

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

POST-EFFECTIVE AMENDMENT NO. 1
TO
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

180 Life Sciences Corp.

(Exact name of registrant as specified in its charter)

Delaware	2834	90-1890354
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

3000 El Camino Real, Bldg. 4, Suite 200
Palo Alto, CA 94306
(650) 507-0669

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

James N. Woody, M.D., Ph.D.
Chief Executive Officer
180 Life Sciences Corp.
3000 El Camino Real, Bldg. 4, Suite 200
Palo Alto, CA 94306
(650) 507-0669

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

If any of the Securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act Registration Statement number of the earlier effective Registration Statement for the same offering:

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, please check the following box and list the Securities Act Registration Statement number of the earlier effective Registration Statement for the same offering:

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act Registration Statement number of the earlier effective Registration Statement for the same offering:

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 <input type="checkbox"/>	Accelerated filer <input type="checkbox"/>
Non-accelerated filer <input checked="" type="checkbox"/>	Smaller reporting company <input checked="" type="checkbox"/>
	Emerging growth company <input checked="" type="checkbox"/>

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 7(a)(2)(B) of the Securities Act:

Pursuant to Rule 429 under the Securities Act of 1933, as amended, and as further described below under the heading "Explanatory Note", the prospectus contained in this Post-Effective Amendment No.1 to the Registration Statement on Form S-1 (File No. 333-259209) is a combined prospectus including securities remaining unsold under each of (i) the Registration Statement on Form S-1 (Registration Statement No. 333-249539) and (ii) the Registration Statement on Form S-1 (Registration Statement No. 333-258045). Accordingly, upon effectiveness, this post-effective amendment will also constitute a post-effective amendment to the Registration Statements on Form S-1 referenced in clauses (i) and (ii) of the preceding sentence.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with section 8(a) of the Securities Act of 1933, as amended, or until this Registration Statement shall become effective on such date as the commission, acting pursuant to section 8(a) of the Securities Act of 1933, as amended, may determine.

EXPLANATORY NOTE

On October 19, 2020, 180 Life Sciences Corp. (the “Company”) filed a Registration Statement on Form S-1 (File No. 333-249539) (as amended, the “October Registration Statement”), which was subsequently declared effective by the U.S. Securities and Exchange Commission (the “SEC”) on November 2, 2020 and contained a prospectus for the resale by the October Selling Stockholders (as defined in the accompanying prospectus) of up to 9,108,836 shares of common stock of the Company. The Company filed Post-Effective Amendment No. 1 to the Registration Statement on Form S-1 (File No. 333-249539) on August 2, 2021 and Post-Effective Amendment No. 2 to the Registration Statement on Form S-1 (File No. 333-249539) on August 19, 2021 (the “Second POS AM”). The Second POS AM was declared effective by the SEC on August 24, 2021 and (i) included the audited financial statements of the Company for the fiscal year ended December 31, 2020, as filed in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2020; (ii) included the unaudited financial statements of the Company for the fiscal quarter ended June 30, 2021; (iii) reduced the number of shares of common stock for resale under the October Registration Statement from 9,108,836 shares to 515,315 shares; and (iv) updated certain other information relating to the Company following the Closing (as defined in the accompanying prospectus).

On July 20, 2021, the Company filed a Registration Statement on Form S-1 (File No. 333-258045) (the “July Registration Statement”), which was declared effective by the SEC on July 27, 2021. The July Registration Statement registered the resale of up to an aggregate of 5,436,383 shares of common stock of the Company by the selling stockholders identified therein. Of the shares of common stock being registered for resale under the July Registration Statement: (i) 2,564,000 shares were issued to certain of the selling stockholders upon the closing of the private placement contemplated by the February SPA (as defined in the accompanying prospectus); (ii) 2,564,000 shares were issuable to certain of the selling stockholders upon the exercise of the February PIPE Warrants (as defined in the accompanying prospectus); (iii) 150,000 shares were issued to a former service provider to the Company pursuant to the Settlement & Release Agreement dated November 6, 2020, between our company and Cantor Fitzgerald & Co.; (iv) 158,383 shares were issued to certain selling stockholders upon conversion of the Bridge Notes (as defined in the accompanying prospectus) (the “Bridge Note Shares”). The July Registration Statement also related to the offer and sale of up to 6,001,250 shares of common stock of the Company that were issuable upon the exercise of the Public Warrants (as defined in the accompanying prospectus).

