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

FORM 10-K

☒ **Annual Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**
For the fiscal year ended December 31, 2020

☐ **Transition Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**
For the transition period from _____ to _____

Commission File Number: 000-54677

CV Sciences, Inc.
(Exact name of registrant as specified in its charter)

Delaware	80-0944974
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

10070 Barnes Canyon Road, San Diego, CA 92121
(Address of principal executive offices) (Zip Code)

Registrants telephone number, including area code 866-290-2157

Securities registered pursuant to Section 12(b) of the Act: **None**

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
N/A	N/A	N/A

Securities registered pursuant to Section 12(g) of the Act:
Common Stock, $0.0001 par value per share

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

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

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 § 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, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions 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 by check mark 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. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

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

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter.

The aggregate market value of the registrant's common stock held by non-affiliates as of June 30, 2020, the last day of the registrant's most recently completed second fiscal quarter, based upon the closing price of the registrant's common stock as reported by the OTC:QB Marketplace on such date, was approximately $60 million. This calculation does not reflect a determination that persons are affiliates for any other purposes.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date.

As of March 16, 2021, the issuer had106,605,784 shares of issued and outstanding common stock, par value $0.0001.

DOCUMENTS INCORPORATED BY REFERENCE. Certain sections of the registrant’s definitive proxy statement for its 2021 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the end of the registrant’s fiscal year ended December 31, 2020, are incorporated by reference into Part III of this Form 10-K.

CV SCIENCES, INC.
FORM 10-K
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WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information required by the Securities Exchange Act of 1934, as amended (the "Exchange Act"), with the Securities and Exchange Commission (the "SEC"). You may read and copy any document we file with the SEC at the SEC's public reference room located at 100 F Street, N.E., Washington, D.C. 20549, U.S.A. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our SEC filings are also available to the public from the SEC's internet site at http://www.sec.gov.

On our Internet website, http://www.cvsciences.com, we post the following recent filings as soon as reasonably practicable after they are electronically filed with or furnished to the SEC: our annual reports on Form 10-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K, and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act.

When we use the terms "CV Sciences", "Company", "we", "our" and "us" we mean CV Sciences, Inc., a Delaware corporation, and its consolidated subsidiaries, taken as a whole, as well as any predecessor entities, unless the context otherwise indicates.

FORWARD LOOKING STATEMENTS

This Annual Report on Form 10-K, the other reports, statements, and information that the Company has previously filed with or furnished to, or that we may subsequently file with or furnish to, the SEC and public announcements that we have previously made or may subsequently make include, may include, or may incorporate by reference certain statements that may be deemed to be "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, and that are intended to enjoy the protection of the safe harbor for forward-looking statements provided by that Act. To the extent that any statements made in this report contain information that is not historical, these statements are essentially forward-looking. Forward-looking statements can be identified by the use of words such as "anticipate", "estimate", "plan", "project", "continuing", "ongoing", "expect", "believe", "intend", "may", "will", "should", "could", and other words of similar meaning. These statements are subject to risks and uncertainties that cannot be predicted or quantified and, consequently, actual results may differ materially from those expressed or implied by such forward-looking statements. Such risks and uncertainties include, without limitation, marketability of our products; legal and regulatory risks associated with OTC Markets; our ability to raise additional capital to finance our activities; the future trading of our common stock; our ability to operate as a public company; our ability to protect our proprietary information; general economic and business conditions; the volatility of our operating results and financial condition; our ability to attract or retain qualified senior management personnel and research and development staff; the risk that our results could be adversely affected by natural disaster, public health crises (including, without limitation, the recent spread and continuing outbreak of Coronavirus, or COVID-19), political crises, negative global climate patterns, or other catastrophic events; and other risks detailed from time to time in our filings with the SEC, or otherwise.

Information regarding market and industry statistics contained in this report is included based on information available to us that we believe is accurate. It is generally based on industry and other publications that are not produced for purposes of securities offerings or economic analysis. Forecasts and other forward-looking information obtained from these sources are subject to the same qualifications and the additional uncertainties accompanying any estimates of future market size, revenue and market acceptance of products and services. We do not undertake any obligation to publicly update any forward-looking statements. As a result, investors should not place undue reliance on these forward-looking statements.

PART I

ITEM 1. BUSINESS

Overview

CV Sciences, Inc. ("CV Sciences," "we," "our" or "us") is a life science company that operates two distinct business segments: (i) a consumer product division focused on developing, manufacturing, marketing and selling plant-based dietary supplements and hemp-based cannabidiol ("CBD") products to a range of market sectors; and (ii) a specialty pharmaceutical segment focused on developing and commercializing CBD-based novel therapeutics utilizing CBD. The Company's consumer products are marketed and sold at more than 7,300 retail locations throughout the United States. According to SPINS, the leading provider of syndicated data and insights for the natural, organic, and specialty products industry, the Company's *PlusCBD*™ product is the top-selling brand of hemp-derived CBD in the natural product retail market. CV Sciences' state-of-the-art facility follows all guidelines for Good Manufacturing Practices ("GMP") and our hemp extracts are processed, produced, and tested throughout the manufacturing process to confirm that the cannabinoid content meets strict company standards. With a commitment to science, our products' benefits in healthy people are supported by human clinical research data, in addition to three published clinical case studies available on PubMed.gov. *PlusCBD*™ was the first hemp CBD supplement brand to invest in the scientific evidence necessary to achieve self-affirmed Generally Recognized as Safe ("GRAS") status. We have primary offices and facilities in San Diego, California.

Current Operations

Consumer Products

We manufacture and distribute more than 50 products and expect to continue to add new products to our portfolio to enhance our line of CBD and plant-based dietary supplements. We also expect to develop and launch new product lines and brands to more effectively market and sell specific products. Our mission and core values inform our product development and market positioning.

Our Mission:

> Our mission is to improve quality of life through nature and science.

Our Core Values:

- Provide the best products.
- We look to nature and lean into science to create extraordinary products that transform health, so people can best navigate the course of their lives.
- Make positive impacts.
- We strive to ensure the impact of our actions is net positive for our customers, our employees, and our planet.
- Be bold and brave.
- We are committed to positively impacting people's lives - even if it means taking a bold or unconventional approach.

We develop, manufacture, market and sell plant-based dietary supplements and CBD products under the following brands: *PlusCBD™, PlusCBD™ Pet, ProCBD™, HappyLane™, ProCBD™, CV™Acute, CV™Defense,* and *PlusCBD™ Pet* in the Health Care market sector including nutraceutical, beauty care, specialty foods, and pet products.

- ***PlusCBD™*** - Our award-winning line of products available in softgel, tinctures, topicals, and gummies. It is our first brand to market in 2014 and the top-selling brand of hemp-derived CBD in the natural product retail market. *PlusCBD™* is backed by published research, third party safety testing, and rigorous quality standards.
- ***PlusCBD™ Pet*** - Products under our *PlusCBD™ Pet* brand offer all the hemp extract benefits offered by *PlusCBD™* formulated just for cats and dogs. *PlusCBD™ Pet* provides physical and emotional support to help address the stress and physical discomfort keeping pets from being their best. Available in easy to use liquids and flavors: beef, chicken, salmon, and peanut butter.

- ***ProCBD™*** - Products under our *ProCBD™* brand are available exclusively through health practitioners. These clinical strength formulas were designed to fit seamlessly with patient care plans. Available in softgels, liquids, and roll-ons.
- ***HappyLane™*** - Our worry-free CBD for those looking to avoid even trace amount of THC. *HappyLane™* features different softgels, roll-ons, liquids, chews, and gummies in unique flavors, and easy to use form factors, all with less than 0.00% THC.
- ***CV™Immunity*** - Our award-winning line of non-CBD daily and intensive immune support products.
    - ***CV™Acute*** - A clinically supported immunity product for intense support. *CV™Acute* features formulas and ingredients backed by clinical research and cited by the World Health Organization for immune support.
    - ***CV™Defense*** - A clinically supported immunity product for daily support. *CV™Defense* features formulas and ingredients (PEA) backed by six double-blind placebo-controlled clinical trials.

Hemp-based CBD is one of more than 100 cannabinoids found in hemp and is non-psychoactive. Our U.S. based operations oversee our raw material supply chain, raw material processing, product development and manufacturing, and sales and marketing. We will continue to scale operations to accommodate market conditions.

Specialty Pharmaceuticals

Our specialty pharmaceutical segment is developing cannabinoids to treat medical indications. Cannabinoids are compounds derived from the *Cannabis sativa* plant, which contains two primary cannabinoids, CBD, and tetrahydrocannabinol ("THC"). Clinical and preclinical data suggest that CBD has promising results in treating a range of medical indications. We acquired drug development assets in the CanX acquisition, utilizing CBD as the active pharmaceutical ingredient.

Our first product candidate, CVSI-007, combines CBD and nicotine in treatment of smokeless tobacco use and addiction. There are currently no drugs approved by the U.S. Food and Drug Administration ("FDA") for treatment of smokeless tobacco use and addiction. The worldwide smokeless tobacco addiction treatment market is estimated at greater than $2 billion. We believe this product candidate will provide treatment options for this significant unmet medical need. CVSI-007 is based on proprietary formulations, processes and technology. In May 2016, we filed a patent application for these formulation and processes with the U.S. Patent and Trademark Office ("USPTO"). On May 19, 2020, we received a formal notice of issuance from the USPTO for our patent application 15/426,617. The patent covers methods of treating smokeless tobacco addiction by administering pharmaceutical formulations containing CBD and nicotine. The communication between the USPTO and CV Sciences concluded substantive examination of the patent application, resulting in formal issuance of the patent. We are pursuing similar patent protection in other key markets throughout the world. During the year ended December 31, 2020, we received a notice of allowance from the Japan Patent Office.

We will continue our development efforts as we seek approval from the FDA to commercialize the world's first and only FDA-approved treatment for smokeless tobacco addiction. We currently contract with qualified parties and contract research organizations for our preclinical research and Investigational New Drug application ("IND") preparation and development. Commercialization of future specialty pharmaceutical products in the United States and other territories may rely on licensing and co-promotion agreements with strategic partners. If we choose to build a commercial infrastructure to support marketing in the United States, such commercial infrastructure could include a sales organization, internal sales support, an internal marketing group and distribution support. However, we anticipate that building such a commercial infrastructure will require significant investment.

Description of our Subsidiaries

CV Sciences was incorporated under the name Foreclosure Solutions, Inc. in the State of Texas on December 9, 2010. On July 25, 2013, CannaVest Corp., a Texas corporation ("CannaVest Texas"), merged with CV Sciences, a wholly-owned Delaware subsidiary of CannaVest Texas, to effectuate a change in the Company's state of incorporation from Texas to Delaware. On January 4, 2016, we filed a Certificate of Amendment of Certificate of Incorporation reflecting our corporate name change to "CV Sciences, Inc.", effective on January 5, 2016. In addition, on January 4, 2016, we amended our Bylaws to reflect our corporate name change to "CV Sciences, Inc."

On December 30, 2015, we completed the acquisition of CanX, Inc., a Florida-based specialty pharmaceutical corporation ("CanX"). Acquired assets included in-process research and development, trade names and non-compete agreements associated with pharmaceutical product development programs and a line of consumer products.

On August 7, 2019, we filed a Certificate of Cancellation for Plus CBD, LLC (formerly, "Global Hemp Source, LLC") with the Secretary of State of California. CANNAVEST Acquisition, LLC, a Delaware limited liability company formed in connection with the CanX Acquisition was dissolved in 2018, with administrative approval in Florida carrying over into January 2019 before final resolution. We previously owned a 70% interest in CannaVest Europe, GmbH. On January 20, 2017, we filed for dissolution

of CannaVest Europe, GmbH, with the District Court, Dusseldorf Germany, effective December 31, 2016. CannaVest Europe GmbH did not have any assets or liabilities at the time of its dissolution. As of December 31, 2020, we no longer own interest in any subsidiaries.

Government Regulation

We are subject to local and federal laws and regulations pertaining to the sale of hemp derived CBD products in our operating jurisdictions. We maintain required licenses for sourcing, manufacturing, and distribution; as well as monitor changes in laws, regulations, treaties, and agreements.

The Agriculture Improvement Act of 2018, known as the "2018 Farm Bill", is United States federal legislation signed into law on December 20, 2018, that provides the legal framework for hemp-based products. The 2018 Farm Bill permanently removed “hemp” from the purview of the Controlled Substances Act, and accordingly, the U.S. Drug Enforcement Administration (“DEA”) no longer has any claim to interfere with the interstate commerce of hemp products. Some of the immediate impact from this legislation includes the ability for hemp farmers to access crop insurance and U.S. Department of Agriculture (“USDA”) programs for competitive grants.

The 2018 Farm Bill officially removes the DEA from enforcement of hemp regulations; however, the U.S. Food and Drug Administration (“FDA”) retains its authority to regulate ingestible and topical hemp products, including hemp extracts that contain CBD. Although no longer a controlled substance under federal law, cannabinoids derived from industrial hemp are still subject to a patchwork of state regulations. We have dedicated staff that actively monitors state regulations and proposed regulations to ensure compliance.

A range of federal laws and regulations govern sourcing, manufacturing, distribution, sales, and marketing of hemp derived CBD products in the U.S. Products sold for oral consumption as liquids, tablets, capsules, softgels, or gummies are under the purview of The Dietary Supplement Health and Education Act of 1994 (“DSHEA”). Under DSHEA, supplement manufacturing is regulated by the FDA for current Good Manufacturing Practices (“cGMP”) under 21 CFR Part 111. Furthermore, DSHEA defines a “dietary supplement” as a product intended to supplement the diet that contains one or more of the following: (a) a vitamin; (b) a mineral; (c) an herb or other botanical; (d) an amino acid; (e) a dietary substance for use by man to supplement the diet by increasing the total dietary intake; or (f) a concentrate, metabolite, constituent, extract, or combination of any ingredient described in clause (a) through (e). Thus, the law permits a wide range of dietary ingredients in dietary supplements, including CBD, which is an extract of hemp (Cannabis sativa L.), which is a legal botanical. CBD also falls under clause (e) as it is a dietary substance for use by man to supplement the diet by increasing the total dietary intake.

In conjunction with the enactment of the 2018 Farm Bill, the FDA released a statement about the regulatory status of CBD. The statement noted that the 2018 Farm Bill explicitly preserved the FDA’s authority to regulate products containing cannabis or cannabis-derived compounds under the U.S. Federal Food, Drug, and Cosmetic Act (“FDCA”) and Section 351 of the Public Health Service Act. This authority allows the FDA to continue enforcing the law to protect the public while also providing potential regulatory pathways for products containing cannabis and cannabis-derived compounds. The statement also noted the growing public interest in cannabis and cannabis-derived products, including CBD, and informed the public that the FDA will treat products containing cannabis or cannabis-derived compounds as it does any other FDA-regulated products — meaning the products will be subject to the same authorities and requirements as FDA-regulated products containing any other substance, regardless of the source of the substance, including whether the substance is derived from a plant that is classified as hemp under the 2018 Farm Bill. The FDA’s CBD enforcement discretion and regulatory actions with regards to CBD provide regulatory guidance to the CBD industry.

As of the date of this report, and based upon publicly available information, to our knowledge the FDA has not taken any enforcement actions against CBD companies that are compliant with the FDCA. The FDA, however, has sent Warning Letters to companies demanding they cease and desist from the production, distribution, or advertising of CBD products when these companies have made prohibited, misleading, and unapproved drug claims. We continue to monitor the FDA’s position on CBD.

We are subject to federal and state consumer protection laws, including laws protecting the privacy of customer non-public information; the handling of customer complaints; the requirement to provide warnings about exposures to chemicals with adverse health effects; and regulations prohibiting unfair and deceptive trade practices.

The growth and demand for online commerce has resulted in more stringent consumer protection laws that impose additional compliance burdens on online companies. These laws cover issues such as user privacy, spyware and the tracking of consumer activities, marketing e-mails and communications, other advertising and promotional practices, money transfers, pricing, product safety, content and quality of products and services, taxation, electronic contracts and other communications and information security.

There is uncertainty over whether or how existing laws governing issues such as sales and other taxes, auctions, libel, and personal privacy apply to the internet and commercial online services. These issues are predicted to take years to resolve. For example, tax authorities in some states, as well as a Congressional advisory commission, are currently reviewing the appropriate tax treatment of companies engaged in online commerce. Furthermore, new state tax regulations may subject CV Sciences to additional state sales and income taxes. Other areas that may result in significant additional taxes or regulatory restrictions include, without limitation, new legislation or regulation; the application of laws and regulations from jurisdictions whose laws do not currently apply; or the application of existing laws and regulations to the internet and commercial online services. These taxes or restrictions could have an adverse effect on our cash flow, output, and overall financial condition. Furthermore, there is a possibility that we may be financially responsible for past failures to comply with requirements.

