* in the Notes to the Unaudited Condensed Consolidated Financial Statements, included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

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 and in our Annual Report, together with all other information contained in this Quarterly Report on Form 10-Q and our Annual Report, including our financial statements, the related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations," before making investment decisions with respect to our common stock. If any of the following risks actually occur, our business, financial condition, results of operations and future growth prospects would likely be materially and adversely affected. Under these circumstances, the trading price and value of our common stock could decline, and you may lose all or part of your investment. The risks and uncertainties described in this Quarterly Report on Form 10-Q and in our Annual Report 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.

Summary of Risk Factors

We are providing the following summary of the risk factors contained in our Form 10-Q to enhance the readability and accessibility of our risk factor disclosures. This summary does not address all of the risks that we face. We encourage our stockholders to carefully review the risk factors contained in this Form 10-Q in their entirety for additional information regarding the risks and uncertainties that could cause our actual results to vary materially from recent results or from our anticipated future results.

Risks Related to our Company and Business:

- We have a history of operating losses, may need additional financing to meet our future long-term capital requirements and may be unable to raise sufficient capital on favorable terms or at all.
- Interruptions in our relationships or declines in our business with major customers could materially harm our business and financial results.
- Global, market and economic conditions may negatively impact our business, financial condition and share price.
- 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.

Risks Related to our Operations:

- Our operating results may fluctuate significantly, which could make our future results difficult to predict and could cause our operating results to fall below expectations.
- 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 business could be negatively impacted by cyber security incidents or threats, including without limitation a material interruption to our operations and our IT systems, a material interruption to our clinical trials, harm to our reputation, significant fines, penalties, litigation, and liabilities, regulatory investigations or lawsuits, including class actions, breach or triggering of data protection laws, privacy policies and data protection obligations, or a loss of revenue, customers or sales.

Risks Related to our Products:

- We rely on single supplier, W.R. Grace, for NR and a limited number of third-party suppliers for the raw materials required to produce 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 may incur material product liability claims or class action litigation, 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.

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 may 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.

Risks Related to Regulatory Approval of our Products and Other Government Regulations:

- 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.

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.
- 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 have a limited operating history in China and we face risks with respect to conducting business in connection with our joint venture in China due to certain legal, political, economic and social uncertainties relating to China.

General Risks:

- We may become involved in securities class action litigation that could divert management's attention and harm our business.
- Our failure to establish and maintain effective internal control over financial reporting could result in material misstatements in our financial statements, result in 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.
- Environmental, social and governance matters may impact our business and reputation.

Risks Related to our Company and our Business

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

We have a history of losses and may continue to incur operating and net losses for the foreseeable future. We have recorded a net loss of approximately \$0.5 million for the three months ended March 31, 2024. We incurred net losses of approximately \$4.9 million and \$16.5 million for the years ended December 31, 2023 and December 31, 2022, respectively. As of March 31, 2024, our accumulated deficit was approximately \$191.0 million. We have not achieved profitability on an annual basis. Our net losses and history of negative cash flow have had, and will continue to have, an adverse effect on our stockholders' equity and working capital, and if we are not able to achieve and sustain profitability in the near future or at all our stock price may be depressed. We expect to continue to incur increasing expenses as we develop our sales, marketing distribution and other commercial infrastructure and continue to develop and commercializing our products, including the cost of obtaining and maintaining regulatory approvals.

As of March 31, 2024, our cash and cash equivalents totaled approximately \$27.6 million, of which \$27.4 million was unrestricted, and we had no borrowings outstanding under our line of credit up to \$10.0 million, subject to certain terms and conditions, with Western Alliance Bank. However, 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, lines of credit from other banks, 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, in recent years as a result of various factors including global instability, increased interest rates, and inflationary conditions, among other factors, the global credit and financial markets have experienced extreme volatility, including diminished liquidity and credit availability 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 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.

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

A.S. Watson Group, a related party, accounted for approximately 13.4% of our sales during the three months ended March 31, 2024. 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 and quality that are competitive with those of our competitors, and the potential for new competitors or more aggressive actions by our existing 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.