On August 31, 2021, the Company filed a Registration Statement on Form S-1 (File No. 333-259209) (the “August Registration Statement” and, together with the October Registration Statement and the July Registration Statement, the “Registration Statements”), which was declared effective by the SEC on September 9, 2021. The August Registration Statement registered the resale of up to an aggregate of 5,463,658 shares of common stock by the selling stockholders identified therein. Of the shares of common stock being registered for resale under the August Registration Statement: (i) 2,500,000 shares were issued to certain of the selling stockholders upon the closing of the private placement contemplated by the August SPA (as defined in the accompanying prospectus) (the “August SPA Shares”); (ii) 2,500,000 shares were issuable to certain of the selling stockholders upon the exercise of the August PIPE Warrants (as defined in the prospectus); (iii) 150,000 shares were issued to Alpha Capital Anstalt pursuant to the Alpha Settlement Agreement (as defined in the accompanying prospectus) (the “Alpha Shares”); (iv) 25,000 shares were issuable to Alpha Capital Anstalt upon the exercise of the Alpha Settlement Warrants (as defined in the accompanying prospectus); (v) 225,000 shares were issued to EarlyBirdCapital, Inc. pursuant to the EarlyBird Settlement Agreement (as defined in the accompanying prospectus) (the “EarlyBird Shares”); and (vi) 63,658 shares were issuable upon the exercise of the AGP Warrants (as defined in the accompanying prospectus).

This Post-Effective Amendment No. 1 (this “Post-Effective Amendment No. 1”) to the August Registration Statement is being filed (i) pursuant to Rule 429 under the Securities Act of 1933, as amended, to combine the prospectuses included in the October Registration Statement, the July Registration Statement and the August Registration Statement, (ii) to serve as a Section 10(a)(3) update to the Registration Statements and to make certain other updates to the prospectus that forms a part of this Post-Effective Amendment No. 1, and (iii) to update the section entitled “Selling Stockholders” contained in the accompanying prospectus to reflect, among other things, earlier sales or dispositions of securities made by certain of the named selling stockholders.

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Combining all of the Registration Statements, this Post-Effective Amendment No. 1 covers the offer and sale, from time to time, by certain selling stockholders, or their permitted transferees, of up to an aggregate of 4,770,008 shares of common stock by the selling stockholders identified in the accompanying prospectus. The shares of common stock being registered for resale under the accompanying prospectus consist of: (i) 46,203 shares of common stock held by certain of the October Selling Stockholders (the "Original Shares"); (ii) 33,963 shares issuable upon the exercise of the Private Placement Warrants (as defined in the accompanying prospectus) held by certain of the October Selling Stockholders (the "Original Warrants"); (iii) 2,259,000 shares issuable upon the exercise of the February PIPE Warrants; (iv) 151,633 Bridge Note Shares; (v) 2,175,000 shares issuable upon the exercise of the August PIPE Warrants; (vi) 5,551 Alpha Shares; (vii) 25,000 shares issuable upon the exercise of the Alpha Settlement Warrants; (viii) 10,000 EarlyBird Shares; and (ix) 63,658 shares issuable upon the exercise the AGP Warrants. This Post-Effective Amendment No.1 also covers the offer and sale of up to 5,750,000 shares issuable upon the exercise of the Public Warrants.

No additional securities are being registered under this Post-Effective Amendment No. 1. All applicable registration fees were paid at the time of the original filings of the Registration Statements.

The information contained in this prospectus is not complete and may be changed. The selling stockholders may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MAY 6, 2022

180 LIFE SCIENCES CORP.

Common Stock

This prospectus relates to the proposed resale or other disposition from time to time of up to an aggregate of 4,770,008 shares of the common stock, par value \$0.0001 per share, of 180 Life Sciences Corp., a Delaware corporation, by the selling stockholders identified in this prospectus. The shares of common stock being registered for resale hereunder consist of: (i) 46,203 shares of our common stock held by certain of the October Selling Stockholders (as defined herein) (the “Original Shares”); (ii) 33,963 shares issuable upon the exercise of the Private Placement Warrants (as defined herein) held by certain of the October Selling Stockholders (the “Original Warrants”); (iii) 2,259,000 shares issuable to certain of the selling stockholders upon the exercise of warrants to purchase shares of our common stock that were issued to such selling stockholders upon the closing of the private placement contemplated by the February SPA (the “February PIPE Warrants”); (iv) 151,633 shares issued to certain of the selling stockholders upon the conversion of the Bridge Notes (as defined herein) (the “Bridge Note Shares”); (v) 2,175,000 shares issuable to certain of the selling stockholders upon the exercise of warrants to purchase shares of our common stock that were issued to such selling stockholders upon the closing of the private placement contemplated by the August SPA (as defined herein) (the “August PIPE Warrants”); (vi) 5,551 shares issued to Alpha Capital Anstalt pursuant to the Alpha Settlement Agreement (as defined herein) (the “Alpha Shares”); (vii) 25,000 shares issuable to Alpha Capital Anstalt upon the exercise of the Alpha Settlement Warrants (as defined herein); (viii) 10,000 shares issued to EarlyBirdCapital, Inc. pursuant to the EarlyBird Settlement Agreement (as defined herein) (the “EarlyBird Shares”); and (ix) 63,658 shares issuable upon the exercise of a warrant to purchase shares of our common stock that was issued to Alliance Global Partners in March 2021 (the “AGP Warrants”).