Sales and Distribution

Our products are currently sold online through our websites (www.pluscbdoil.com and www.cvsciences.com), select distributors, brick and mortar retailers, and select e-tailers. We have relationships with wholesalers, distributors and retailers across the food, drug and mass ("FDM"), natural product, specialty, professional market, and convenience industries. We utilize our knowledgeable partners to display and present our products to customers in their brick and mortar stores. These relationships are important to ensure consumers across a variety of sales channels have access to our products. These partnerships and our expansive distribution allow us to build consumer trust in our brand and products. We have additional partners in the natural product channel to service our retail customers by stocking and displaying products and explaining product attributes and health benefits. We also utilize e-commerce platforms to reach consumers and guide them through the CBD buying process as we believe consumers rely heavily on digital research.

Markets, Geography, Seasonality, and Major Customers

Our products are predominantly sold in North America and primarily in the retail space. Based on our current and historical balance sheets and statement of operations, it does not appear that our business or operations experience any seasonality with respect to our sales as any such seasonality appears to be unpredictable. Although we believe our customers' historical buying patterns and budgetary cycles may be a factor that impacts our quarterly sales results, we are not able to reliably predict our sales based on seasonality because outside factors (timing of orders, introduction of new products, and other economic factors impacting our industry) can also substantially impact our sales patterns during the year.

Furthermore, because the majority of our sales are spread amongst various retailers, distributors, and direct consumers, our largest customer only accounted for approximately 3% of our sales. As a result, we do not believe our financial condition and results of operations is dependent on any one particular major customer.

Working Capital Items

Our inventory levels are currently adequate for our short-term needs based upon present level of demand. We consider our products to be generally available and current suppliers to be reliable and capable of satisfying anticipated needs.

Competition

The CBD-based consumer product industry is highly competitive and fragmented with numerous companies, consisting of publicly- and privately-owned companies, such as Charlotte's Web Holdings Inc., cbdMD, Inc., Medterra CBD, Inc., and many others. There are also large, well-funded companies that have indicated their intention to compete in the hemp-based product category in the U.S. We routinely evaluate internal and external opportunities to optimize value for shareholders through new product development or by asset acquisitions or sales and believe we are well-positioned to capitalize in the growing CBD product category.

There are several companies developing cannabinoid therapeutics for a range of medical indications. The cannabinoid therapeutic area currently includes formulated extracts of the *Cannabis* plant and synthetic formulations. These formulations include CBD or THC, or a combination of CBD and THC as the active pharmaceutical ingredient. Certain companies such as GW Pharmaceuticals plc have focused on plant-based CBD formulations, while other companies such as Zynerba Pharmaceuticals, Inc. and Insys Therapeutics, Inc. have focused on synthetic CBD formulations.

Intellectual Property

We have filed trademark applications on our brands, logos and marks in the U.S. and internationally. On January 30, 2016, we received a Notice of Allowance from the U.S. Patent and Trademark Office for our utility patent application number 14/791,184, Novel Process for Generating Hemp Oil with a High CBD Content. This patent covers our solvent-free and highly repeatable process for producing hemp oil with higher concentrations of CBD and expires in 2033.

In May 2016, we filed a patent application for our product candidate CVSI-007 with the USPTO. On May 19, 2020, we received formal notice of issuance from the USPTO for our patent application 15/426,617. The patent covers methods of treating smokeless tobacco addiction by administering pharmaceutical formulations containing CBD and nicotine. The communication between the USPTO and us concluded substantive examination of the patent application, resulting in formal issuance of the patent. We are pursuing similar patent protection in other key markets throughout the world. During the year ended December 31, 2020, we received a notice of allowance from the Japan Patent Office.

We review our intellectual property portfolio on a periodic basis, and we will continue to broaden our portfolio in a fiscally prudent manner. We rely on a combination of trade secret laws and restrictions on disclosure to protect our intellectual property rights.

Research and Development

Our research and development costs have consisted primarily of salaries and related personnel expense, facilities and equipment expense and other costs related to both our consumer product and drug development business segments. We charge all research and development expenses to operations as incurred in the ongoing development of new consumer products and in development of our drug candidate CVSI-007. We established a cross-functional innovation process for our consumer products development using a modified stage gate process. Our new product development activities include ideation and feasibility, product development, scaleup and validation, and product launch. We incurred research and development expenses of $2.9 million and $5.9 million, respectively, for the years ended December 31, 2020 and 2019.

Raw Materials and Product Manufacturing

We have invested significant capital to develop and maintain relationships with growers on a global scale to ensure access to raw materials to support anticipated revenue growth. We have historically sourced our raw materials from well-established and well-recognized hemp growers in Europe. In addition, we have developed relationships with hemp growers in the United States and have started to purchase raw materials domestically as well. We have maintained access to these growers for their raw material supply and continue to explore and develop other relationships to ensure that we can meet the expected demand for hemp-based consumer products well into the future.

We are committed to producing a quality product and testing transparency. Our goals include the optimization of our product manufacturing processes and the sourcing of reliable, high-quality raw materials. Our testing procedures are robust and comprehensive, starting with a supply chain built through our supplier verification program. All incoming cannabinoid ingredients are required to be first tested by the supplier at an independent, ISO accredited, third-party laboratory before they reach our production facilities and a Certificate of Analysis provided with each delivery. We then have the cannabinoid ingredients re-tested by an independent, ISO accredited, third-party laboratory to verify the supplier results before they are released into our production process. We test in-house throughout the production process before sending the finished goods off for final verification by an independent ISO accredited third-party laboratory to ensure the finished products meet our high standards.

We are dedicated to providing the highest quality CBD consumer products on the market. We strive to meet or exceed the FDAs GMP guidelines. These guidelines provide a system of processes, procedures and documentation to assure a product has the identity, strength, composition, quality and purity that appear on its label. Our third party manufacturers use FDA-registered facilities which are independently GMP certified and subject to continuing independent audit and certification.

Environmental Matters

No significant pollution or other types of hazardous emission result from the Company's operations, and it is not anticipated that our operations will be materially affected by federal, state or local provisions concerning environmental controls. Our costs of complying with environmental health and safety requirements have not been material.

Furthermore, compliance with federal, state and local requirements regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, have not had, nor are they expected to have, any material effect on the capital expenditures, earnings or competitive position of the Company. However, we will continue to monitor emerging developments in this area.

Employees

We believe that our future success will depend, in part, on our ability to continue to attract, hire, and retain qualified personnel. As of December 31, 2020, we had a total of 96 employees, which included 91 full-time and 5 part-time employees. In addition to our full-time employees, we contract with third-parties for the conduct of certain marketing, sales and manufacturing efforts as well as certain preclinical, clinical and manufacturing activities related to drug development efforts. Employee health and safety in the workplace is one of our core values. The COVID-19 pandemic has underscored for us the importance of keeping our employees safe and healthy. In response to the pandemic, we have taken actions aligned with the World Health Organization and the Centers for Disease Control and Prevention in an effort to protect our employees, so they can more safely and effectively perform their work. We have no collective bargaining agreements with our employees, and none are represented by labor unions. Management believes the Company has good relationships with its employees.

Company Websites

We maintain a corporate Internet website at: www.cvsciences.com. In addition, we sell our products online at: www.pluscbdoil.com. The contents of these websites are not incorporated in or otherwise to be regarded as part of this Annual Report on Form 10-K.

We file reports with the SEC, which are available on our website free of charge. These reports include annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, “Section 16” filings on Form 3, Form 4, and Form 5, and other related filings, each of which is provided on our website as soon as reasonably practical after we electronically file such materials with or furnish them to the SEC. In addition, the SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including the Company.

ITEM 1A. RISK FACTORS

Not applicable to a “smaller reporting company” as defined in Item 10(f)(1) of Regulation S-K.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

As of December 31, 2020, our primary facility consists of approximately 30,000 square feet of leased office, laboratory and warehouse space located in San Diego, California, which is leased through January 2026 and used by both of our business segments. We lease an additional facility in San Diego related to our distribution activities that covers an aggregate of approximately 2,500 square feet, which is leased through March 2021, after which we agreed with the landlord to continue to lease the space on a month to month basis, with a 90 days notice period for termination. On July 27, 2020, we entered into a lease termination agreement for a 45,500 square foot production and warehouse facility in San Diego, which was effective August 31, 2020. We believe that our existing facilities are sufficient to accommodate our current and future operations.

ITEM 3. LEGAL PROCEEDINGS

For a description of our material pending legal proceedings, please see Note 12, Commitments and Contingencies, to our consolidated financial statements included in Part IV in this Annual Report on Form 10-K.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is traded on the OTC:QB under the symbol "CVSI." Trading of securities on the OTC:QB is often sporadic and investors may have difficulty buying and selling or obtaining market quotations. Any OTC:QB market quotations reflect inter-dealer quotations, without adjustment for retail mark-up, mark-down, or commission and may not necessarily represent actual transactions.

Holders of Common Stock

As of February 18, 2021, there were 37 registered shareholders of our common stock.

Dividend Policy

No cash dividends have been paid on our common stock for the 2020 and 2019 fiscal years and the Board of Directors has not considered any change in this practice, and has no intentions of considering any such change in the foreseeable future.

The payment of cash dividends in the future, if ever, will be determined by our Board of Directors, in light of conditions then existing, including our earnings, financial requirements, and opportunities for reinvesting earnings, business conditions, and other factors. There are otherwise no restrictions on the payment of dividends.

Equity Compensation Plan Information

See Part III, Item 12. "Securities Ownership of Certain Owners and Management and Related Stockholder Matters" for information regarding securities authorized for issuance under equity compensation plans.

Unregistered Sales of Equity Securities

None.

Issuer Repurchases of Equity Securities

We did not repurchase any shares of our common stock during the fourth quarter of the fiscal year covered by this Annual Report on Form 10-K.

ITEM 6. SELECTED FINANCIAL DATA

Not applicable to a “smaller reporting company” as defined in Item 10(f)(1) of SEC Regulation S-K.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of our financial condition and results of operations for the years ended December 31, 2020 and 2019 should be read in conjunction with our consolidated financial statements and the notes to those statements that are included elsewhere in this Annual Report on Form 10-K. Our discussion includes forward-looking statements based upon current expectations that involve risks and uncertainties, such as our plans, objectives, expectations and intentions. Actual results and the timing of events could differ materially from those anticipated in these forward-looking statements as a result of a number of factors. We use words such as “anticipate”, “estimate”, “plan”, “project”, “continuing”, “ongoing”, “expect”, “believe”, “intend”, “may”, “will”, “should”, “could”, and similar expressions to identify forward-looking statements.

OVERVIEW

We are a life science company with two distinct business segments. Our consumer product segment is focused on manufacturing, marketing and selling hemp-based CBD products to a range of market sectors. Our specialty pharmaceutical segment is focused on developing and commercializing novel therapeutics utilizing CBD. We are traded on the OTC:QB, and our trading symbol is CVSI.

Our consumer product business segment manufactures, markets and sells a variety of consumer products containing hemp-based CBD under our*PlusCBD*™ brand in a range of market sectors including nutraceutical, beauty care and specialty foods.

Our specialty pharmaceutical business segment is developing cannabinoids to treat a range of medical indications. Our product candidates are based on proprietary formulations, processes and technology that we believe are patent-protectable, and we plan to vigorously pursue patent protection on our drug candidates.

We expect to realize revenue from our consumer products business segment to fund our working capital needs. However, in order to fund our pharmaceutical product development efforts, we will need to raise additional capital either through the issuance of equity and/or the issuance of debt. In the event we are unable to fund our drug development efforts, we may need to curtail, partner or delay such activity.

Results of Operations

Comparison of the Years ended December 31, 2020 vs. December 31, 2019

Revenues and gross profit

	Year ended December 31,		Change	
	2020	2019	Amount	%
	(in thousands)			
Product sales, net	$ 24,429	$ 53,696	$ (29,267)	(55)%
Cost of goods sold	13,420	18,608	(5,188)	(28)%
Gross profit	$ 11,009	$ 35,088	$ (24,079)	(69)%
Gross margin	45.1 %	65.3 %		

Revenue by channel

	Year ended December 31, 2020		Year ended December 31, 2019	
	Amount	% of product sales, net	Amount	% of product sales, net
	(in thousands)		(in thousands)	
Retail - FDM	$ 1,651	6.8 %	$ 2,229	4.2 %
Retail - Natural products and other	15,073	61.7 %	41,534	77.3 %
E-Comm	7,705	31.5 %	9,933	18.5 %
Product sales, net	$ 24,429	100.0 %	$ 53,696	100.0 %

We had product sales of $24.4 million and gross profit of $11.0 million, representing a gross margin of 45.1% in 2020 compared with product sales of $53.7 million and gross profit of $35.1 million, representing a gross margin of 65.3% in 2019. Our product sales decreased by $29.3 million or 55% in 2020 when compared to 2019 results. The decline is primarily due to lower retail sales as a result of COVID-19 and increased market competition, which is largely due to the lack of a clear regulatory framework. As of December 31, 2020, our products were in 7,346 retail stores, of which 4,332 were with retailers in the FDM channel. The store count increased from 5,567 stores as of December 31, 2019. For the years ended December 31, 2020 and 2019, e-commerce sales accounted for 31.5% and 18.5% of revenue, respectively.

During the second half of 2020, we launched the following new products:

- Refresh of our PlusCBD™ branded product line
- 30+new PlusCBD™ products
- Happy Lane™, a new THC-free CBD brand
- CV Acute™, to support immune system and respiratory health
- CV Defense™, to provide daily immune support
- PlusCBD™Pet, a full line of hemp extracts formulated for dogs and cats
- ProCBD™, a full product line exclusively through health care practitioners

Cost of goods sold consists primarily of raw materials, packaging, manufacturing overhead (including payroll, employee benefits, stock-based compensation, facilities, depreciation, supplies and quality assurance costs), merchant card fees and shipping. Cost of

goods sold in 2020 increased as a percentage of revenue due to higher overhead and production cost compared to 2019. The gross profit decrease of $24.1million or 69% to $11.0 million in 2020 is mostly driven by the decline in product sales. Gross margins decreased from 65.3% in 2019 to 45.1% in 2020. The decrease is primarily due to higher overhead cost and associated volume deleverage, increased production cost, and reduced sales pricing as a result of increased market competition.

Research and development expense

	Year ended December 31,		Change	
	2020	2019	Amount	%
	(in thousands)			
Research and development expense	$ 2,943	$ 5,877	$ (2,934)	(50)%
Percentage of revenue	12.0 %	10.9 %		

Research and development (“R&D”) expense decreased to $2.9 million in 2020 compared to $5.9 million in 2019. The decrease is related to reductions in R&D expenses for our specialty pharmaceutical segment of $1.5 million and for our consumer products segment of $1.4 million. We incurred $0.7 million and $2.1 million of R&D expense related to our consumer products segment in 2020 and 2019, respectively. The reduction in R&D expense in our consumer products segment is mostly related to lower personnel cost and cost for outside services for new consumer product developments. We incurred $2.2 million and $3.8 million of R&D expenses related to our specialty pharmaceutical segment in 2020 and 2019, respectively. The reduction in R&D expense in our specialty pharmaceutical segment is mostly related to reduced activities related to preclinical work, development cost associated with our active pharmaceutical ingredient ("API"), and expenses paid to outside consultants.

Selling, general and administrative expense

	Year ended December 31,		Change	
	2020	2019	Amount	%
	(in thousands)			
Selling, general and administrative expense	$ 30,658	$ 46,451	$ (15,793)	(34)%
Percentage of revenue	125.5 %	86.5 %		

	Year ended December 31, 2020		Year ended December 31, 2019	
	Amount	% of product sales, net	Amount	% of product sales, net
	(in thousands)		(in thousands)	
Sales expense	$ 4,543	18.6 %	$ 7,439	13.8 %
Marketing expense	6,759	27.7 %	12,065	22.5 %
General & administrative expense	19,356	79.2 %	26,947	50.2 %
Selling, general and administrative expense	$ 30,658	125.5 %	$ 46,451	86.5 %

Selling, general and administrative (“SG&A”) expenses decreased to $30.7 million in 2020 compared to $46.5 million in 2019.

- Sales expense decreased due to a decrease in sales commissions resulting from lower retail sales primarily due to COVID-19.
- Marketing expense decreased due to lower marketing activity and third party consultant spending.
- General and administrative expense decreased primarily due to decreased share-based compensation and payroll expense, partially offset by impairment charge in 2020 for the founder RSU settlement. During 2019, we had stock-based compensation expense of $9.5 million and payroll expense of $1.6 million related to the settlement of our former founders' employment agreements. During 2020, we derecognized the tax receivable for founder RSU settlement of $6.2 million. For more information regarding the founder RSU settlement, please see Note 11, Related Parties, to our consolidated financial statements included in Part IV in this Annual Report on Form 10-K.