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, higher interest rates, foreign exchange rates, capital and exchange controls, unstable global credit markets and financial conditions, have led to periods of significant economic instability, declines in consumer confidence and discretionary spending and diminished expectations for the global economy and expectations of slower global economic growth going forward. Our general business strategy may be adversely affected by any such economic downturns, volatile business environments and 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. Specifically, the impact of these volatile and negative conditions may include, but are not limited to, decreased demand for our products and services as consumers may consider the purchase of nutritional products discretionary, 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.

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 addition, the consequences of the ongoing conflict between Russia and Ukraine and the conflict in the Middle East, including related sanctions and countermeasures, and the effects of rising global inflation, are difficult to predict, and could adversely impact geopolitical and macroeconomic conditions, the global economy, and contribute to increased market volatility, which may in turn adversely affect our business and operations.

Our future success largely depends on sales of our Tru Niagen® product.

As 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 and increase consumer awareness of Tru Niagen® our business, results of operations, financial condition, liquidity and growth prospects would be materially adversely affected.

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;
- select the most effective markets, media and specific media vehicles in which to market and advertise; and
- convert consumer inquiries into actual orders.

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 are and may in the future 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.

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;
- our business costs, including increased costs as a result of inflation;
- 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.

Changes in our business strategy, including entering new consumer product markets, restructuring our businesses or other factors 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, including inflationary pressures, may impair the value of our assets and increase our costs. 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.

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. Our commercial opportunity could be reduced if our competitors develop and commercialize products that are more effective or convenient than our products. Our competitors also may obtain regulatory approval for their products in markets we have not yet entered or before we are able to obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter that market. 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.

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 10, *Commitments and Contingencies*, *Contingencies* in the Notes to the Condensed Consolidated Financial Statements, included in Part I, Item 1 of this Quarterly Report on Form 10-Q, 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.

Risks Related to our Operations

Our operating results may fluctuate significantly, which could make our future results difficult to predict and could cause our operating results to fall below expectations.

Our operating results may fluctuate due to a variety of factors, a portion of which are outside of our control. Factors that are difficult to predict and that could cause our operating results to fluctuate include:

- the timing and magnitude of orders, shipments and acceptance of our products, including product returns, order rescheduling and cancellations by our customers;
- our ability to control the costs of the parts and materials we use or to timely adopt subsequent generations of parts and materials;
- our ability to control the costs of the development, sales and distribution of our products;
- disruption in our supply chains, shipping logistics, component availability and related procurement costs;
- our ability to develop, introduce and distribute new products or product enhancements that meet customer requirements and to effectively manage product transitions;
- our reliance on third-party partners involved in the development and supply of new or existing products;
- changes in the competitive dynamics of our markets, including new entrants, new products, or discounting of product prices;
- our ability to control or mitigate costs, including our operating expenses, to support business growth and our continued expansion;
- our ability to upgrade and develop our systems and infrastructure to accommodate growth;
- the impact of inflation on labor and other costs, other adverse economic conditions including the impact of public health epidemics or pandemics;
- disputes and litigation;
- our ability to attract and retain key personnel in a timely and cost-effective manner;
- information technology related costs, disruptions and hindrances;
- our ability to effectively incorporate artificial intelligence (AI) solutions into our operations, services, and systems;
- future regulation by federal, state or local governments; and
- general economic conditions as well as economic conditions specific to the dietary supplement industry.

Our revenues and operating results are and will remain difficult to forecast due to the foregoing factors as the occurrence of any one of these factors could negatively affect our operating results in any particular quarter.