This prospectus also relates to the offer and sale of up to 5,750,000 shares of common stock that are issuable by us upon the exercise of our public warrants (the “Public Warrants”), which Public Warrants were included as part of the units that we issued in our initial public offering (the “IPO”).

The Original Warrants, the February PIPE Warrants, the August PIPE Warrants, the Alpha Settlement Warrants, the AGP Warrants, and the Public Warrants are initially exercisable at exercise prices of \$11.50, \$5.00, \$7.50, \$7.07, \$5.28 and \$11.50 per share of common stock, respectively. We are not selling any common stock under this prospectus and will not receive any of the proceeds from the sale or other disposition of common stock by the selling stockholders. However, if all of the February PIPE Warrants, the August PIPE Warrants, the Alpha Settlement Warrants, the AGP Warrants and the Public Warrants that are covered by this prospectus are exercised for cash, we may receive proceeds of up to approximately \$390,575, \$11.3 million, \$16.3 million, \$176,750, \$336,114 and \$66.1 million, respectively.

The selling stockholders or their pledgees, assignees, transferees or successors-in-interest may offer and sell or otherwise dispose of the shares of common stock described in this prospectus from time to time through underwriters, broker-dealers or agents, in public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. The selling stockholders will bear all commissions and discounts, if any, attributable to the sales of shares. We will bear all other costs, expenses and fees in connection with the registration of the shares. See “Plan of Distribution” beginning on page 134 for more information about how the selling stockholders may sell or dispose of their shares of common stock.

Our common stock and Public Warrants are traded on the Nasdaq Capital Market (“Nasdaq”) under the symbols “ATNF” and “ATNFW”, respectively. On May 5, 2022, the last reported sale price for our common stock as reported on Nasdaq was \$1.28 per share, and the last reported sale price for our Public Warrants as reported on Nasdaq was \$0.2699 per Public Warrant.

INVESTING IN OUR SECURITIES INVOLVES SUBSTANTIAL RISKS. SEE THE SECTION TITLED “RISK FACTORS” BEGINNING ON PAGE 5 OF THIS PROSPECTUS TO READ ABOUT FACTORS YOU SHOULD CONSIDER BEFORE BUYING OUR SECURITIES.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is _____, 2022.

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This prospectus is part of a registration statement that we have filed with the Securities and Exchange Commission pursuant to which the selling stockholders named herein may, from time to time, offer and sell or otherwise dispose of the securities covered by this prospectus. You should rely only on the information contained in this prospectus or any related prospectus supplement. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. The information contained in this prospectus is accurate only on the date of this prospectus. Our business, financial condition, results of operations and prospects may have changed since such date. Other than as required under the federal securities laws, we undertake no obligation to publicly update or revise such information, whether as a result of new information, future events or any other reason.

This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any of our securities other than the securities covered hereby, nor does this prospectus constitute an offer to sell or the solicitation of an offer to buy any securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about, and to observe, any restrictions as to the offering and the distribution of this prospectus applicable to those jurisdictions.

GLOSSARY

The items below are abbreviations and definitions of certain terms used in this prospectus, certain of which are commonly used in the pharmaceutical and biotechnology industry.

Unless the context requires otherwise, references to the “Company,” “we,” “us,” “our,” “180 Life,” “180LS” and “180 Life Sciences Corp.” refer specifically to 180 Life Sciences Corp. and its consolidated subsidiaries. References to “KBL” refer to the Company prior to the Closing (as defined below).