Non-GAAP Financial Measures

We use Adjusted EBITDA internally to evaluate our performance and make financial and operational decisions that are presented in a manner that adjusts from their equivalent GAAP measures or that supplement the information provided by our GAAP measures. Adjusted EBITDA is defined by us as EBITDA (net income (loss) plus depreciation expense, amortization expense, and interest expense, minus income tax benefit), further adjusted to exclude certain non-cash expenses and other adjustments as set forth below. We use Adjusted EBITDA because we believe it helps to provide insights in trends in our business in addition to GAAP financial measures, since Adjusted EBITDA eliminates from our results specific financial items that have less bearing on our core operating performance.

We use Adjusted EBITDA in communicating certain aspects of our results and performance, including in this Annual Report, and believe that Adjusted EBITDA, when viewed in conjunction with our GAAP results and the accompanying reconciliation, can provide investors with additional understanding of factors affecting our financial condition and results of operations than GAAP measures alone. In addition, we believe the presentation of Adjusted EBITDA is useful to investors in making period-to-period comparison of results because the adjustments to GAAP are not reflective of our core business performance.

Adjusted EBITDA is not presented in accordance with, or as an alternative to, GAAP financial measures and may be different from non-GAAP measures used by other companies. We encourage investors to review the GAAP financial measures included in this Annual Report, including our consolidated financial statements, to aid in their analysis and understanding of our performance and in making comparisons.

A reconciliation from our net income (loss) to Adjusted EBITDA, a non-GAAP measure, for the years ended December 31, 2020 and 2019 is detailed below:

	Year ended December 31, 2020			Year ended December 31, 2019		
	Consumer Products	Specialty Pharma	Total	Consumer Products	Specialty Pharma	Total
	(in thousands)					
Net loss	$ (19,908)	$ (2,376)	$ (22,284)	$ (12,793)	$ (3,817)	$ (16,610)
Depreciation	836	—	836	681	—	681
Amortization	—	36	36	—	35	35
Interest expense (income)	9	—	9	(15)	—	(15)
Income tax benefit	(317)	—	(317)	(615)	—	(615)
EBITDA	(19,380)	(2,340)	(21,720)	(12,742)	(3782)	(16,524)
Stock-based compensation (1)	3,744	137	3,881	5,426	163	5,589
Stock-based compensation associated with founder employment settlements (2)	—	—	—	9,531	—	9,531
Payroll expense associated with founder employment settlements (3)	—	—	—	1,585	—	1,585
Derecognition of tax receivable for founder RSU settlement (4)	6,229	—	6,229	—	—	—
Adjusted EBITDA	$ (9,407)	$ (2,203)	$ (11,610)	$ 3,800	$ (3,619)	$ 181

(1) Represents stock-based compensation expense related to stock options and warrants awarded to employees, consultants and non-executive directors based on the grant date fair value using the Black-Scholes valuation model.
(2) Represents stock-based compensation expense related to accelerated vesting of RSU's, accelerated vesting of certain performance stock options and the modification of certain stock options associated with the separation of our founders.
(3) Represents accrued payroll and related benefits associated with the separation of our founders.
(4) Represents the derecognition of the tax receivable related to founder RSU settlement. For more information, please see Note 11, Related Parties, to our consolidated financial statements included in Part IV in this Annual Report on Form 10-K.

Liquidity and Capital Resources

During the year ended December 31, 2020, our primary sources of capital came from (i) cash flows from our operations, predominantly from the sale of our CBD products, (ii) existing cash, (iii) government loans, and (iii) proceeds from third-party financings.

COVID-19 has spread (and continues to spread) worldwide, resulting in shutdowns of manufacturing and commerce. COVID-19 has resulted in government authorities implementing numerous measures to try to contain it, such as travel bans and restrictions, quarantines, shelter-in-place orders, and shutdowns. These measures have impacted, and may further impact, our workforce and operations, the operations of our customers and our partners, and those of our respective vendors and suppliers. Our critical business operations, including our headquarters, and many of our key suppliers, are located in regions which have been impacted by COVID-19. Our customers and suppliers worldwide have also been affected and may continue to be affected by COVID-19 related restrictions and closures.

COVID-19, along with the resulting government-imposed restrictions on businesses, shelter-in place orders and temporary retail and grocery store closures had a significant impact on our results of operations for the year ended December 31, 2020, and we expect that it will continue to negatively impact our operations due to decreased consumer demand as well as potential production and warehouse limitations which results in an event or condition, before consideration of management's plans, that could impact our ability to meet future obligations. In response to the continuing uncertainty resulting from COVID-19, we have implemented, and as necessary will continue to make, strategic cost reductions, including reductions in employee headcount, vendor spending, and the delay of expenses related to our drug development activities.

In addition, while the extent and duration of the COVID-19 pandemic on the global economy and our business in particular is difficult to assess or predict, the pandemic has resulted in, and may continue to result in, significant disruption of global financial markets, which may reduce our ability to access capital or our customers' ability to pay us for past or future purchases, which could negatively affect our liquidity. A recession or financial market correction resulting from the lack of containment and spread of COVID-19 could impact overall spending, adversely affecting demand for our products, our business, and the value of our common stock.

On April 15, 2020, we applied for a loan from JPMorgan Chase Bank, N.A., as lender, pursuant to the Paycheck Protection Program (the "PPP") of the CARES Act as administered by the U.S. Small Business Administration (the "SBA"). On April 17, 2020, the loan was approved, and we received proceeds in the amount of $2.9 million (the "PPP Loan").

The PPP Loan, which took the form of a promissory note, matures on April 15, 2022 and bears interest at a rate of 0.98% per annum (the "Promissory Note"). We did not provide any collateral or guarantees for the PPP Loan, nor did we pay any facility charge to obtain the PPP Loan. The Promissory Note provides for customary events of default, including, among others, those relating to failure to make payment, bankruptcy, breaches of representations and material adverse effects. We may prepay the principal of the PPP Loan at any time without incurring any prepayment charges.

Under the original rules, all or a portion of the PPP Loan may be forgiven by the SBA and lender upon application by the Company beginning 60 days but not later than 120 days after loan approval and upon documentation of expenditures in accordance with the SBA's requirements.

Under the CARES Act, loan forgiveness is available for the sum of documented payroll costs, covered rent payments, and covered utilities during the covered period of 8 weeks beginning on the date of loan approval. For purposes of the CARES Act, payroll costs exclude compensation of an individual employee in excess of $100,000, prorated annually. Not more than 25% of the forgiven amount may be for non-payroll costs. Forgiveness is reduced if full-time headcount declines, or if salaries and wages for employees with salaries of $100,000 or less annually are reduced by more than 25%. In the event the PPP Loan, or any portion thereof, is forgiven pursuant to the PPP, the amount forgiven is applied to outstanding principal.

The Paycheck Protection Program Flexibility Act of 2020 (the "PPP Flexibility Act"), enacted on June 5, 2020, amended the Paycheck Protection Program, among others, as follows: (i) extended the covered period from 8 weeks to 24 weeks from the date the PPP Loan is originated, during which PPP funds needed to be expended in order to be forgiven. A borrower may submit a loan forgiveness application any time on or before the maturity date of the loan – including before the end of the covered period – if the borrower has used all of the loan proceeds for which the borrower is requesting forgiveness; (ii) at least 60% of PPP funds must be spent on payroll costs, with the remaining 40% available to spend on other eligible expenses; and (iii) payments are deferred until the date on which the amount of forgiveness determined is remitted to the lender. If a borrower fails to seek forgiveness within 10 months after the last day of its covered period, then payments will begin on the date that is 10 months after the last day of the covered period. In addition, the PPP Flexibility Act modified the CARES Act by increasing the maturity date for loans made after the effective date from two years to a minimum maturity of five years from the date on which the borrower

applies for loan forgiveness. Existing PPP loans made before the new legislation retain their original two-year term, but may be renegotiated between a lender and a borrower to match the 5-year term permitted under the PPP Flexibility Act.

As of March 16, 2021, the balance due on the Promissory Note was $2.9 million. We intend to apply for loan forgiveness within the required timeframe. No assurance is provided that we will obtain forgiveness of the PPP Loan in whole or in part.

In October 2020, the Company entered into a finance agreement with First Insurance Funding in order to fund a portion of its insurance policies. The amount financed is $0.7 million and incurs interest at a rate of 3.60%. The Company is required to make monthly payments of $0.1 million through July 2021. The outstanding balance as of December 31, 2020 was $0.7 million.

On December 8, 2020, we entered into a common stock purchase agreement ("SPA") with Tumim Stone Capital, LLC ("Tumim"), pursuant to which Tumim committed to purchase up to $10.0 million in shares of our common stock, from time to time. The SPA provides, among other things, that we may direct, every three trading days, Tumim to purchase a number of shares of our common stock not to exceed an amount determined based upon the trading volume and stock price of our shares. During the year ended December 31, 2020, we sold 450,000 shares of common stock pursuant to the SPA and recognized proceeds of $0.2 million. As of March 16, 2021, we have sold 5,941,816 additional shares of common stock and recognized proceeds of $3.1 million under the SPA during 2021.

During the first quarter of 2019, we issued 2,950,000 Restricted Stock Units ("RSU") to our founder, former President and Chief Executive Officer, Michael Mona Jr. ("Mona Jr."). The vesting of the RSU is treated as a taxable compensation and thus subject to income tax withholdings. No amounts were withheld (either in cash or the equivalent of shares of common stock from the vesting of the RSU's) or included in our payroll tax filing at the time of vesting. During the year ended December 31, 2020, we reported the taxable compensation associated with the RSU release to the taxing authorities and included the amount in Mona Jr's W-2 for 2019. In addition, the Company paid the employer and employee portion of the FICA taxes of $0.2 million, respectively. Although the primary tax liability is the responsibility of Mona Jr., we are secondarily liable and thus have recorded the liability on our consolidated balance sheet as of December 31, 2020. The liability may be relieved once the tax amount is paid by Mona Jr. and the Company has received the required taxing authority documentation from Mona Jr.. The deadline to file and pay personal income taxes for 2019 was on October 15, 2020. We initiated legal action against Mona Jr. in July 2020, in connection with which we requested that Mona Jr. provides to us, among other things, appropriate taxing authority documentation. As of March 16, 2021, Mona Jr. has not provided us with proof that he filed and paid his taxes for 2019. Therefore, we wrote off the previously recorded income tax receivable during the fourth quarter of 2020. Refer to Note 11. Related Parties to our consolidated financial statements included in Part IV in this Annual Report on Form 10-K for additional information.

Our sources of liquidity and cash flows are used to fund ongoing operations and for research and development projects for new products. Over the next two fiscal years, we anticipate that we will use our liquidity and cash flows from our operations to help fund our growth. In addition, as part of our business strategy, we occasionally evaluate potential acquisitions of businesses, products, and/or the development of new products. Accordingly, a portion of our available cash may be used at any time for the acquisition of complementary products, businesses, and/or the research and development of new products. Such potential uses of funds may require substantial capital resources, which may require us to seek additional debt or equity financing. We cannot assure you that we will be able to successfully identify suitable acquisition or investment candidates, complete acquisitions or investments, integrate acquired businesses and/or products into our current operations, expand into new markets, and/or development new products. Furthermore, we cannot provide assurances that additional financing will be available to us in any required time frame and on commercially reasonable terms, if at all.

We are dependent on cash flow from operations to satisfy our working capital requirements. No assurance can be given that cash flow from operations will be sufficient to provide for our liquidity for the next 12 months. However, we believe that our cash and cash equivalents on hand together with our equity commitment with Tumim and cost reduction measures described above, will provide sufficient liquidity to fund our operations for the next 12 months from the issuance of the consolidated financial statements and cover our ongoing operations and obligations. However, we shall continue to evaluate our capital expenditure needs based upon factors including but not limited to our cash from operations, growth rate, the timing and extent of spending to support development efforts, the expansion of our sales and marketing, the timing of new product introductions, and the continuing market acceptance of our products. Should we be unable to generate sufficient revenue in the future to achieve positive cash flow from operations or satisfy our capital requirements, additional working capital will be required, and we may open a revolving line of credit with a bank, or we may have to sell additional equity or debt securities or obtain expanded credit facilities to fund our operating expenses, pay our obligations, diversify our geographical reach, and grow our company. In the event such financing is needed in the future, there can be no assurance that such financing will be available to us, or, if available, that it will be in amounts and on terms acceptable to us. If we cannot raise additional funds when we need or want them, our prospects, financial condition and results of operations could be negatively affected. However, if cash flows from operations become insufficient to continue operations at the current level, and if no additional financing were obtained, then management would restructure the Company in a way to preserve its business while maintaining expenses within operating cash flows.

A summary of our changes in cash flows for the years ended December 31, 2020 and 2019 is provided below:

	Year ended December 31,	
	2020	2019
	(in thousands)	
Net cash flows provided by (used in):		
Operating activities	$ (7,300)	$ (2,227)
Investing activities	(1,057)	(1,147)
Financing activities	3,274	47
Net decrease in cash, cash equivalents and restricted cash	(5,083)	(3,327)
Cash, cash equivalents and restricted cash, beginning of year	9,608	12,935
Cash, cash equivalents and restricted cash, end of year	$ 4,525	$ 9,608

Operating Activities

Net cash used in operating activities includes our net loss adjusted for non-cash expenses such as stock-based compensation, depreciation and amortization, bad debt expense and other non-cash items. Operating assets and liabilities primarily include balances related to funding of inventory purchases and customer accounts receivable. Operating assets and liabilities that arise from the funding of inventory purchases and customer accounts receivable can fluctuate significantly from day to day and period to period depending on the timing of inventory purchases and customer behavior.

Net cash used in operating activities was $7.3 million in 2020 compared to $2.2 million in 2019, an increase of $5.1 million. The primary reason for this increase is our net loss of $22.3 million in 2020 due to lower sales as a result of COVID-19 and increased market competition. Our net loss was partially offset by non-cash items and changes in operating assets and liabilities.

Investing Activities

Net cash used in investing activities was $1.1 million in both 2020 and 2019. During 2020, we invested in additional technology to support our e-commerce activities and tenant improvements to our main facility. During 2019, we purchased additional manufacturing equipment for our planned expansion and tenant improvements to our main facility.

Financing Activities

Net cash provided by financing activities increased by $3.2 million from 2019 to $3.3 million in 2020. Our financing activity for 2020 consisted of proceeds from the PPP Loan of $2.9 million and stock option exercises of $0.2 million. In addition, we sold 450,000 shares of common stock for proceeds of $0.2 million under our new SPA with Tumim. Our financing activities in 2019 consisted of proceeds from stock option exercises of $0.5 million, offset by repayment of our insurance financing of $0.5 million.

Inflation

We have not been affected materially by inflation during the periods presented, and no material effect is expected in the near future.

Known Trends or Uncertainties

We have seen some consolidation in our industry during economic downturns. These consolidations have not had a negative effect on our total sales; however, should consolidations and downsizing in the industry continue to occur, those events could adversely impact our revenues and earnings going forward.

As discussed in this Annual Report on Form 10-K, the world has been affected due to the COVID-19 pandemic. Until the pandemic has passed, there remains uncertainty as to the effect of COVID-19 on our business in both the short and long-term.

Critical Accounting Policies

The preparation of these financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the dates of the financial statements, and the reported amounts of revenues and expenses during the reporting periods. On an ongoing basis management evaluates its critical accounting policies and estimates.

A “critical accounting policy” is one which is both important to the understanding of the financial condition and results of operations of the Company and requires management’s most difficult, subjective, or complex judgments, and often requires management to make estimates about the effect of matters that are inherently uncertain. Management believes the following accounting policies fit this definition:

Goodwill and Intangible Assets – We evaluate the carrying value of goodwill and intangible assets annually during the fourth quarter in accordance with Accounting Standards Codification (“ASC”) Topic 350, Intangibles Goodwill and Other and between annual evaluations if events occur or circumstances change that would more likely than not reduce the fair value of the reporting unit below its carrying amount. Such circumstances could include, but are not limited to (1) a significant adverse change in legal factors or in business climate, (2) unanticipated competition, or (3) an adverse action or assessment by a regulator. All of the goodwill and intangible assets are assigned to our specialty pharmaceutical segment.

Goodwill is evaluated for impairment by first performing a qualitative assessment to determine whether a quantitative goodwill test is necessary. If it is determined, based on qualitative factors, that the fair value of the reporting unit may be more likely than not less than carrying amount, or if significant adverse changes in our future financial performance occur that could materially impact fair value, a quantitative goodwill impairment test would be required. Additionally, we can elect to forgo the qualitative assessment and perform the quantitative test. If the qualitative assessment indicates that the quantitative analysis should be performed, or if management elects to bypass a qualitative assessment, we then evaluate goodwill for impairment by comparing the fair value of the reporting unit to its carrying amount, including goodwill. The quantitative assessment for goodwill requires us to estimate the fair value of our reporting units using either an income or market approach or a combination thereof.