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 dietary supplement 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 business could be negatively impacted by cyber security incidents or threats, including without limitation a material interruption to our operations and our IT systems, a material interruption to our clinical trials, harm to our reputation, significant fines, penalties, litigation, and liabilities, regulatory investigations or lawsuits, including class actions, breach or triggering of data protection laws, privacy policies and data protection obligations, or a loss of revenue, 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 rely may face various cyber security threats, which are prevalent and continue to increase, including, without limitation, cyber security attacks to our information technology infrastructure and attempts by others to gain access to our proprietary or sensitive information and other similar threats, including attacks enhanced or facilitated by artificial intelligence (AI) and other similar threats. We rely upon third parties service providers and technologies to operate critical business systems to process confidential and personal information in a variety of contexts, including, without limitation, third-party providers of cloud-based infrastructure, employee email, and other functions. Our ability to monitor these third-party providers information security practices is limited, and these third-parties may not have adequate information security measures in place. Ransomware attacks, including those from organized criminal threat actors, nation-states and nation-state supported actors, are becoming increasingly prevalent and can lead to significant interruptions, delays, or outages in our operations, loss of data, loss of income, significant extra expenses to restore data or systems, reputational loss and the diversion of funds. Similarly, supply-chain attacks have increased in frequency and severity, and we cannot guarantee that third-parties and infrastructure in our supply chain or our third-party partners' supply-chains have not been compromised or that they do not contain exploitable defects or bugs that could result in a breach of or disruption to our information technology systems (including our products/services) or the third-party information technology systems that support us and our services. There may be additional cyber security threats as our employees have the ability to work from home, utilizing network connections outside of the Company premises. Any of the previously identified or similar threats could cause a security incident or other interruption and 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 our efforts to identify and remediate vulnerabilities, if any, in our information technology systems (including our products), our efforts may not be successful. Further, we may experience delays in developing and deploying remedial measures designed to address any such identified vulnerabilities.

An actual or perceived cyber security incident 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 (including class actions), reputational damage, 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 clinical trials), interruptions in our operations (including availability of data) financial loss, and other similar harms. 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. 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.

Additionally, some applicable federal, state and foreign laws may require companies to notify individuals, government regulators, including state attorneys general, the U.S. Department of Health and Human Services Office of Civil Rights, the U.S. Securities and Exchange Commission, credit agencies and the media, 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.

Any remedial costs or other liabilities related to security incidents may not be fully insured or indemnified by other means. Our contracts may not contain limitations of liability; however, even where they do, there can be no assurance that limitations of liability in our contracts are sufficient to protect us from liabilities, damages, or claims related to our data privacy and security obligations. Although we maintain cyber insurance, we cannot be sure that our insurance coverage will be adequate or sufficient to protect us from or to mitigate liabilities arising out of our privacy and security practices, that such coverage will continue to be available on commercially reasonable terms or at all, or that such coverage will pay future claims.

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 increase in the scope and the scale of our product launches, including entrance into new markets, has resulted in significantly higher operating expenses for increased personnel and fees for regulatory approvals, among other 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 previously and may again 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 previously experienced periods of increased selectivity in providing certain types of coverage, including product liability, cyber, property, and directors' and officers' liability insurance. It is possible that such trends may recur in the future. We currently maintain insurance coverage that aligns with our historical levels and risk management policies. However, we cannot guarantee the availability of comparable insurance coverage on favorable terms, or at all, in the future. Furthermore, some of our customers, as well as prospective customers, stipulate that we maintain specific minimum levels of coverage for our products. Failure to meet these required coverage levels could lead to material changes in business terms or the potential loss of business relationships.

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

Our business depends greatly on the expertise and contributions of several key individuals, including Robert Fried and Brianna Gerber who are our Chief Executive Officer and Chief Financial Officer, respectively. Additionally, we rely on other critical team members, including professionals in scientific research and marketing. The development of our products and services and the effective marketing of our offerings necessitate individuals with specialized skills and experience. Moreover, certain positions within our organization, such as those in manufacturing, quality control, safety and compliance, information technology, sales, and e-commerce, are highly technical and require qualified personnel. We operate within highly competitive markets, and the demand for skilled professionals in our industry is high. Competitors, customers, marketing partners, and other companies in our industry also seek these same talented individuals. Therefore, our ability to succeed is intrinsically linked to our capacity to attract and retain skilled personnel, which will necessitate substantial financial resources. There can be no guarantee that we will successfully identify and attract additional qualified employees or retain our existing team members. Any inability to recruit qualified personnel, the loss of key individuals' services, including our executive officers, or the potential loss of future executive officers or key personnel, may have a material and adverse effect on our business.