Management makes critical assumptions and estimates in completing impairment assessments of goodwill and other intangible assets. Our cash flow projections look several years into the future and include assumptions on variables such as future sales and operating margin growth rates, economic conditions, probability of success, market competition, inflation and discount rates.

During the fourth quarter of 2020, we performed our annual goodwill impairment test and determined, after performing a qualitative test of the reporting unit, that it is more likely than not that the fair value of the reporting unit exceeds its carrying amount. Accordingly, there was no indication of impairment and the quantitative impairment test was not performed. We did not record any goodwill impairment charges for the years ended December 31, 2020 or 2019.

We classify intangible assets into three categories: (1) intangible assets with definite lives subject to amortization; (2) intangible assets with indefinite lives not subject to amortization; and (3) goodwill. We determine the useful lives of our identifiable intangible assets after considering the specific facts and circumstances related to each intangible asset. Factors we consider when determining useful lives include the contractual term of any agreement related to the asset, the historical performance of the asset, our long-term strategy for using the asset, any laws or regulations which could impact the useful life of the asset and other economic factors, including competition and specific market conditions. Intangible assets that are deemed to have definite lives are amortized, primarily on a straight-line basis, over their useful lives to their estimated residual values, generally five years.

In-process research & development ("IPR&D") has an indefinite life and is not amortized until completion and development of the project, at which time the IPR&D becomes an amortizable asset. Until such time as the projects are either completed or abandoned, we test those assets for impairment at least annually at year end, or more frequently at interim periods, by evaluating qualitative factors which could be indicative of impairment. Qualitative factors being considered include, but are not limited to, macro-economic conditions, progress on drug development activities, and overall financial performance. If impairment indicators

are present as a result of our qualitative assessment, we will test those assets for impairment by comparing the fair value of the assets to their carrying value. Quantitative factors being considered include, but are not limited to, the current project status, forecasted changes in the timing or amounts required to complete the project, forecasted changes in timing or changes in the future cash flows to be generated by the completed products, a probability of success of the ultimate project and changes to other market-based assumptions, such as discount rates. Upon completion or abandonment, the value of the IPR&D assets will be amortized to expense over the anticipated useful life of the developed products, if completed, or charged to expense when abandoned if no alternative future use exists.

Our intangible assets are included in our specialty pharmaceutical segment. No impairments were identified during the years ended December 31, 2020 and 2019.

Revenue Recognition – The majority of our revenue contracts represent a single performance obligation related to the fulfillment of customer orders for the purchase of our products, which is primarily related to our *Plus CBD*™ line of products. Net sales reflect the transaction prices for these contracts based on our selling list price, which is then reduced by estimated costs for trade promotional programs, consumer incentives, and allowances and discounts used to incentivize sales growth and build brand awareness. We recognize revenue at the point in time that control of the ordered product is transferred to the customer, which is typically upon shipment to the customer or other customer-designated delivery point. We accrue for estimated sales returns by customers based on historical sales return results. The computation of the sales return and discount allowances require that management makes certain estimates and assumptions that effect the timing and amounts of revenue and liabilities recorded. Shipping and handling fees charged to customers are included in product sales and totaled $0.2 million and $0.3 million for the years ended December 31, 2020 and 2019, respectively. Taxes collected from customers that are remitted to governmental agencies are accounted for on a net basis and not included as revenue.

Stock-Based Compensation – Certain employees, officers, directors, and consultants participate in various long-term incentive plans that provide for granting stock options, restricted stock awards, restricted stock units, stock bonus awards and performance-based awards. Stock options generally vest in equal increments over a two- to four-year period and expire on the tenth anniversary following the date of grant. Performance-based stock options vest once the applicable performance condition is satisfied.

The risk-free interest rates are based on the implied yield available on U.S. Treasury constant maturities with remaining terms equivalent to the respective expected terms of the options. The Company estimates the expected term for stock options awarded to employees, non-employees, officers and directors using the simplified method in accordance with ASC Topic 718, *Stock* Compensation, because the Company does not have sufficient relevant historical information to develop reasonable expectations about future exercise patterns. Through September 30, 2019, the Company determined expected volatility based on the Company's peer group, consisting of five companies in the industry in which the Company does business because the Company did not have sufficient historical volatility data. Starting on October 1, 2019, the Company had sufficient historical volatility data, and used its own volatility. In the future, as the Company gains historical data for the actual term over which stock options are held, the expected term may change, which could substantially change the grant-date fair value of future stock option awards, and, consequently, compensation of future grants.

We recognize stock-based compensation for equity awards granted to employees, officers and directors as compensation and benefits expense in the consolidated statements of operations. The fair value of stock options is estimated using a Black-Scholes valuation model on the date of grant. The fair value of restricted stock awards is equal to the closing price of our stock on the date of grant. Stock-based compensation is recognized over the requisite service period of the individual awards, which generally equals the vesting period. For performance-based stock options, compensation is recognized once the applicable performance condition is satisfied.

We recognize stock-based compensation for equity awards granted to consultants as selling, general and administrative expense in the consolidated statements of operations. The fair value of stock options is estimated using a Black-Scholes valuation model on the date of grant and unvested awards are revalued at each reporting period. The fair value of restricted stock awards is equal to our stock closing price on the date of grant multiplied by the number of shares awarded. Stock-based compensation is recognized over the requisite service period of the individual awards, which generally equals the vesting period.

Recent Accounting Pronouncements

Refer to Note 2 of our consolidated financial statements for a discussion of recent accounting standards and pronouncements.

Off-Balance Sheet Arrangements

None.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not applicable to a "smaller reporting company" as defined in Item 10(f)(1) of Regulation S-K.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial statements required by this item are set forth at the pages indicated in Part IV, Item 15(a)(1) of this Annual Report.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

Our disclosure controls and procedures (as defined in Rules 13a-15(e) or 15d-15(e) under the Securities Exchange Act of 1934, as amended) are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission and to ensure that information required to be disclosed is accumulated and communicated to management, including our principal executive and financial officers, to allow timely decisions regarding disclosure. Our Chief Executive Officer (CEO) and our Chief Financial Officer (CFO), with assistance from other members of management, have reviewed the effectiveness of our disclosure controls and procedures as of December 31, 2020 and, based on their evaluation, have concluded that the disclosure controls and procedures were effective as of such date.

MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP and includes those policies and procedures that: (1) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect our transactions and the dispositions of our assets; (2) provide reasonable assurance that our transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles and that our receipts and expenditures are being made only in accordance with appropriate authorizations; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

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

Under the supervision of and with the participation of our management, we assessed the effectiveness of our internal control over financial reporting as of December 31, 2020, using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework (2013). A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

We previously identified and disclosed in our Annual Report on Form 10-K for the year ended December 31, 2019, a material weakness in internal control related to insufficient time to test the effectiveness of the implemented remediation action for the material weakness for the year ended December 31, 2018. The original material weakness was related to management's lack of maintaining appropriate staffing in its accounting department with the appropriate level of technical expertise and experience, resulting in insufficient oversight of the financial reporting function.

During the year ended December 31, 2020, management implemented our previously disclosed remediation plan that included:

- Engaging external consultants, as necessary, to assist in the continued development of our risk assessment process and identification of internal controls responsive to such risks;
- Performing educational sessions throughout the organization regarding the requirements for appropriate documentation and evidence to demonstrate the operating effectiveness of our internal controls; and
- Continued hiring of additional finance and accounting individuals.

During the fourth quarter of 2020, we completed our testing of the operating effectiveness of the implemented controls and found them to be effective. As a result, we have concluded the material weakness has been remediated as of December 31, 2020.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

Except for the changes in connection with our implementation of the remediation plan discussed above, there has been no other changes in our internal control over financial reporting during the quarter ended December 31, 2020 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ATTESTATION REPORT OF THE REGISTERED PUBLIC ACCOUNTING FIRM

This Annual Report on Form 10-K does not include an attestation report of our independent registered public accounting firm on the Company's internal controls as the Company is a non-accelerated filer and is thus not required to provide such a report.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE

Information required by this item will be contained in our definitive proxy statement to be filed with the Securities and Exchange Commission in connection with our 2021 Annual Meeting of Stockholders, or the Definitive Proxy Statement, which is expected to be filed not later than 120 days after the end of our fiscal year ended December 31, 2020, under the headings "Election of Directors," "Corporate Governance," "Our Executive Officers," and "Section 16(a) Beneficial Ownership Reporting Compliance," and is incorporated herein by reference.

There have been no material changes to the procedures by which security holders may recommend nominees to our board of directors since we last described such procedures.

The Company has a Code of Ethics which is posted on our website at: www.cvsciences.com.

ITEM 11. EXECUTIVE COMPENSATION

Information required by this item will be contained in our Definitive Proxy Statement under the heading "Executive Compensation and Other Information," and is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required by this item will be contained in our Definitive Proxy Statement under the heading "Security Ownership of Certain Beneficial Owners and Management," and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by this item will be contained in our Definitive Proxy Statement under the headings "Certain Relationships and Related Person Transactions," "Board Independence" and "Committees of the Board of Directors" and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information required by this item will be contained in our Definitive Proxy Statement under the heading "Independent Registered Public Accountants' Fee" and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

1. Financial Statements

   The following consolidated financial statements of the Company are submitted herewith:

   Report of Independent Registered Public Accounting Firm

   Consolidated Balance Sheets as of December 31, 2020 and 2019

   Consolidated Statements of Operations for the years ended December 31, 2020 and 2019

   Consolidated Statements of Stockholders' Equity for the years ended December 31, 2020 and 2019

   Consolidated Statements of Cash Flows for the years ended December 31, 2020 and 2019

   Notes to Consolidated Financial Statements

2. Financial Statement Schedules

   Schedules are not submitted because they are not applicable or not required under Regulation S-X or because the required information is included in the financial statements or notes thereto.

3. Exhibits required to be filed by Item 601 of Regulations S-K

   The information called for by this Item is incorporated by reference from the Index to Exhibits included in this Annual Report on Form 10-K.

ITEM 16. FORM 10-K SUMMARY

None.

EXHIBIT INDEX

Exhibit No.	Description of Exhibit
2.1 (1)	Agreement and Plan of Merger, dated as of July 25, 2013, by and between CannaVest Corp., a Texas corporation, and CannaVest Corp., a Delaware corporation.
2.2 (2)	Agreement and Plan of Reorganization, dated December 30, 2015, by and among CannaVEST Corp., CANNAVEST Merger Sub, Inc., CANNAVEST Acquisition LLC, CanX, Inc., and The Starwood Trust, as the Shareholder Representative
2.3 (3)	Amendment No. 1 to the Agreement and Plan of Reorganization, dated as of March 16, 2017, by and among the Company, CANNAVEST Acquisition LLC, and the Starwood Trust, as the Shareholder Representative
3.1 (1)	Certificate of Incorporation of CannaVest Corp., as filed on July 26, 2013.
3.2 (1)	Bylaws of CannaVest Corp., dated as of June 26, 2013.
3.3 (3)	Bylaws of the Company, as amended.
3.4 (4)	Certificate of Amendment to Certificate of Incorporation of CannaVest Corp., as filed on January 4, 2016
3.5 (5)	Certificate of Incorporation of the Company, as amended.
3.6 (6)	Certificate of Amendment to the Bylaws of the Company, as amended.
3.7 (7)	Certificate of Amendment to the Bylaws of the Company, as amended.
4.1 (8)	CannaVest Corp. Specimen Stock Certificate
10.1 † (9)	Form of Stock Option Award Grant Notice and Form of Stock Award Agreement.
10.3 (10)	Promissory Note, dated January 29, 2016, issued by the Company to Wiltshire, LLC.
10.4 (10)	Common Stock Purchase Warrant, dated January 29, 2016, issued by the Company to Wiltshire, LLC.
10.5 (11)	Form of Common Stock Purchase Warrant, issued by the Company to Bart Mackay, dated July 6, 2016.
10.6 † (12)	Amended and Restated 2013 Equity Incentive Plan, as amended.
10.7 † (13)	Employment Agreement, dated July 6, 2016, by and between the Company and Michael J. Mona, Jr.
10.8 † (13)	Employment Agreement, dated July 6, 2016, by and between the Company and Joseph Dowling
10.9 † (13)	Employment Agreement, dated July 6, 2016, by and between the Company and Michael Mona, III.
10.10 † (13)	Non-Qualified Stock Option Agreement, by and between the Company and Michael J. Mona, Jr., dated July 6, 2016.
10.11 † (13)	Non-Qualified Stock Option Agreement, by and between the Company and Joseph Dowling, dated July 6, 2016.
10.12 † (13)	Non-Qualified Stock Option Agreement, by and between the Company and Michael Mona, III, dated July 6, 2016.
10.13 (14)	Form of Securities Purchase Agreement, dated March 1, 2017, by and between the Company and Iliad Research and Trading, L.P.
10.14 (14)	Form of Secured Convertible Promissory Note, issued by the Company on March 1, 2017, to Iliad Research and Trading, L.P.
10.15 (14)	Security Agreement, dated March 1, 2017, by and between the Company and Iliad Research and Trading, L.P.
10.17 † (13)	Amendment to Employment Agreement, dated March 16, 2017, by and between the Company and Michael Mona, Jr.
10.18 † (13)	Amendment to Employment Agreement, dated March 16, 2017, by and between the Company and Michael Mona, III.
10.19 † (13)	Amendment to Stock Option Agreement, dated March 16, 2017, to that certain Non-Qualified Stock Option Agreement, dated July 6, 2016, by and between the Company and Michael Mona, Jr.
10.20 † (13)	Amendment to Stock Option Agreement, dated March 16, 2017, to that certain Non-Qualified Stock Option Agreement, dated July 6, 2016, by and between the Company and Joseph Dowling.
10.21 † (13)	Amendment to Stock Option Agreement, dated March 16, 2017, to that certain Non-Qualified Stock Option Agreement, dated July 6, 2016, by and between the Company and Michael Mona, III.
10.22 † (13)	Non-Qualified Stock Option Agreement, dated March 15, 2017, by and between the Company and Michael Mona, Jr.
10.23 † (15)	Non-Qualified Stock Option Agreement, dated April 7, 2017, by and between the Company and Joseph Dowling.

Exhibit No.	Description of Exhibit
10.24 † (15)	Non-Qualified Stock Option Agreement, dated April 7, 2017, by and between the Company and Michael Mona, III.
10.25 (16)	Amendment No. 4 to the Secured Convertible Promissory Note, dated August 2, 2017, by and between the Company and Iliad Research and Trading, L.P., dated May 25, 2016.
10.26 † (17)	Employment Agreement, dated June 8, 2018, by and between the Company and Mr. Mona, Jr.
10.27 † (17)	Restricted Stock Unit Award Agreement, dated June 8, 2018, by and between the Company and Mr. Michael Mona, Jr.
10.28 † (17)	Employment Agreement, dated June 14, 2018, by and between the Company and Mr. Joseph Dowling.
10.29 † (17)	Employment Agreement, dated June 14, 2018, by and between the Company and Mr. Michael Mona, III.
10.30 (17)	Consent to Judgment.
10.31 (17)	Consent to Judgment.
10.32 † (18)	Employment Agreement, dated December 26, 2018, by and between the Company and Mr. Joerg Grasser.
10.33 (19)	Common Stock Purchase Agreement, dated December 4, 2020, by and between the Company and Tumim Stone Capital, LLC.
10.34 (20)	Promissory Note, dated April 15, 2020, by and between the Company and JP Morgan Chase Bank, N.A.
23.1*	Consent of Deloitte LLP
31.1*	Certification of the Principal Executive Officer pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of the Principal Financial Officer pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of the Principal Executive Officer pursuant to 18 U.S.C.Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of the Principal Financial Officer pursuant to 18 U.S.C.Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101 INS*	Inline XBRL Instance Document**
101 SCH*	Inline XBRL Taxonomy Extension Schema Document**
101 CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document**
101 LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document**
101 PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document**
101 DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document**
104**	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101 attachments)

* Filed herewith.

† Indicates a management contract or compensatory plan or arrangement.

** The XBRL related information in Exhibit 101 shall not be deemed filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to liability of that section and shall not be incorporated by reference into any filing or other document pursuant to the Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such filing or document.

(1) Incorporated by reference from an exhibit to our Quarterly Report on Form 10-Q filed on August 13, 2013.
(2) Incorporated by reference from an exhibit to our Current Report on Form 8-K filed on January 4, 2016.
(3) Incorporated by reference from an exhibit to our Quarterly Report on Form 10-Q filed on May 9, 2017.
(4) Incorporated by reference from an exhibit to our Annual Report on Form 10-K filed on April 14, 2016.
(5) Incorporated by reference from an exhibit to our Quarterly Report on Form 10-Q filed on May 16, 2016.
(6) Incorporated by reference from an exhibit to our Current Report on Form 8-K filed on May 26, 2016.
(7) Incorporated by reference from an exhibit to our Current Report on Form 8-K filed on March 22, 2017.
(8) Incorporated by reference from an exhibit to our Current Report on Form 8-K filed on July 31, 2013.
(9) Incorporated by reference from an exhibit to our Form S-8 filed on October 6, 2014.
(10) Incorporated by reference from an exhibit to our Current Report on Form 8-K filed on February 3, 2016.
(11) Incorporated by reference from an exhibit to our Current Report on Form 8-K filed on July 11, 2016.
(12) Incorporated by reference from an exhibit to our Current Report on Form 8-K filed on June 17, 2019.
(13) Incorporated by reference from an exhibit to our Quarterly Report on Form 10-Q filed on November 1, 2016.