We may not be successful in acquiring complementary businesses or products on favorable terms or entry into joint venture or similar arrangements.

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, joint ventures or other arrangements 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. If we enter into future joint ventures or other collaborative arrangements, disruptions in our relationships with our collaborators could also impact the success of our joint venture, and the anticipated benefits may not materialize. 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, as well as those of our contractors, consultants, vendors and other third parties, to control our manufacturing processes, process orders, manage inventory, process and bill shipments and collect cash from our customers, respond to customer inquiries, contribute to our overall internal control processes, maintain records of our property, plant and equipment, and record and pay amounts due vendors and other creditors. If we were to experience a prolonged disruption in our information systems that involve interactions 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.

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, the amount of cash maintained at Western Alliance Bank, 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. 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.

Risks Related to Our Products

We rely on single supplier, W.R. Grace, for NR and a limited number of third-party suppliers for the raw materials required to produce our products.

Our dependence on a limited number of third-party suppliers or on a single supplier, and the challenges we may face in obtaining adequate supplies of raw materials, involve several risks, including limited control over pricing, availability, quality and delivery schedules. We cannot be certain that our current suppliers will continue to provide us with the quantities of these raw materials that we require or satisfy our anticipated specifications and quality requirements. Any supply interruption in limited or sole sourced raw materials could materially harm our ability to manufacture our products until a new source of supply, if any, could be identified and qualified. 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. In particular, W.R. Grace & Co.-Conn. (Grace) is our single source for the supply of NR. Our supply of NR is subject to periodic renewals and these renewals are not guaranteed. In January 2019, Grace was issued patents related to the crystalline form of NR chloride which limit our ability to find alternatives for supply if we are unable to further extend our agreement with Grace. 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.

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 dietary supplement market is highly dependent upon consumer perception regarding the safety, efficacy and quality of dietary 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, social media and other publicity regarding the consumption of dietary supplements. We cannot assure you that future scientific research, findings, regulatory proceedings, litigation, media attention or other research findings or publicity will be favorable to the dietary 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 dietary supplements in general, or our products specifically, or associating the consumption of dietary supplements with illness, could have such a material adverse effect. Even media attention that is immaterial or inaccurate can have an impact on our sales or financial results if widely disseminated to our customers. 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 or class action litigation, 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. 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 have, and 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 or class action litigation 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, supply chain disruptions, quality assurance, health epidemics affecting the region of such suppliers, global instability, 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 experience delays in the development in, or 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 or maintain 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;
- we may rely on third-parties to develop and produce our products, which could lead to increased costs, unanticipated delays, or other negative impacts;
- any products that are approved may not be accepted in the marketplace;
- we may not have adequate financial or other resources to complete the development or to commence the commercialization of our products or will not have adequate financial or other resources to achieve significant commercialization of our products;
- we may not be able to manufacture any of our products in commercial quantities or at an acceptable cost;
- rapid technological change may make our products obsolete;
- we may be unable to effectively protect our intellectual property rights or we may become subject to claims that our activities have infringed the intellectual property rights of others; and
- we may be unable to obtain or defend patent rights for our products.

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

Our ability to remain competitive may depend, in part, on our ability to continue to seek partners that can offer technological improvements and improve existing products and services that are offered to our customers. We are committed to attempting to keep pace with technological change, to stay abreast of technology changes and to look for partners that will develop new products and services for our customer base. We cannot assure prospective or existing 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/or notifications 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.

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 may 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.

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 10, *Commitments and Contingencies, Legal Proceedings* in the Notes to the Condensed Consolidated Financial Statements, included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

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.

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 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

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 may 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.

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 collected 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. The GDPR and UK GDPR set out extensive compliance requirements, including providing detailed disclosures about how personal data is collected and processed, demonstrating that an appropriate legal basis is in place or otherwise exists to justify data processing activities; granting new rights for data subjects in regard to their personal data, as well as enhancing pre-existing rights (e.g., data subject access requests); requiring the appointment of a data protection officer in certain circumstances; mandating the appointment of representatives in the United Kingdom and/or the EEA in certain circumstances; introducing new data transfer frameworks such as the EU-U.S. Data Privacy Framework and the U.K. – U.S. Data Bridge, introducing the obligation to notify data protection regulators or supervisory authorities (and in certain cases, affected individuals) of significant data breaches; imposing limitations on retention of personal data; maintaining a record of data processing; and complying with the principle of accountability and the obligation to demonstrate compliance through policies, procedures, training and audit.

Legal developments in Europe have created complexity and uncertainty regarding transfers of personal data from the European Economic Area, or EEA, to the United States. We continue to execute contracts involving the transfer of personal data outside of the European Economic Area with the Standard Contractual Clauses in the ordinary course. As supervisory authorities issue

further guidance on personal data export mechanisms, including updates to the Standard Contractual Clauses, and/or start taking enforcement action, we could suffer additional costs, complaints and/or regulatory investigations or fines, and/or if we or third parties we work with are otherwise unable to transfer personal data between and among countries and regions in which we conduct business.

Following the United Kingdom's withdrawal from the EEA and the EU, we also have to comply with the UK-specific requirements related to data protection, including with respect to transfer of personal data outside of the UK, which increases our regulatory compliance burden. The UK updated its transfer mechanism and we continue to execute contracts involving the transfer of personal data outside of the United Kingdom with the new UK-specific transfer tools in the ordinary course.

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 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. Each of these state laws adds potential compliance and risk for us with respect to data necessary to operate our business.

A United States federal privacy bill has been introduced, which would establish new requirements for how companies handle personal data, including information that identifies or is reasonably linked to an individual, such as our consumers. If this bill becomes law, we may be required to implement certain security practices to protect and secure personal data against unauthorized access, and we may be subject to further requirements for complying with this requirement if the FTC issues related regulations. Additionally, 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). Other 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; 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.

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. In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. Current or future environmental laws and regulations may impair our research, development or production efforts. In addition, failure to comply with these laws and regulations may result in substantial fines, penalties or other sanctions. 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 related to regulatory approvals to market and sell our goods could adversely affect our ability to generate revenues.

The industries within which we operate are subject to stringent and constantly evolving regulations by a wide range of authorities worldwide. We believe our products are following all applicable regulations in those jurisdictions within which they are sold or marketed. We cannot predict how regulations will evolve or what new requirements may arise in the future and, if so, whether or how such changes may affect any products that we are developing or may attempt to develop. Depending on how regulations evolve, our goods may be suspended or may not be able to be marketed and sold in the United States or in other markets until we have achieved appropriate regulatory compliance as and if implemented by the FDA or other regulatory body. In certain markets and product categories, regulatory approval is a prerequisite for marketing and selling our products. These markets and categories may require adherence to specific regulatory standards, and any failure to obtain or maintain necessary approvals or changes in requirements in these regions could adversely impact our ability to sell our goods there. Satisfaction of regulatory requirements may take 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 countries, states and conditions for which the good is demonstrated to be safe and effective, which could limit our ability to generate revenue. We cannot ensure that any good that we develop will meet all of the applicable regulatory requirements needed to receive marketing clearance. Failure to obtain regulatory approval will prevent commercialization of our goods where such clearance is necessary. There can be no assurance that we will obtain regulatory approval of our proposed goods that may require it.

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

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

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

- our ability to develop and commercialize our products;
- 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 or social media attention 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 inflationary pressures or higher interest rates;
- reductions in purchases from our large customers;
- sales of our common stock by us, our insiders or other stockholders;
- short positions, hedging, or other transactions in our securities;
- 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.