(14) Incorporated by reference from an exhibit to our Current Report on Form 8-K filed on March 7, 2017.
(15) Incorporated by reference from an exhibit to our Annual Report on Form 10-K filed on March 30, 2018.
(16) Incorporated by reference from an exhibit to our Quarterly Report on Form 10-Q filed on August 11, 2017.
(17) Incorporated by reference from an exhibit to our Quarterly Report on Form 10-Q filed on August 1, 2018.
(18) Incorporated by reference from an exhibit to our Annual Report on Form 10-K filed on March 12, 2019.
(19) Incorporated by reference from an exhibit to our Current Report on Form 8-K filed on December 8, 2020.
(20) Incorporated by reference from an exhibit to our Current Report on Form 8-K filed on April 21, 2020.

SIGNATURES

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

CV Sciences, Inc.
(Registrant)

By /s/ Joseph D. Dowling
Joseph D. Dowling
Chief Executive Officer
Dated March 19, 2021

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

Signature	Title	Date
/s/ Joseph D. Dowling Joseph D. Dowling	Chief Executive Officer and Director (Principal Executive Officer)	March 19, 2021
/s/ Joerg Grasser Joerg Grasser	Chief Financial Officer (Principal Financial and Accounting Officer)	March 19, 2021
/s/ Terri Funk Graham Terri Funk Graham	Director	March 19, 2021
/s/ Dr. Joseph C. Maroon Dr. Joseph C. Maroon	Director	March 19, 2021
/s/ Dr. Paul Blake Dr. Paul Blake	Director	March 19, 2021
/s/ Beth Altman Beth Altman	Director	March 19, 2021

CV Sciences, Inc.
Index to Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of CV Sciences, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of CV Sciences, Inc. and subsidiaries (the "Company") as of December 31, 2020 and 2019, the related consolidated statements of operations, stockholders' equity, and cash flows, for each of the two years ended December 31, 2020, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2020, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Impairment evaluation of indefinite-lived intangible assets – Note 2

Critical Audit Matter Description

As of December 31, 2020, the Company's indefinite-lived intangible asset balance, consisting of in-process research and development (IPR&D), was $3.7 million. IPR&D is evaluated for impairment annually during the fourth quarter in accordance with ASC Topic 350, Intangibles Goodwill and Other, and between annual evaluations if events occur or circumstances change that would more likely than not reduce the fair value of the reporting unit below its carrying amount.

Management evaluates qualitative factors to determine whether it is more likely than not that the fair value of the IPR&D asset is less than its carrying amount. During 2020, management performed a quantitative impairment test for the IPR&D asset and compared the fair value of the IPR&D asset with its carrying amount. The qualitative and quantitative factors management considers include, but are not limited to, the current project status, forecasted changes in the timing or amounts required to complete the project, forecasted changes in timing or changes in the future cash flows to be generated by the completed products, a probability of success of the ultimate project and changes to other market-based assumptions, such as discount rates.

We identified the impairment evaluation of the IPR&D asset as a critical audit matter because of the significant judgments made by management to estimate the fair value of the IPR&D asset. This required a high degree of auditor judgment and an increased

extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of management's estimates and assumptions, including projected revenue and expenses.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the impairment evaluation of IPR&D included in the following, among others:

- With the assistance of our fair value specialists, we evaluated the reasonableness of the Company's impairment evaluation by:
  - Testing the appropriateness of the Company's valuation methodology.
  - Testing the mathematical accuracy of the fair value model.
- Evaluated the key assumptions, including projected revenue and expenses, used in the discounted cash flow analysis and reviewed the projections relative to internal and external documents relating to the progress of the IPR&D asset and the expected commercialization timeline.
- Compared historical assumptions to current market information.

/s/ DELOITTE & TOUCHE LLP

San Diego, California
March 19, 2021

We have served as the Company's auditor since 2019.

CV SCIENCES, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except per share data)

	As of December 31,	
	2020	**2019**
Assets		
Current assets:		
Cash and cash equivalents	$ 4,024	$ 9,107
Restricted cash	501	501
Accounts receivable, net	1,126	2,177
Inventory	8,840	9,971
Prepaid expenses and other	2,372	10,611
Total current assets	16,863	32,367
Property & equipment, net	2,877	3,615
Operating lease assets	3,057	8,709
Intangibles, net	3,730	3,766
Goodwill	2,788	2,788
Other assets	1,310	1,442
Total assets	$ 30,625	$ 52,687
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 1,677	$ 1,617
Accrued expenses	9,805	10,856
Current portion of operating lease liability	680	723
Current portion of long-term debt	2,174	—
Total current liabilities	14,336	13,196
Operating lease liability	3,467	9,517
Debt	1,453	—
Deferred tax liability	157	421
Other liabilities	—	406
Total liabilities	19,413	23,540
Commitments and contingencies (Note 12)		
Stockholders' equity		
Preferred stock, par value $0.0001; 10,000 shares authorized; no shares issued and outstanding	—	—
Common stock, par value $0.0001; 190,000 shares authorized; 100,664 and 99,416 shares issued and outstanding as of December 31, 2020 and 2019, respectively	10	10
Additional paid-in capital	75,123	70,774
Accumulated deficit	(63,921)	(41,637)
Total stockholders' equity	11,212	29,147
Total liabilities and stockholders' equity	$ 30,625	$ 52,687

The accompanying notes are an integral part of these statements.

CV SCIENCES, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	For the Years Ended December 31,	
	2020	**2019**
Product sales, net	$ 24,429	$ 53,696
Cost of goods sold	13,420	18,608
Gross profit	11,009	35,088
Operating expenses:		
Research and development	2,943	5,877
Selling, general and administrative	30,658	46,451
	33,601	52,328
Operating loss	(22,592)	(17,240)
Interest (income) expense, net	9	(15)
Loss before income taxes	(22,601)	(17,225)
Income tax benefit	(317)	(615)
Net loss	$ (22,284)	$ (16,610)
Weighted average common shares outstanding, basic and diluted	99,913	97,861
Net loss per common share, basic and diluted	$ (0.22)	$ (0.17)

The accompanying notes are an integral part of these statements.

CV SCIENCES, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY
(in thousands)

	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Total
	Shares	Amount			
Balance - December 31, 2018	94,940	$ 9	$ 55,134	$ (25,027)	$ 30,116
Issuance of common stock from exercise of stock options	4,476	1	520	—	521
Stock-based compensation	—	—	5,589	—	5,589
Stock-based compensation associated with founders employment settlements (Note 11)	—	—	9,531	—	9,531
Net loss				(16,610)	(16,610)
Balance - December 31, 2019	99,416	10	70,774	(41,637)	29,147
Issuance of common stock from exercise of stock options	613	—	175	—	175
Issuance of common stock under equity commitment	635	—	293	—	293
Stock-based compensation	—	—	3,881	—	3,881
Net loss	—	—	—	(22,284)	(22,284)
Balance - December 31, 2020	100,664	$ 10	$ 75,123	$ (63,921)	$ 11,212

The accompanying notes are an integral part of these statements.

CV SCIENCES, INC.
CONSOLIDATED STATEMENTS OF CASH FLOW
(in thousands)

	For the years ended December 31,	
	2020	**2019**
OPERATING ACTIVITIES		
Net loss	$ (22,284)	$ (16,610)
Adjustments to reconcile net loss to net cash flows used in operating activities:		
Depreciation and amortization	872	716
Common stock issued for commitment fee	100	—
Stock-based compensation	3,881	5,589
Stock-based compensation associated with founders employment settlements (Note 11)	—	9,531
Derecognition of tax receivable for founder RSU settlement (Note 11)	6,229	—
Loss on disposal of fixed assets	191	—
Bad debt expense	133	236
Non-cash lease expense	598	817
Deferred taxes	(264)	(644)
Other	134	—
Change in operating assets and liabilities:		
Accounts receivable	918	927
Inventory	1,703	(1,421)
Prepaid expenses and other current assets	2,959	(3,016)
Accounts payable and accrued expenses	(2,470)	1,648
Net cash used in operating activities	(7,300)	(2,227)
INVESTING ACTIVITIES		
Purchase of equipment	(1,057)	(1,147)
Net cash used in investing activities	(1,057)	(1,147)
FINANCING ACTIVITIES		
Proceeds from debt	2,906	—
Repayment of unsecured debt	—	(474)
Proceeds from issuance of common stock	193	—
Proceeds from exercise of stock options	175	521
Net cash provided by financing activities	3,274	47
Net decrease in cash, cash equivalents and restricted cash	(5,083)	(3,327)
Cash, cash equivalents and restricted cash, beginning of year	9,608	12,935
Cash, cash equivalents and restricted cash, end of year	$ 4,525	$ 9,608

The accompanying notes are an integral part of these statements.

	For the years ended December 31,	
	2020	2019
Supplemental cash flow disclosures:		
Interest paid	$ —	$ 9
Income taxes paid	20	99
Supplemental disclosure of non-cash transactions:		
Purchase of property and equipment in accounts payable and accrued expenses	$ 15	$ 89
Derecognition of operating ROU asset related to operating lease termination	(4,704)	—
Sale of property and equipment in exchange for note receivable (recorded in prepaid expense and other) and inventory	675	—
Purchase of insurance through issuance of note payable (Note 7)	721	—
Operating ROU lease assets obtained in exchange for operating lease liabilities	—	5,405
Recognition of founder RSU tax withholding obligation and receivable (Note 11)	—	6,409
Cashless exercise of options	108	39

The accompanying notes are an integral part of these statements.

1. ORGANIZATION AND BUSINESS

CV Sciences, Inc. (the "Company") was incorporated under the name Foreclosure Solutions, Inc. in the State of Texas on December 9, 2010. On July 25, 2013, CannaVest Corp., a Texas corporation ("CannaVest Texas"), merged with the Company, a wholly-owned Delaware subsidiary of CannaVest Texas, to effectuate a change in the Company's state of incorporation from Texas to Delaware. On January 4, 2016, the Company filed a Certificate of Amendment of Certificate of Incorporation reflecting its corporate name change to "CV Sciences, Inc.", effective on January 5, 2016. In addition, on January 4, 2016, the Company amended its Bylaws to reflect its corporate name change to "CV Sciences, Inc."

The Company has two operating segments; consumer products and specialty pharmaceutical. The consumer products segment develops, manufactures, markets and sells plant-based dietary supplements and hemp-based cannabidiol ("CBD"). The Company sells its products under tradenames, such as *PlusCBD*™, *HappyLane*™, *ProCBD*™, *CV*™*Acute* and *CV*™*Defenese*. The Company's products are sold in a variety of market sectors including nutraceutical, beauty care and specialty foods. The specialty pharmaceutical segment is developing drug candidates which use CBD as a primary active ingredient.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation - The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP"). The consolidated financial statements include the accounts of CV Sciences, Inc., the accounts of its wholly-owned subsidiaries of Plus CBD, LLC and CANNAVEST Acquisition, LLC, and the accounts of a 70% interest in CannaVest Europe, GmbH. On January 20, 2017, the Company filed for dissolution of CannaVest Europe, GmbH, with the District Court, Dusseldorf Germany, effective December 31, 2017. CANNAVEST Acquisition, LLC, a Delaware limited liability company formed in connection with the CanX Acquisition, was dissolved in 2018, with administrative approval in Florida carrying over into January 2019 before final resolution. On August 7, 2019, the Company filed for dissolution of Plus CBD, LLC (formerly, "Global Hemp Source, LLC") with the Secretary of State of California. As a result, the Company no longer owns interests in any subsidiaries as of December 31, 2020. All intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates – The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management to make judgments, estimates and assumptions that affect the reported amounts in the consolidated financial statements and accompanying notes. Actual results may differ from these estimates. Significant estimates include the valuation of intangible assets, inputs for valuing equity awards, and assumptions related to revenue recognition.

Concentrations of Credit Risk – As of December 31, 2020, the Federal Deposit Insurance Corporation ("FDIC") provided insurance coverage of up to $0.3 million per depositor per bank. The Company has not experienced any losses in such accounts and does not believe that the Company is exposed to significant risks from excess deposits. The Company's cash balance in excess of FDIC limits totaled $3.3 million as of December 31, 2020.

The majority of the Company's raw materials purchases for the year ended December 31, 2019 were sourced from one supplier in Europe. During the year ended December 31, 2020 the Company added one additional domestic supplier. There was no concentration of accounts receivable or revenue as of and for the years ended December 31, 2020 and 2019.

Fair Value Measurements – Fair value is defined as the price that would be received from the sale of an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The carrying values of accounts receivable, other current assets, accounts payable, and certain accrued expenses as of December 31, 2020 and 2019, approximate their fair value due to the short-term nature of these items. The Company's notes payable balance also approximates fair value as of December 31, 2020, as the interest rate on the notes payable approximates the rates available to the Company as of this date. The accounting guidance establishes a three-level hierarchy for disclosure that is based on the extent and level of judgment used to estimate the fair value of assets and liabilities.

- Level 1 - uses unadjusted quoted prices that are available in active markets for identical assets or liabilities. The Company's Level 1 assets are comprised of $3.4 million and $4.0 million in money market funds which are classified as cash equivalents as of December 31, 2020 and 2019, respectively. In addition, the Company's restricted cash of $0.5 million as of December 31, 2020 and 2019 is comprised of certificates of deposits. The carrying value of the cash

equivalents and restricted cash equals the fair value as of December 31, 2020 and 2019. The Company does not have any liabilities that are valued using inputs identified under a Level 1 hierarchy as of December 31, 2020 and 2019.

- Level 2 - uses inputs other than quoted prices included in Level 1 that are either directly or indirectly observable through correlation with market data. These include quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; and inputs to valuation models or other pricing methodologies that do not require significant judgment because the inputs used in the model, such as interest rates and volatility, can be corroborated by readily observable market data. The Company did not have any assets or liabilities that are valued using inputs identified under a Level 2 hierarchy as of December 31, 2020 and 2019.

- Level 3 - uses one or more significant inputs that are unobservable and supported by little or no market activity, and that reflect the use of significant management judgment. Level 3 assets and liabilities include those whose fair value measurements are determined using pricing models, discounted cash flow methodologies or similar valuation techniques, and significant management judgment or estimation. The Company did not have any assets or liabilities that are valued using inputs identified under a Level 3 hierarchy as of December 31, 2020 and 2019.

Liquidity Considerations – COVID-19 has spread (and continues to spread) worldwide, resulting in shutdowns of manufacturing and commerce. COVID-19 has resulted in government authorities implementing numerous measures to try to contain it, such as travel bans and restrictions, quarantines, shelter-in-place orders, and shutdowns. These measures have impacted, and may further impact, the Company's workforce and operations, the operations of our customers and our partners, and those of our respective vendors and suppliers. The Company's critical business operations, including its headquarters, and many of its key suppliers, are located in regions which have been impacted by COVID-19. The Company's customers and suppliers worldwide have also been affected and may continue to be affected by COVID-19 related restrictions and closures.

COVID-19, along with the resulting government-imposed restrictions on businesses, shelter-in place orders, and temporary retail and grocery store closures had a significant impact on the Company's results of operations for the year ended December 31, 2020, and the Company's management expects that it will continue to negatively impact its operations due to decreased consumer demand as well as potential production and warehouse limitations which results in an event or condition, before consideration of management's plans, that could impact its ability to meet future obligations.

In addition, while the extent and duration of the COVID-19 pandemic on the global economy and the Company's business in particular is difficult to assess or predict, the pandemic has resulted in, and may continue to result in, significant disruption of global financial markets, which may reduce the Company's ability to access capital or its customers' ability to pay for past or future purchases, which could negatively affect the Company's liquidity. A recession or financial market correction resulting from the lack of containment and spread of COVID-19 could impact overall spending, adversely affecting demand for the Company's products, its business, and the value of its common stock.

On April 17, 2020, the Company received $2.9 million pursuant to the Paycheck Protection Program ("PPP") under the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") as administered by the U.S. Small Business Administration (the "SBA"), as further discussed in Note 7.

On December 8, 2020, the Company entered into a common stock purchase agreement with Tumim Stone Capital, LLC to issue and sell up to $10.0 million in shares of the Company's common stock, from time to time, as further discussed in Note 8.

In response to the continuing uncertainty resulting from COVID-19, management has implemented, and as necessary will continue to make strategic cost reductions, including reductions in employee headcount, vendor spending, and the delay of expenses related to its drug development activities. Management believes that its cash and cash equivalents on hand together with the equity commitment with Tumim and these cost reduction measures, as needed, will provide sufficient liquidity to fund its operations for the next 12 months from the issuance of the consolidated financial statements.

Cash and Cash Equivalents – For purposes of the consolidated statements of cash flows, the Company considers amounts held by financial institutions and short-term investments with an original maturity of three months or less when purchased to be cash and cash equivalents. As of December 31, 2020, the Company had cash of $1.6 million and cash equivalents of $2.4 million. As of December 31, 2019, the Company had cash of $5.1 million and cash equivalents of $4.0 million.

Restricted Cash – The Company's restricted cash as of December 31, 2020 and 2019 consists of certificates of deposits related to the Company's corporate credit card program.

The following table provides a reconciliation of cash, cash equivalents, and restricted cash reported within the consolidated balance sheets to the total of the same amounts shown in the statement of cash flows as of December 31, 2020 and 2019 (in thousands):

	As of December 31,	
	2020	**2019**
Cash and cash equivalents	$ 4,024	$ 9,107
Restricted cash	501	501
Total cash and restricted cash shown in the statements of cash flows	$ 4,525	$ 9,608

Accounts Receivable – Generally, the Company requires payment prior to shipment. However, in certain circumstances, the Company extends credit to companies located throughout the U.S. Accounts receivable consists of trade accounts arising in the normal course of business. Accounts for which no payments have been received after 30 days are considered delinquent and customary collection efforts are initiated. Accounts receivable are carried at original invoice amount less a reserve made for doubtful receivables based on a review of all outstanding amounts on a quarterly basis.

Management has determined the allowance for doubtful accounts by regularly evaluating individual customer receivables and considering a customer's financial condition and credit history, and current economic conditions. As of each December 31, 2020 and 2019, the Company maintained an allowance for doubtful accounts related to accounts receivable in the amount of $0.6 million and $0.4 million, respectively.

Inventory – Inventory is stated at lower of cost or net realizable value, with cost being determined on an average cost basis. Cost includes costs directly related to manufacturing and distribution of the products. Primary costs include raw materials, packaging, manufacturing overhead, shipping and depreciation of manufacturing equipment and production facilities. Manufacturing overhead includes payroll, employee benefits, utilities, maintenance and property taxes. Total shipping and handling costs were $1.7 million and $2.7 million for the years ended December 31, 2020 and 2019, respectively, and are recorded in cost of goods sold.

The Company performs an assessment of inventory obsolescence to measure inventory at the lower of cost or net realizable value. Factors considered in the determination of obsolescence include slow-moving or non-marketable items.

The Company's inventory production process includes the cultivation of botanical raw material. Because of the duration of the cultivation process, a portion of our inventory will not be sold within one year. Starting April 1, 2019, consistent with the practice in other industries that cultivate botanical raw materials, all inventory is classified as a current asset.

Property & Equipment – Equipment is stated at cost less accumulated depreciation. Cost represents the purchase price of the asset and other costs incurred to bring the asset into its existing use. Depreciation is provided on a straight-line basis over the assets estimated useful lives. Tenant improvements are amortized on a straight-line basis over the shorter of the useful life or the remaining life of the related lease. Maintenance or repairs are charged to expense as incurred. Upon sale or disposition, the historically-recorded asset cost and accumulated depreciation are removed from the respective accounts and any related gain or loss is recognized.

Impairment of Long-Lived Assets – In accordance with Accounting Standards Codification ("ASC") Topic 360, *Accounting for the Impairment or Disposal of Long-Lived Assets*, the Company reviews property and equipment for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of property and equipment is measured by comparing its carrying value to the undiscounted projected future cash flows that the assets are expected to generate. If the carrying amount of an asset is not recoverable, the Company recognizes an impairment loss based on the excess of the carrying amount of the long-lived asset over its respective fair value, which is generally determined as the present value of estimated future cash flows or at the appraised value. The impairment analysis is based on significant assumptions of future results made by management, including revenue and cash flow projections. Circumstances that may lead to impairment of property and equipment include a significant decrease in the market price of a long-lived asset, a significant adverse change in the extent or manner in which a long-lived asset is being used or in its physical condition and a significant adverse change in legal factors or in the business climate that could affect the value of a long-lived asset including an adverse action or assessment by a regulator. As of December 31, 2020 and 2019, the Company determined that long-lived assets were not impaired.

Goodwill and Intangible Assets – The Company evaluates the carrying value of goodwill and intangible assets annually during the fourth quarter in accordance with ASC Topic 350, *Intangibles Goodwill and Other* and between annual evaluations if events

occur or circumstances change that would more likely than not reduce the fair value of the reporting unit below its carrying amount. Such circumstances could include, but are not limited to (1) a significant adverse change in legal factors or in business climate, (2) unanticipated competition, or (3) an adverse action or assessment by a regulator. All of the Company's goodwill and intangible assets are assigned to the Company's specialty pharmaceutical segment.

Goodwill is evaluated for impairment by first performing a qualitative assessment to determine whether a quantitative goodwill test is necessary. If it is determined, based on qualitative factors, that the fair value of the reporting unit may be more likely than not less than carrying amount, or if significant adverse changes in the Company's future financial performance occur that could materially impact fair value, a quantitative goodwill impairment test would be required. Additionally, management can elect to forgo the qualitative assessment and perform the quantitative test. If the qualitative assessment indicates that the quantitative analysis should be performed, or if management elects to bypass a qualitative assessment, the Company then evaluates goodwill for impairment by comparing the fair value of the reporting unit to its carrying amount, including goodwill. The quantitative assessment for goodwill requires management to estimate the fair value of the Company's reporting units using either an income or market approach or a combination thereof.

Management makes critical assumptions and estimates in completing impairment assessments of goodwill and other intangible assets. The Company's cash flow projections look several years into the future and include assumptions on variables such as future sales and operating margin growth rates, economic conditions, probability of success, market competition, inflation and discount rates.

During the fourth quarter of 2020, the Company performed its annual goodwill impairment test and determined, after performing a qualitative test of the reporting unit, that it is more likely than not that the fair value of the reporting unit exceeds its carrying amount. Accordingly, there was no indication of impairment and the quantitative impairment test was not performed. The Company did not record any goodwill impairment charges for the years ended December 31, 2020 or 2019.

The Company classifies intangible assets into three categories: (1) intangible assets with definite lives subject to amortization; (2) intangible assets with indefinite lives not subject to amortization; and (3) goodwill. The Company determines the useful lives of its identifiable intangible assets after considering the specific facts and circumstances related to each intangible asset. Factors considered when determining useful lives include the contractual term of any agreement related to the asset, the historical performance of the asset, the Company's long-term strategy for using the asset, any laws or regulations which could impact the useful life of the asset and other economic factors, including competition and specific market conditions. Intangible assets that are deemed to have definite lives are amortized, primarily on a straight-line basis, over their useful lives to their estimated residual values, generally five years. In-process research & development ("IPR&D") has an indefinite life and is not amortized until completion and development of the project, at which time the IPR&D becomes an amortizable asset. Until such time as the projects are either completed or abandoned, the Company test those assets for impairment at least annually at year end, or more frequently at interim periods, by evaluating qualitative factors which could be indicative of impairment. Qualitative factors being considered include, but are not limited to, macro-economic conditions, progress on drug development activities, and overall financial performance. If impairment indicators are present as a result of the Company's qualitative assessment, the Company will test those assets for impairment by comparing the fair value of the assets to their carrying value. Quantitative factors being considered include, but are not limited to, the current project status, forecasted changes in the timing or amounts required to complete the project, forecasted changes in timing or changes in the future cash flows to be generated by the completed products, a probability of success of the ultimate project and changes to other market-based assumptions, such as discount rates. Upon completion or abandonment, the value of the IPR&D assets will be amortized to expense over the anticipated useful life of the developed products, if completed, or charged to expense when abandoned if no alternative future use exists.

The Company completed its annual impairment assessment during the fourth quarter of 2020 and 2019. No impairments were identified during the years ended December 31, 2020 and 2019.

Revenue Recognition – The majority of the Company's revenue contracts represent a single performance obligation related to the fulfillment of customer orders for the purchase of its products. Net sales reflect the transaction prices for these contracts based on the Company's selling list price, which is then reduced by estimated costs for trade promotional programs, consumer incentives, and allowances and discounts used to incentivize sales growth and build brand awareness. The Company recognizes revenue at the point in time that control of the ordered product is transferred to the customer, which is typically upon shipment to the customer or other customer-designated delivery point. The Company accrues for estimated sales returns by customers based on historical sales return results. The computation of the sales return and discount allowances require that management makes certain estimates and assumptions that effect the timing and amounts of revenue and liabilities recorded. Shipping and handling fees charged to customers are included in product sales and totaled $0.2 million and $0.3 million for the years ended December 31,

2020 and 2019, respectively. Taxes collected from customers that are remitted to governmental agencies are accounted for on a net basis and not included as revenue.

The following represents product sales by channel for food, drug and mass ("FDM"), natural product and other, and e-commerce for the years ended December 31, 2020 and 2019:

	For the years ended December 31,			
	2020		2019	
	(in thousands) Amount	% of product sales, net	(in thousands) Amount	% of prodct sales, net
Retail - FDM	$ 1,651	6.8 %	$ 2,229	4.2 %
Retail - Natural products and other	15,073	61.7 %	41,534	77.3 %
E-Comm	7,705	31.5 %	9,933	18.5 %
Product sales, net	$ 24,429	100.0 %	$ 53,696	100.0 %

Compensation and Benefits – The Company records compensation and benefits expense for all cash and deferred compensation, benefits, and related taxes as earned by its employees. Compensation and benefits expense also includes compensation earned by temporary employees and contractors who perform similar services to those performed by the Company's employees, primarily information technology and project management activities. The Company maintains a defined contribution 401(k) plan available to eligible employees. Employee contributions are voluntary and are determined on an individual basis, limited to the maximum amount allowable under federal tax regulations. The Company, at its discretion, may make certain matching contributions to the 401(k) plan. The Company suspended its matching contributions in April 2020. The Company made matching contributions of $0.1 million and $0.2 million for the years ended December 31, 2020 and 2019, respectively.

Research and Development Expense – Research and development costs are charged to expense as incurred and include, but are not limited to, employee salaries and benefits, cost of inventory used in product development, consulting service fees, the cost of renting and maintaining our laboratory facility and depreciation of laboratory equipment. Research and development expense for the consumer products segment was $0.7 million and $2.1 million for the years ended December 31, 2020 and 2019, respectively. Research and development expense for the specialty pharmaceutical segment was $2.2 million and $3.8 million for the years ended December 31, 2020 and 2019, respectively.

Advertising – The Company supports its products with advertising to build brand awareness of the Company's various products in addition to other marketing programs executed by the Company's marketing team. The Company believes the continual investment in advertising is critical to the development and sale of its products. Advertising costs of $1.3 million and $2.5 million were expensed as incurred during the years ending December 31, 2020 and 2019, respectively.

Stock-Based Compensation – Certain employees, officers, directors, and consultants of the Company participate in various long-term incentive plans that provide for granting stock options, restricted stock awards, restricted stock units, stock bonus awards and performance-based awards. Stock options generally vest in equal increments over a two- to four-year period and expire on the tenth anniversary following the date of grant. Performance-based stock options vest once the applicable performance condition is satisfied.

The Company recognizes stock-based compensation for equity awards granted to employees, officers and directors as compensation and benefits expense in the consolidated statements of operations. The fair value of stock options is estimated using a Black-Scholes valuation model on the date of grant. The fair value of restricted stock awards is equal to the closing price of the Company's stock on the date of grant. Stock-based compensation is recognized over the requisite service period of the individual awards, which generally equals the vesting period. For performance-based stock options, compensation is recognized once the applicable performance condition is satisfied.

Income Taxes – Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which the related temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized when the rate change is enacted. Valuation allowances are recorded to reduce deferred tax assets to the amount that will more likely than not be realized. In accordance with ASC Topic 740, *Income Taxes*, the Company recognizes the effect of uncertain income tax positions only if the positions are more likely than not of being sustained in an audit, based on the technical merits of the position. Recognized uncertain income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in

recognition or measurement are reflected in the period in which those changes in judgment occur. The Company recognizes both interest and penalties related to uncertain tax positions as part of the income tax provision. As of December 31, 2020 and 2019 the Company did not have a liability for unrecognized tax uncertainties. The Company is subject to routine audits by taxing jurisdictions. Management believes the Company is no longer subject to tax examinations for the years prior to 2013.

Comprehensive Loss – Comprehensive loss is defined as a change in equity during a period from transactions and other events and circumstances from non-owner sources. There have been no items qualifying as other comprehensive loss and, therefore, the Company's comprehensive loss was the same as its reported net loss for the years ended December 31, 2020 and 2019.

Recent Accounting Pronouncements Not Yet Adopted

In June 2016, the Financial Accounting Standards Board ("FASB") issued ASU No. 2016-13, Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments and subsequent amendments to the initial guidance: ASU 2018-19, ASU 2019-04 and ASU 2019-05 (collectively, "Topic 326"). Topic 326 requires measurement and recognition of expected credit losses for financial assets held. Topic 326 was to be effective for reporting periods beginning after December 15, 2019, with early adoption permitted. In November 2019, the FASB issued ASU 2019-10, Financial Instruments - Credit Losses (Topic 326), Derivatives and Hedging (Topic 815), and Leases (Topic 842) Effective Dates, which deferred the effective dates for the Company, as a smaller reporting company, until fiscal year 2023. The Company currently plans to adopt the guidance at the beginning of fiscal 2023. The Company is currently evaluating the potential impact of Topic 326 on the Company's consolidated financial statements.

In December 2019, the FASB issued ASU 2019-12, Simplifying the Accounting for Income Taxes ("ASU 2019-12"), which simplifies the accounting for income taxes, eliminates certain exceptions within ASC 740, Income Taxes, and clarifies certain aspects of the current guidance to promote consistency among reporting entities. The new standard is effective for fiscal years beginning after December 15, 2020. Most amendments within the standard are required to be applied on a prospective basis, while certain amendments must be applied on a retrospective or modified retrospective basis. The Company is currently evaluating the potential impact of ASU 2019-12 on the Company's consolidated financial statements.

Recently Adopted Accounting Standards

In January 2017, the FASB issued ASU 2017-04, Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment ("ASU 2017-04"), which eliminates Step 2 from the goodwill impairment test. Instead, an entity should perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should then recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. Additionally, an entity should consider income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit when measuring the goodwill impairment loss, if applicable. ASU 2017-04 requires the entity to apply these amendments on a prospective basis for which it is required to disclose the nature of and reason for the change in accounting upon transition. This disclosure shall be provided in the first annual period and in the interim period within the first annual period when the entity initially adopts the amendments. This ASU became effective for the Company on January 1, 2020. Adoption of ASU 2017-04 did not have an immediate impact on the Company's consolidated financial statements and only has the potential to impact the amount of any goodwill impairment recorded after the adoption of the ASU.

3. INVENTORY

Inventory as of December 31, 2020 and 2019 was comprised of the following (in thousands):

	December 31,	
	2020	**2019**
Raw materials	$ 4,923	$ 4,503
Work in process	785	415
Finished goods	3,132	5,053
	$ 8,840	$ 9,971

During the year ended December 31, 2020 and 2019, the Company recorded an inventory write-down of $0.3 million and $0.2 million, respectively. As of December 31, 2020, the Company had no inventory outside the United States. As of December 31, 2019, the Company had inventory outside the United States of $0.3 million.

4. PROPERTY & EQUIPMENT

Property and equipment, net, as of December 31, 2020 and 2019 were as follows (in thousands):

	Useful Lives	December 31, 2020	December 31, 2019
Office furniture and equipment	3 - 5 years	$ 2,596	$ 1,285
Tenant improvements	*	1,967	1,925
Laboratory and other equipment	5 years	691	691
Construction in progress		15	1,269
		5,269	5,170
Less: accumulated depreciation		(2,392)	(1,555)
		$ 2,877	$ 3,615

* Tenant improvements are amortized over the lesser of the remaining term of the related lease or the estimated useful life of the tenant improvements.

Depreciation expense for the years ended December 31, 2020 and 2019 was $0.8 million and $0.7 million, respectively.

5. INTANGIBLE ASSETS

Intangible assets consist of the following as of December 31, 2020 and 2019 (in thousands):

	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Useful Life (Years)
Balance - December 31, 2020:				
In-process research and development	$ 3,730	$ —	$ 3,730	—
Trade names	100	100	—	5
Non-compete agreements	77	77	—	5
	$ 3,907	$ 177	$ 3,730	
Balance - December 31, 2019:				
In-process research and development	$ 3,730	$ —	$ 3,730	—
Trade names	100	80	20	5
Non-compete agreements	77	61	16	5
	$ 3,907	$ 141	$ 3,766	

The Company did not incur costs to renew or extend the term of acquired intangible assets for the years ended December 31, 2020 and 2019. Amortization expense for intangible assets was $36 thousand and $35 thousand for the years ended December 31, 2020 and 2019, respectively. There isno future amortization expense.