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 March 31, 2024, we had outstanding options for an aggregate of approximately 13.8 million shares of common stock at a weighted average exercise price of \$3.22 per share and unvested restricted stock units of approximately 0.9 million shares. 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.

We have a limited operating history in China and we face risks with respect to conducting business in connection with our joint venture in China due to certain legal, political, economic and social uncertainties relating to China.

During fiscal year 2022, we entered into an agreement to form a joint venture to expand the Company's market strategy to include opportunities in Mainland China and its territories, excluding Hong Kong, Macau and Taiwan. Operating activity under the joint venture was not material during the three months ended March 31, 2024. Our participation in the joint venture in China is subject to general, as well as industry-specific, economic, political and legal developments and risks in China. The Chinese government exercises significant control over the Chinese economy, including but not limited to, controlling capital investments, allocating resources, setting monetary policy, controlling and monitoring foreign exchange rates, implementing and overseeing tax regulations, providing preferential treatment to certain industry segments or companies and issuing necessary licenses to conduct business. In addition, we could face additional risks resulting from changes in China's data privacy and cybersecurity requirements. Accordingly, any adverse change in the Chinese economy, the Chinese legal system or Chinese governmental, economic or other policies could have a material adverse effect on our joint venture in China and our prospects generally.

We face additional risks in China due to China's historically limited recognition and enforcement of contractual and intellectual property rights. We may experience difficulty enforcing our intellectual property rights in China. Unauthorized use of our technologies and intellectual property rights by partners or competitors may dilute or undermine the strength of our brands. If we cannot adequately monitor the use of our technologies and products, or enforce our intellectual property rights in China or contractual restrictions relating to use of our intellectual property by Chinese companies, our revenue could be adversely affected.

Our joint venture will be subject to laws and regulations applicable to foreign investment in China. There are uncertainties regarding the interpretation and enforcement of laws, rules and policies in China. Because many laws and regulations are relatively new, the interpretations of many laws, regulations and rules are not always uniform. Moreover, the interpretation of statutes and regulations may be subject to government policies reflecting domestic political agendas. Enforcement of existing laws or contracts based on existing law may be uncertain and sporadic. As a result of the foregoing, it may be difficult for us to obtain swift or equitable enforcement of laws ostensibly designed to protect companies like ours, which could have a material adverse effect on our business and results of operations. There is no guarantee that we will be able to successfully launch our joint venture.

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, 2017, 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.

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 has 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.

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. The SEC has adopted new rules regarding climate change that, while stayed pending the resolution of various legal challenges, will require significant new disclosure obligations of us and requires us to update and develop our controls to accommodate these new obligations if implemented as adopted.

Environmental, social and governance matters may impact our business and reputation.

Companies across many industries are facing increased scrutiny, including by consumers, investors, employees and other stakeholders, as well as by governmental and non-governmental organizations surrounding environmental, social and governance (ESG) practices. This increased scrutiny and changing expectations with respect to the Company's ESG practices as well as new rules and regulations may result in additional costs or risks. The SEC has adopted new rules regarding climate change that, while stayed pending the resolution of various legal challenges, will require significant new disclosure obligations of us and require us to update and develop our controls to accommodate these new obligations if implemented as adopted. Standards and research regarding ESG practices could change as a result of these rules. In addition, the State of California recently passed the Climate Corporate Data Accountability Act and the Climate-Related Financial Risk Act that will impose broad climate-related disclosure obligations on certain companies doing business in California, starting in 2026. New or revised laws and regulations or new interpretations of existing laws and regulations, such as those related to climate change, could affect the operation of our properties or result in significant additional expense and restrictions on our business operations. If we are unable to satisfy such new criteria, investors may conclude that our policies with respect to corporate responsibility are inadequate. We risk damage to our brand and reputation in the event that our corporate responsibility procedures or standards do not meet the standards set by various constituencies, which could lead to the loss of existing or potential customers and reduced sales. There can be no assurance that investors or other constituents will not publicly advocate for us to not make corporate governance changes or engage in corporate actions and responding to challenges could be costly and time consuming.