6. ACCRUED EXPENSES

Accrued expenses as of December 31, 2020 and 2019 were as follows (in thousands):

	December 31,	
	2020	2019
Accrued payroll expenses (1)	$ 8,324	$ 8,787
Other accrued liabilities	1,481	2,069
	$ 9,805	$ 10,856

(1) This includes a tax liability associated with a related party transaction as discussed in Note 11 of $6.2 million and $6.6 million as of December 31, 2020 and 2019, respectively.

7. DEBT

Debt as of December 31, 2020 was as follows (in thousands):

	December 31, 2020
PPP loan	$ 2,906
Insurance financing	721
	3,627
Less: Current portion of debt	(2,174)
Long-term portion of debt	$ 1,453

The Company did not have any debt as of December 31, 2019.

Principal payments on the debt are as follows (in thousands):

	December 31, 2020
2021	$ 2,174
2022	1,453
Total principal payments	$ 3,627

Paycheck Protection Program

On April 15, 2020, the Company applied for a loan from JPMorgan Chase Bank, N.A., as lender, pursuant to the Paycheck Protection Program of the CARES Act as administered by the U.S. Small Business Administration. On April 17, 2020, the loan was approved, and the Company received proceeds in the amount of $2.9 million (the "PPP Loan").

The PPP Loan, which took the form of a promissory note, matures on April 15, 2022 and bears interest at a rate of 0.98% per annum (the "Promissory Note"). The Company did not provide any collateral or guarantees for the PPP Loan, nor did the Company pay any facility charge to obtain the PPP Loan. The Promissory Note provides for customary events of default, including, among others, those relating to failure to make payment, bankruptcy, breaches of representations and material adverse effects. The Company may prepay the principal of the PPP Loan at any time without incurring any prepayment charges.

Under the CARES Act, loan forgiveness is available for the sum of documented payroll costs, covered rent payments, and covered utilities during the covered period of 8 weeks beginning on the date of loan approval. For purposes of the CARES Act, payroll costs exclude compensation of an individual employee in excess of $100,000, prorated annually. Not more than 25% of the forgiven amount may be for non-payroll costs. Forgiveness is reduced if full-time headcount declines, or if salaries and wages for employees with salaries of $100,000 or less annually are reduced by more than 25%. In the event the PPP Loan, or any portion thereof, is forgiven pursuant to the PPP, the amount forgiven is applied to outstanding principal.

The Paycheck Protection Program Flexibility Act of 2020 (the "PPP Flexibility Act"), enacted on June 5, 2020, amended the Paycheck Protection Program, among others, as follows: (i) extended the covered period from 8 weeks to 24 weeks from the date the PPP Loan is originated, during which PPP funds needed to be expended in order to be forgiven. A borrower may submit a loan forgiveness application any time on or before the maturity date of the loan – including before the end of the covered period –

if the borrower has used all of the loan proceeds for which the borrower is requesting forgiveness. (ii) at least 60% of PPP funds must be spent on payroll costs, with the remaining 40% available to spend on other eligible expenses. (iii) payments are deferred until the date on which the amount of forgiveness determined is remitted to the lender. If a borrower fails to seek forgiveness within 10 months after the last day of its covered period, then payments will begin on the date that is 10 months after the last day of the covered period. In addition, the PPP Flexibility Act modified the CARES Act by increasing the maturity date for loans made after the effective date from two years to a minimum maturity of five years from the date on which the borrower applies for loan forgiveness. Existing PPP loans made before the new legislation retain their original two-year term, but may be renegotiated between a lender and a borrower to match the 5-year term permitted under the PPP Flexibility Act.

The Company intends to apply for loan forgiveness within the required timeframe. No assurance is provided that the Company will obtain forgiveness of the PPP Loan in whole or in part. The promissory note is classified as long-term except for the portion to be paid within twelve months of the year-end, which is classified as current.

Unsecured Note Payable

In October 2018, the Company entered into a finance agreement with First Insurance Funding in order to fund a portion of its insurance policies, which was amended in January 2019. The amount financed was $0.5 million and incurred interest at a rate of 5.15%. The Company was required to make monthly payments of $0.1 million through July 2019. As of December 31, 2019, amounts were repaid in full.

In October 2020, the Company entered into a finance agreement with First Insurance Funding in order to fund a portion of its insurance policies. The amount financed is $0.7 million and incurs interest at a rate of 3.60%. The Company is required to make monthly payments of $0.1 million through July 2021. The outstanding balance as of December 31, 2020 was $0.7 million.

8. STOCKHOLDERS EQUITY

Common Stock

The Company is authorized to issue up to 190,000,000 shares of common stock (par value $0.0001). As of December 31, 2020 and 2019, the Company had 100,664,000 and 99,416,000 shares of common stock issued and outstanding, respectively.

On December 8, 2020, the Company entered into a common stock purchase agreement ("SPA") with Tumim Stone Capital, LLC ("Tumim") to issue and sell up to $10.0 million in shares of the Company's common stock. The SPA provides, among other things, that the Company may direct, every three trading days, Tumim to purchase a number of shares not to exceed an amount determined based upon the trading volume and stock price of the Company's shares. The Company determined that the right to sell shares of common stock to Tumim under the SPA represents a freestanding put option under ASC 815 Derivatives and Hedging. Tumim has no right to require the Company to sell any shares of common stock to Tumim, but Tumim is obligated to purchase up to $10.0 million of the Company's common stock. Such sales of common stock by the Company will be subject to certain limitations, and may occur from time to time, at the Company's sole discretion till December 31, 2021. The Company determined that the fair value of the put option is zero as the shares will be issued at a discount and settled within one business day. During the year ended December 31, 2020, the Company sold 450,000 shares of common stock pursuant to the SPA and recognized proceeds of $ 0.2 million. The Company issued 185,454 shares of common stock to Tumim as commitment fee in connection with entering into the SPA. In addition, the Company incurred offering cost of $ 0.3 million. In accordance with ASC 825-10-25-3, upfront costs and fees related to items for which the fair value option is elected shall be recognized in earnings as incurred and not deferred. As such, the Company recorded the fair value of the commitment fee shares of $0.1 million and offering cost of $0.3 million to general and administrative expense.

Preferred Stock

The Company is authorized to issue up to 10,000,000 shares of $0.0001 par value preferred stock with designations, rights and preferences to be determined from time to time by the Board of Directors. Each such series or class shall have voting powers, if any, and such preferences and/or other special rights, with such qualifications, limitations or restrictions of such preferences and/or rights as shall be stated in the resolution or resolutions providing for the issuance of such series or class of shares of preferred stock. As of December 31, 2020, and 2019, there is no preferred stock issued and outstanding.

9. STOCK-BASED COMPENSATION

As of December 31, 2020, there are 34,976,000 shares authorized for issuance under the CV Sciences, Inc. Amended and Restated 2013 Equity Incentive Plan (the "2013 Plan"). As of December 31, 2020, the Company had 6,165,000 authorized unissued shares reserved and available for issuance upon exercise and conversion of outstanding awards under the Amended 2013 Plan. On June 11, 2019, the Company's stockholders approved to add an automatic "evergreen" provision regarding the number of shares to be annually added to the 2013 Plan. As a result, the number of shares of common stock that will be automatically added to the 2013 Plan on January 1 of each year during the term of the plan, starting with January 1, 2020, will be the lesser of: (a) 4% of the total shares of the Company's common stock outstanding on December 31st of the prior year, (b) 4,000,000 shares of the Company's common stock, or (c) a lesser number of shares of the Company's common stock as determined by the Company's Board of Directors. On January 1, 2021, the Company added 4,000,000 shares to the 2013 Plan.

The stock options are exercisable at no less than the fair market value of the underlying shares on the date of grant, and restricted stock and restricted stock units are issued at a value not less than the fair market value of the common stock on the date of the grant. Generally, stock options awarded are vested in equal increments ranging from two to four years on the annual anniversary date on which such equity grants were awarded. The stock options generally have a maximum term of 10 years.

The Company recognized stock-based compensation expense of $3.9 million and $15.1 million for the years ended December 31, 2020 and 2019, respectively. During the year ended December 31, 2019, the Company recorded stock-based compensation expense of $9.5 million related to the settlement of the Company's former founder's employment agreements. For more information refer to Note 11, Related Parties.

In June 2020, the Company's board of directors approved a stock option modification that reduced certain employees' and directors' stock option exercise prices to $0.66. No other terms were modified. Stock options to purchase a total of 2,130,000 shares of common stock were modified. The modification to the existing stock options resulted in $0.2 million incremental value of the stock options. The incremental value associated with the modification will be recognized over the life of the remaining service period of the options. During the year ended December 31, 2020, the Company recorded $0.1 million in stock-based compensation associated with the repriced options.

As of December 31, 2020, total unrecognized compensation cost related to non-vested stock-based compensation arrangements was $2.7 million which is expected to be recognized over a weighted-average period of 1.3 years.

The following summarizes activity related to the Company's stock options (in thousands, except per share data):

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contract Term (in years)	Aggregate Intrinsic Value
Outstanding - December 31, 2019	28,105	$ 0.80	5.4	$ 12,335
Granted	6,210	0.41	—	—
Exercised	(612)	0.37	—	—
Forfeited	(8,478)	0.91	—	—
Outstanding - December 31, 2020	25,225	0.48	5.7	2,186
Exercisable - December 31, 2020	22,254	0.46	5.3	2,010
Vested or expected to vest - December 31, 2020	25,225	$ 0.48	5.7	$ 2,186

The Company has established performance milestones in connection with the drug development efforts for its lead drug candidate CVSI-007. The above table includes 5,000,000 vested performance-based options as of December 31, 2020, which were issued outside of the 2013 Plan. As of December 31, 2020, there were 8,000,000 remaining unvested stock options granted outside of the 2013 Plan which vest upon the completion of future performance conditions, including those related to the Settlement Agreement with Mona Jr. (refer to Note 11).

The total intrinsic value of stock options exercised during the year ended December 31, 2020 and 2019 was $0.1 million and $4.3 million, respectively.

The following table presents the weighted average grant date fair value of stock options granted and the weighted-average assumptions used to estimate the fair value on the date of grant using the Black-Scholes valuation model:

	For the years ended December 31,	
	2020	**2019**
Volatility	132.9%	126.1%
Risk-Free Interest Rate	0.5%	1.6%
Expected Term (in years)	5.33	2.74
Dividend Rate	0.0%	0.0%
Fair Value Per Share on Grant Date	$0.36	$1.92

Expected volatility is based on the historical volatility of the Company's common stock. Expected volatility through September 30, 2019 was calculated based on the Company's peer group, consisting of five companies in the industry in which the Company operates because the Company did not have sufficient historical volatility data. The risk-free interest rates are based on the implied yield available on U.S. Treasury constant maturities with remaining terms equivalent to the respective expected terms of the options. The Company estimates the expected term for stock options awarded to employees, non-employees, officers and directors using the simplified method in accordance with ASC Topic 718, Stock Compensation, because the Company does not have sufficient relevant historical information to develop reasonable expectations about future exercise patterns. In the future, as the Company gains historical data for the actual term over which stock options are held, the expected term may change, which could substantially change the grant-date fair value of future stock option awards, and, consequently, compensation of future grants.

During the year ended December 31, 2019 2,950,000 restricted stock units ("RSU's") vested with a weighted average grant date fair value of $2.14 per share. The total fair value of RSU's vested during the year ended December 31, 2019 was $6.3 million. There are no outstanding RSU's as of December 31, 2020.

10. NET LOSS PER SHARE

The Company computes basic net loss per share using the weighted-average number of common shares outstanding during the period. Diluted net loss per share is calculated by dividing net loss by the weighted-average number of common shares plus potential common shares. The Company's stock options, including those with performance conditions, are included in the calculation of diluted net loss per share using the treasury stock method when their effect is dilutive. Potential common shares are excluded from the calculation of diluted net loss per share when their effect is anti-dilutive.

The following common stock equivalents were not included in the calculation of net loss per diluted share because their effect were anti-dilutive (in thousands):

	For the years ended December 31,	
	2020	**2019**
Stock options	20,225	18,105
Performance stock options	5,000	10,000
Total	25,225	28,105

The above table excludes 8,000,000 unvested performance stock options for the years ended December 31, 2020 and 2019, which vest upon the completion of future performance conditions.

11. RELATED PARTIES

During the year ended December 31, 2019, the Company's former President and Chief Executive Officer, Michael Mona Jr. ("Mona Jr."), and the Company entered into a Settlement Agreement (the "Settlement Agreement"), pursuant to which the Company agreed that Mona Jr.'s resignation from the Company on January 22, 2019 was for Good Reason (as defined in Mona Jr.'s Employment Agreement) and agreed to extend the deadline for Mona Jr.'s exercise of his stock options for a period of five years. As of December 31, 2020, Mona Jr. has 11,300,000 fully vested outstanding stock options with a weighted average exercise price of $0.42 per share. In exchange, Mona Jr. agreed that notwithstanding the terms of his Employment Agreement

providing for acceleration of vesting of all stock options and RSU's upon a Good Reason resignation, certain of his unvested stock options would not immediately vest, but rather continue to vest if, and only if, certain Company milestones are achieved related to the Company's drug development efforts. These stock options were issued in July 2016 (6,000,000 options) and March 2017 (5,000,000 options) and 6,750,000 of these stock options have not vested as of December 31, 2020. The Company and Mona Jr. also agreed to mutually release all claims arising out of and related to Mona Jr.'s resignation and separation from the Company. As a result of the Settlement Agreement, the Company recorded stock-based compensation expense related to the accelerated vesting of the RSU's of $5.1 million and the modification of certain stock options of $2.7 million during the year ended December 31, 2019.

As part of the Settlement Agreement, 2,950,000 vested RSU's were issued to Mona Jr. The vesting of the RSU's and payment of shares is treated as taxable compensation and thus subject to income tax withholdings. No amounts were withheld (either in cash or the equivalent of shares of common stock from the vesting of the RSU's) or included in the original Company's payroll tax filing. The compensation is subject to Federal and State income tax withholding and Federal Insurance Contributions Act ("FICA") taxes withholding estimated to be $6.4 million for the employee portions. The employer portion of the FICA taxes is $0.2 million and has been recorded as a component of selling, general and administrative expenses in the consolidated statement of operations for the year ended December 31, 2019. During the year ended December 31, 2020, the Company reported the taxable compensation associated with the RSU release to the taxing authorities and included the amount in Mona Jr.'s W-2 for 2019. In addition, the Company paid the employer and employee portion of the FICA taxes of $0.2 million, respectively. Although the primary tax liability is the responsibility of the employee, the Company is secondarily liable and thus has recorded the liability on its consolidated balance sheet as of December 31, 2020 in an amount of $6.2 million which was recorded as a component of accrued expenses. The Company initially recorded an offsetting receivable of $6.2 million during the second quarter of 2019 for the total estimated Federal and State income taxes which should have been withheld in addition to the employee portion of the FICA payroll taxes as the primary liability is ultimately the responsibility of the employee. The receivable was recorded as a component of prepaid expense and other on the consolidated balance sheet. The deadline to file and pay personal income taxes for 2019 was on October 15, 2020. To date, Mona Jr. has not provided to the Company the appropriate documentation substantiating that he properly filed and paid his taxes for 2019. As a result, the Company derecognized its previously recorded receivable of $ 6.2 million during the fourth quarter of 2020. The associated liability may be relieved once the tax amount is paid by Mona Jr. and the Company has received the required taxing authority documentation from Mona Jr. If the tax amount is not paid by Mona Jr., the Company would be liable for such withholding tax due. Additionally, the Company could be subject to penalties if the amounts are ultimately not paid. The Company does not believe that any such penalties are probable or reasonably possible as of December 31, 2020.

On July 22, 2020, the Company filed a complaint in the San Diego Superior Court for declaratory relief to confirm the termination of Mona Jr.'s severance and other post-termination compensation and benefits, and to recover amounts owed to the Company by Mona Jr. in connection with his purchase of personal seat licenses for the Raiders stadium and certain advance payments made on Mona Jr.'s behalf. The complaint also requests that Mona Jr. provides the Company with appropriate taxing authority documentation to show that he paid the tax associated with the vesting of the RSU's. Refer also to Note 12, Commitment and Contingencies, for more information. The Company recorded a payable to Mona Jr. of $ 0.4 million and $0.6 million as of December 31, 2020 and 2019, respectively. The amounts are mostly related to termination benefits associated with his separation from the Company and are payable via regular payroll through June 2021. The Company has not paid any termination benefits to Mona Jr. since filing the complaint. As of December 31, 2020, the entire amount is included in accrued expenses. As of December 31, 2019, the Company recorded $ 0.4 million in accrued expenses and $0.2 million in other liabilities.

In addition, on December 31, 2019, the Company's former Chief Operating Officer and co-founder, Michael Mona III ("Mona III"), resigned from the Company. The Company recorded stock-based compensation expense related to the accelerated vesting of Mona III's unvested outstanding options of $1.7 million during the year ended December 31, 2019 with no assumed forfeiture rate. The Company recorded a payable to Mona III of $0.2 million and $0.7 million as of December 31, 2020 and 2019, respectively. The amounts are mostly related to termination benefits associated with his separation from the Company and are payable via regular payroll through June 2021. As of December 31, 2020, the entire amount is included in accrued expenses. As of December 31, 2019, the Company recorded $0.4 million in accrued expenses and $0.2 million in other liabilities.

12. COMMITMENTS AND CONTINGENCIES

On March 17, 2015, Michael Ruth filed a shareholder derivative suit in Nevada District Court alleging breach of fiduciary duty and gross mismanagement (the "Ruth Complaint"). The claims are premised on the same events that were the subject of a purported class action filed in the Southern District of New York on April 23, 2014 (the "Sallustro Case"). On July 2, 2019, the

court in the Sallustro Case entered a final order dismissing the complaint with prejudice. The Company did not make any settlement payment, and at no time was there a finding of wrongdoing by the Company or any of its directors. Regarding the Ruth Complaint, the Company and Mr. Ruth previously agreed to stay the action pending the conclusion of discovery in the Sallustro Case. Now that the Sallustro Case has been dismissed, the stay has been lifted. Plaintiff's counsel recently informed the Court that Mr. Ruth sold his shares of CVSI stock and thus he no longer has standing to pursue this claim. However, the Court allowed Plaintiff's counsel to substitute CVSI shareholder Otilda Lamont as the named plaintiff. On September 20, 2019, the Company filed a motion to dismiss the Ruth Complaint and the Court issued a ruling denying the motion to dismiss on November 24, 2020. A Third Amended Complaint was filed on December 11, 2020 substituting Otilda Lamont as plaintiff. The Company filed an answer to the Ruth Complaint on January 11, 2021 and discovery recently commenced. The Court issued a schedule whereby discovery ends on November 19, 2021. Management intends to vigorously defend the allegations.

On August 24, 2018, David Smith filed a purported class action complaint in Nevada District Court (the "Smith Complaint") alleging certain misstatements in the Company's public filings that led to stock price fluctuations and financial harm. Several additional individuals filed similar claims, and the Smith Complaint and each of the other suits all arise out of a report published by Citron Research on Twitter on August 20, 2018, suggesting that the Company misled investors by failing to disclose that the Company's efforts to secure patent protection for CVSI-007 had been "finally rejected" by the United States Patent and Trademark Office ("USPTO"). On November 15, 2018, the court consolidated the actions and appointed Richard Ina, Trustee for the Ina Family Trust, as Lead Plaintiff for the consolidated actions. On January 4, 2019, Counsel for Lead Plaintiff Richard Ina, Trustee for the Ina Family Trust, filed a "consolidated amended complaint". On March 5, 2019, we filed a motion to dismiss the action. The Court denied the motion to dismiss on December 10, 2019, and the parties have commenced discovery in the action with a discovery cutoff date of May 24, 2021. Arising out of the same facts and circumstances in the Smith Complaint, on June 11, 2020, Phillip Berry filed a derivative suit in the United States District Court for the Southern District of California alleging breaches of fiduciary duty against the Company and various defendants, and waste of corporate assets (the "Berry Complaint"). The Company has accepted service of the Berry Complaint and a motion to dismiss is currently pending. In addition to the Berry Complaint, four additional shareholder derivative suits have been filed which are premised on the same event as the Smith Complaint. All four actions are currently stayed. On May 19, 2020, the USPTO issued a patent pertaining to CVSI-007, which the Company believes negates and defeats any claims that the Company and the various defendants misled the market by not disclosing that the USPTO had finally rejected the patent. Management intends to vigorously defend the allegations in each of these matters as the result of the issuance of a patent and the failure of the plaintiffs' causes of action on various other grounds.

On December 3, 2019, Michelene Colette and Leticia Shaw filed a putative class action complaint in the Central District of California, alleging the labeling on the Company's products violated the Food, Drug, and Cosmetic Act of 1938 (the "Colette Complaint"). On February 6, 2020, the Company filed a motion to dismiss the Colette Complaint. Instead of opposing our motion, plaintiffs elected to file an amended complaint on February 25, 2020. On March 11, 2020, we filed a motion to dismiss the amended complaint. The court issued a ruling on May 22, 2020 that stayed this proceeding in its entirety and dismissed part of the amended complaint. The portion of the proceeding that is stayed will remain stayed until the U.S. Food and Drug Administration promulgates rules that govern cannabidiol products (the "FDA Rules"). When such FDA Rules are promulgated, the plaintiffs will be allowed to ask the court to reopen the proceeding. Management intends to vigorously defend the allegations.

On July 22, 2020, the Company filed a complaint in the San Diego Superior Court for declaratory relief to confirm the termination of Mona Jr.'s severance and other post-termination compensation and benefits, as well as to recover amounts owed to the Company by Mona Jr. in connection with his purchase of a personal seat license for the Raiders Stadium and certain advance payments made on Mona Jr.'s behalf. The complaint also requests that Mona Jr. provides the Company with appropriate taxing authority documentation to show that he paid the tax associated with the vesting of the RSU's.

In the normal course of business, the Company is a party to a variety of agreements pursuant to which they may be obligated to indemnify the other party. It is not possible to predict the maximum potential amount of future payments under these types of agreements due to the conditional nature of our obligations, and the unique facts and circumstances involved in each particular agreement. Historically, payments made by us under these types of agreements have not had a material effect on our business, results of operations or financial condition.

13. LEASES

The Company has entered into operating leases primarily for real estate. These leases are for the Company's operations, production, warehouse, sales, marketing and back office functions. On July 27, 2020, the Company entered into a lease termination agreement for one of its facilities in San Diego, which was effective August 31, 2020. The Company derecognized the related operating lease obligation of $5.1 million and operating lease asset of $4.7 million as of August 31, 2020, and recorded an associated gain from lease termination of $0.4 million, which is recorded as a component of selling, general and administrative expense in the consolidated statements of operations for the year ended December 31, 2020. As of December 31, 2020, total operating lease assets and operating lease liabilities were $3.1 million and $4.1 million, respectively.

The Company recognized total lease costs of $1.0 million and $1.5 million for the year ended December 31, 2020 and 2019, respectively. Total lease costs was mostly comprised of operating lease costs. Short-term lease costs related to short-term operating leases and variable lease costs were immaterial.

Because the rate implicit in each lease is not readily determinable, the Company uses the rate of interest that a lessee would have to pay to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment, which the Company determined based on comps obtained from lenders for similar financing. The Company has certain contracts for real estate which may contain lease and nonlease components which it has elected to treat as a single lease component. Cash paid for operating lease liabilities for the year ended December 31, 2020 was $1.1 million. Information related to the Company's operating lease assets and related lease liabilities were as follows:

	December 31, 2020
Weighted average remaining lease term (in months)	60.64
Weighted average discount rate	6.5 %

Maturities of lease liabilities as of December 31, 2020 were as follows (in thousands):

Year ending December 31,	
2021	$ 928
2022	925
2023	957
2024	986
2025	1,015
Thereafter	85
	4,896
Less imputed interest	(749)
Total lease liabilities	$ 4,147

Current operating lease liabilities	$ 680
Non-current operating lease liabilities	3,467
Total lease liabilities	$ 4,147

14. SEGMENT INFORMATION

The Company operates in two distinct business segments: a consumer products segment in manufacturing, marketing and selling hemp-based CBD products to a range of market sectors; and a specialty pharmaceutical segment focused on developing and commercializing novel therapeutics utilizing CBD. The Company's segments maintain separate financial information for which operating results are evaluated on a regular basis by the Company's senior management in deciding how to allocate resources and in assessing performance. The Company evaluates its consumer products segment based on net product sales, gross profit and operating income or loss. The Company currently evaluates its specialty pharmaceutical segment based on the progress of its clinical development programs.

The following table presents information by reportable operating segment for the years ended December 31, 2020 and 2019 (in thousands):

	Consumer Products Segment	Specialty Pharmaceutical Segment	Consolidated Totals
Year ended December 31, 2020:			
Product sales, net	$ 24,429	$ —	$ 24,429
Gross profit	$ 11,009	$ —	$ 11,009
Research and development	678	2,265	2,943
Selling, general and administrative	30,547	111	30,658
Operating loss	$ (20,216)	$ (2,376)	$ (22,592)
Year ended December 31, 2019:			
Product sales, net	$ 53,696	$ —	$ 53,696
Gross profit	$ 35,088	$ —	$ 35,088
Research and development	2,106	3,771	5,877
Selling, general and administrative	46,405	46	46,451
Operating loss	$ (13,423)	$ (3,817)	$ (17,240)

The Company's specialty pharmaceutical segment includes goodwill of $2.8 million as of December 31, 2020 and 2019. In addition, the Company's intangible assets of $3.7 million and $3.8 million as of December 31, 2020 and 2019, respectively, are included in the specialty pharmaceutical segment. All other assets are included in the consumer products segment as of December 31, 2020 and 2019. The majority of the Company's sales are to U.S. based customers.

15. INCOME TAXES

The Company is subject to taxation in the U.S. and California state jurisdictions. The Company's pretax loss for the years ended December 31, 2020 and 2019, were generated by domestic operations. The income tax benefit for the years ended December 31, 2020 and 2019 was comprised of the following (in thousands):

	For the years ended December 31,	
	2020	2019
Current:		
Federal	$ —	$ —
State	(52)	29
Total current tax expense (benefit)	(52)	29
Deferred:		
Federal	(1)	(640)
State	(264)	(4)
Total deferred tax benefit	(265)	(644)
Income tax benefit	$ (317)	$ (615)

A reconciliation of the expected income tax benefit at the federal statutory rate of 21% for the years ended December 31, 2020 and 2019, and the income tax benefit reported in the financial statements is as follows:

	For the years ended December 31,			
	2020		2019	
	Amount	% of pretax income (loss)	Amount	% of pretax income (loss)
Income tax benefit at federal statutory rate	$ (4,746)	21.0 %	$ (3,624)	21.0 %
State taxes, net of federal effect	(1,391)	6.2	(1,142)	6.6
Other permanent differences	115	(0.5)	43	(0.2)
Stock-based compensation	569	(2.5)	(274)	1.6
Non-deductible officer compensation (IRC 162(m))	—	—	1,242	(7.2)
R&D tax credits	(242)	1.1	(320)	1.9
Other	769	(3.6)	(241)	1.4
Increase in valuation allowance	4,609	(20.4)	3,701	(21.5)
Income tax benefit	$ (317)	1.3 %	$ (615)	3.6 %

The following table summarizes the significant components of the Company's deferred tax assets and liabilities as of December 31, 2020 and 2019 (in thousands):

	December 31,	
	2020	2019
Deferred tax assets:		
Net operating loss carryforwards	$ 5,876	$ 2,627
Business credit carryforwards	918	620
Intangible assets	756	890
Stock-based compensation	6,470	6,740
Change to inventory	61	268
Operating lease liabilities	1,126	2,866
Accruals and reserves	2,275	383
	17,482	14,394
Deferred tax liabilities:		
Operating lease assets	(830)	(2,437)
Property and equipment	(396)	(390)
CanX intangible assets	(1,013)	(1,054)
Other	(29)	(172)
	(2,268)	(4,053)
Valuation allowance	(15,371)	(10,762)
Net deferred tax liabilities	$ (157)	$ (421)

The valuation allowance increased by $4.6 million for the year ended December 31, 2020 and increased by $3.7 million for the year ended December 31, 2019.

Deferred tax assets and liabilities are provided for significant revenue and expense items recognized in different years for tax and financial reporting purposes. The Company periodically assesses the likelihood that it will be able to recover its deferred tax assets. The Company considers all available evidence, both positive and negative, including historical levels of income, expectations and risks associated with estimates of future taxable income, and ongoing prudent and feasible profits. As of December 31, 2020 and 2019, the Company established valuation allowances equal to the full amount of its deferred tax assets, net of certain tax liabilities, due to the uncertainties regarding the realization of the deferred tax assets in future years.

As of December 31, 2020, the Company has federal, California, and other state net operating loss (“NOL”) carryforwards of $21.4 million, 16.9 million, and $3.4 million, respectively, which are available to offset future taxable income. Federal NOL carryforwards arising after 2017 of $14.2 million do not expire. Federal NOL carryforwards arising before 2018 of $7.2 million expire from 2036 to 2037. California NOL carryforwards of 16.9 million expire from 2036 to 2040. Other state NOL carryforwards of $3.4 million have various expirations from 2038 to 2040.

As of December 31, 2020, the Company has federal and California R&D credit carryforwards of approximately $0.7 million and $0.4 million, respectively, which are available to offset future taxable income. Federal R&D credit carryforwards expire from 2034 to 2040. California R&D credit carryforwards do not expire.

The NOL carryforward may be subject to an annual limitation under Section 382 and 383 of the Internal Revenue Code of 1986 (the "Code"), and similar state provisions if the Company experienced one or more ownership changes which would limit the amount of NOL and tax credit carryforwards that can be utilized to offset future taxable income and tax, respectively. In general, an ownership change as defined by Section 382 and 383, results from the transactions increasing ownership of certain stockholders or public groups in the stock of the corporation of more than 50% over a three-year period. The Company completed a Section 382 and 383 analysis regarding the limitation of NOL and credit carryforwards from inception in December 2010 through November 4, 2019. The Company experienced multiple ownership changes for the purposes of Section 382 and 383 of the Code with the latest change in April 2017. The ownership changes did not result in the forfeiture of any NOLs or credits generated prior to this date. If a change in ownership occurs in the future, the NOL and tax credits carryforwards could be eliminated or restricted.

The Company recognizes a tax benefit from an uncertain tax position when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on the technical merits, and uncertain income tax positions must meet a more likely than not recognition threshold to be recognized. The Company recognizes interest and penalties related to unrecognized tax benefits within the income tax expense line in the consolidated statements of operations.

The Company does not anticipate a significant change in its uncertain tax benefits over the next 12 months. The Company is subject to taxation in the U.S. and California state jurisdictions. Due to net operating losses all tax years since inception remain open to examination.

A reconciliation of the Company's unrecognized tax benefits for the years ended December 31, 2020 and 2019 is provided in the following table (in thousands):

	2020	2019
Balance as of January 1:	$ —	$ —
Increase in current year positions	47	—
Increase in prior year positions	119	—
Decrease in prior year positions	—	—
Balance as of December 31:	$ 166	$ —

16. SUBSEQUENT EVENT

Subsequent to December 31, 2020, through March 19, 2021, the Company sold5,941,816 shares of common stock under its SPA with Tumim at a weighted average price of $0.53 per share, resulting in proceeds of $3.1 million.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-199173 on Form S-8 and No. 333-237772 on Form S-3 of our report dated March 19, 2021, relating to the financial statements of CV Sciences, Inc., appearing in this Annual Report on Form 10-K for the year ended December 31, 2020.

/s/ DELOITTE & TOUCHE LLP

San Diego, California
March 19, 2021

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO SECURITIES EXCHANGE ACT RULES 13a-14(a) AND 15(d)-14(a), AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Joseph D. Dowling, Chief Executive Officer of CV Sciences, Inc. (the "Company") certify that:

1. I have reviewed this Annual Report on Form 10-K of the Company;

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 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 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.

Dated: March 19, 2021

By:
/s/ Joseph D. Dowling

Joseph D. Dowling
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO SECURITIES EXCHANGE ACT RULES 13a-14(a) AND 15(d)-14(a), AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Joerg Grasser, Chief Financial Officer of CV Sciences, Inc. (the "Company") certify that:

1. I have reviewed this Annual Report on Form 10-K of the Company;

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 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 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.

Dated: March 19, 2021

By:
/s/ Joerg Grasser

Joerg Grasser
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of CV Sciences, Inc. (the "Registrant") on Form 10-K for the year ended December 31, 2020 (the "Report"), I, Joseph D. Dowling, Chief Executive Officer of the Registrant, do hereby certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) the Report, as filed with the Securities and Exchange Commission, fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Registrant.

Dated: March 19, 2021

By:

/s/ Joseph D. Dowling

Joseph D. Dowling
Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of CV Sciences, Inc. (the "Registrant") on Form 10-K for the year ended December 31, 2020 (the "Report"), I, Joerg Grasser, Chief Financial Officer of the Registrant, do hereby certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) the Report, as filed with the Securities and Exchange Commission, fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Registrant.

Dated: March 19, 2021

By:

/s/ Joerg Grasser

Joerg Grasser
Chief Financial Officer
(Principal Financial Officer)