Developing and achieving ESG initiatives may result in increased costs in our supply chain, fulfillment, and/or corporate business operations, and could deviate from our initial estimates and have a material adverse effect on our business and financial condition. Furthermore, if our competitors' corporate responsibility performance is perceived to be greater than ours, potential or current investors may elect to invest with our competitors instead. Investor advocacy groups, certain institutional investors, investment funds and other influential investors are increasingly focused on ESG practices and in recent years have placed increasing importance on the non-financial impacts of their investments. Topics taken into account in such assessments include, among others, the company's efforts and impacts on climate change and human rights, ethics and compliance with law and the role of the Company's board of directors in supervising various sustainability issues. In light of investors' and other stakeholders' increased focus on ESG matters, there can be no certainty that we will manage such issues successfully, or that we will successfully meet our investors' or society's ESG expectations. While our mission is to promote healthy aging, if our ESG practices do not meet investor or other industry stakeholder expectations, which continue to evolve, we may incur additional costs and our brand's ability to attract and retain qualified employees and business may be harmed.

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 2. Unregistered Sales of Equity Securities and Use of Proceeds

On March 1, 2024, the Company issued 25,000 shares of the Company's Common Stock with a par value of \$0.001 per share in exchange for services rendered by MDM Worldwide Solutions. Such shares had a fair value of \$40,250, or \$1.61 per share, based upon the quoted closing trading price on the issuance date. The shares issued were not registered under the Securities Act of 1933, as amended (the "Securities Act"), or any state securities laws. The Company relied on the exemption from the registration requirements of the Securities Act by virtue of Section 4(a)(2) thereof and Rule 506 of Regulation D thereunder.

Item 5. Other Information

During our last fiscal quarter, no director or officer, as defined in Rule 16a-1(f), adopted or terminated a "Rule 10b5-1 trading arrangement" or a "non-Rule 10b5-1 trading arrangement," each as defined in Regulation S-K Item 408.

Item 6. Exhibits

Exhibit No.	Description	Incorporated by Reference				Filed or Furnished Herewith
		Form	File Number	Exhibit	Filing Date	
3.1	Amended and Restated Certificate of Incorporation of the Registrant	10-K	001-37752	3.1	3/15/2018	
3.2	Certificate of Amendment to the Certificate of Incorporation of the Registrant	8-K	000-53290	3.1	4/12/2016	
3.3	Amended and Restated Bylaws of the Registrant	8-K	001-37752	3.1	3/17/2023	
31.1	Certification of the Chief Executive Officer pursuant to Rule 13a-14(A) of the Securities Exchange Act of 1934, as amended					X
31.2	Certification of the Chief Financial Officer pursuant to Rule 13a-14(A) of the Securities Exchange Act of 1934, as amended					X
32.1	Certification pursuant to 18 U.S.C. Section 1350 (as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002)					X
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	104 Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)					

SIGNATURES

Pursuant to the requirements 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.

Date: May 8, 2024

CHROMADEx CORPORATION

/s/ BRIANNA L. GERBER

Brianna L. Gerber

Chief Financial Officer

(principal financial officer and duly authorized on behalf of the registrant)

Certification of the Chief Executive Officer
Pursuant to
Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended,
as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Robert N. Fried, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q 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: May 8, 2024

/s/ ROBERT N. FRIED

Robert N. Fried

Chief Executive Officer

Certification of the Chief Financial Officer
Pursuant to
Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended,
as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Brianna L. Gerber, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q 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: May 8, 2024

/s/ BRIANNA L. GERBER

Brianna L. Gerber

Chief Financial Officer

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 Quarterly Report of ChromaDex Corporation (the “Company”) on Form 10–Q for the quarter ended March 31, 2024 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), we, Robert N. Fried, Chief Executive Officer of the Company, and Brianna L. Gerber, Interim 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, as amended; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 8, 2024

/s/ ROBERT N. FRIED

Robert N. Fried
Chief Executive Officer

/s/ BRIANNA L. GERBER

Brianna L. Gerber
Chief Financial Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.