- “180” means 180 Life Corp. (f/k/a 180 Life Sciences Corp. prior to the Closing).
- “180 LP” means 180 Therapeutics L.P.
- “180 Parties” means 180 and the 180 Subsidiaries.
- “180 Subsidiaries” means Katexco, CBR Pharma and 180 LP.
- “ACA” means the Patient Protection and Affordable Care Act, often shortened to the Affordable Care Act, nicknamed Obamacare, which is a U.S. federal statute which provides numerous rights and protections that make health coverage fairer and easier to understand, along with subsidies (through “premium tax credits” and “cost-sharing reductions”) to make it more affordable. The law also expands the Medicaid program to cover more people with low incomes.
- “Alpha Settlement Agreement” means that certain Mutual Release and Settlement Agreement dated as of July 31, 2021, by and between us and Alpha Capital Anstalt.
- “Alpha Settlement Warrants” means the warrants to purchase up to 25,000 shares of our common stock that were issued to Alpha Capital Anstalt pursuant to the Alpha Settlement Agreement, have an initial exercise price of \$7.07 per share of common stock (subject to adjustment as set forth therein, but not as a result of subsequent issuances of equity or equity-linked securities at prices below the then-effective exercise price) and are exercisable on or prior to August 2, 2024.
- “Analgesics” are a class of medications designed specifically to relieve pain.
- “ANDA” means an abbreviated new drug application under section 505(j) of the FDC Act which contains data which is submitted to the FDA for the review and potential approval of a generic drug product.
- “Anti-TNF” is a pharmaceutical drug that suppresses the physiologic response to TNF.
- “August PIPE Warrants” means the warrants to purchase shares of our common stock that were issued pursuant to the August SPA.
- “August SPA” means that certain Securities Purchase Agreement dated as of August 19, 2021 between our company and the purchasers identified on the signature pages thereto.
- “BLA” means the FDA’s Biologics License Application, which is the vehicle in the United States through which biologic sponsors formally propose that the FDA approve a new biologic for sale and marketing.
- “Bridge Notes” means the promissory notes in the aggregate principal amount of approximately \$432,384 that were originally issued to such selling stockholders by 180 Life Corp., which entity became a wholly-owned subsidiary of our company as a result of the Closing, in December 2019 and January 2020.
- “Business Combination” means the transactions contemplated by the Business Combination Agreement.
- “Business Combination Agreement” means the Business Combination Agreement, dated as of July 25, 2019 (as amended), by and among us, Merger Sub, the 180 Parties and Lawrence Pemble, as the representative of the stockholders of the 180 Parties, pursuant to which Merger Sub merged with and into 180 with 180 surviving the merger and continuing as our wholly-owned subsidiary.
- “Cannabinoids” mean compounds found in *cannabis sativa L.*, and when used throughout this prospectus, refer to compounds found in the hemp plant which do not contain THC.

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- “CBD” or cannabidiol is an active ingredient in cannabis derived from the hemp plant. CBD is a non-psychoactive oxidative degradation product of THC.
- “CBG” or cannabigerol is one of the compounds found in the cannabis plant.
- “CBR Pharma” means CannBioRex Pharmaceuticals Corp.
- “CCMO” means *De Centrale Commissie Mensgebonden Onderzoek*, or the Central Committee on Research Involving Human Subjects, the organizational responsible for reviewing and regulating medical research involving human subjects in The Netherlands.
- “CHMP” means the Committee for Medicinal Products for Human Use, formerly known as Committee for Proprietary Medicinal Products, which is the European Medicines Agency’s committee responsible for elaborating the agency’s opinions on all issues regarding medicinal products for human use.
- “Closing” means the consummation of the Business Combination, which occurred on November 6, 2020.
- “CMS” means the Centers for Medicare & Medicaid Services, which is a federal agency within the HHS that administers the Medicare program and works in partnership with state governments to administer Medicaid.
- “Convertible Sponsor Note” means the unsecured convertible promissory note in the aggregate principal amount of \$795,000 that we issued to our sponsor in September 2020.
- “Corticosteroids” are a class of drug that lowers inflammation in the body.
- “CRO” means a contract research organization which is a company that provides support to the pharmaceutical, biotechnology, and medical device industries in the form of research services outsourced on a contract basis.
- “CSA” means the Controlled Substances Act, the statute establishing federal U.S. drug policy under which the manufacture, importation, possession, use, and distribution of certain substances is regulated.
- “CTA” means a Clinical Trial Application, which is a submission to the competent National Regulatory Authority(ies) for obtaining authorization to conduct a clinical trial in a specific country. It is an application with necessary information on investigational medicinal products. The purpose of a CTA is to provide all the important details about the clinical trial to the health authorities in order to obtain the product approval.
- “DEA” means the Drug Enforcement Administration, a United States federal law enforcement agency under the United States Department of Justice, tasked with combating drug trafficking and distribution within the United States.
- “EarlyBird Settlement Agreement” means that certain Settlement and Mutual Release Agreement dated as of May 4, 2021, by and between us and EarlyBirdCapital, Inc.
- “EMA” means the European Medicines Agency, an agency of the European Union in charge of the evaluation and supervision of medicinal products.
- “ETASU” means elements to assure safe use, which are one of several strategies that may be required in order to mitigate risk of medication use pursuant to a REMS.
- “EU” means the European Union.
- “Exchange Act” means the Securities Exchange Act of 1934, as amended.
- “Exchangeable Shares” means the exchangeable shares issued concurrently with the closing of the Reorganization (as defined in the Business Combination Agreement) by (i) Katexco Purchaseco ULC, a Canadian subsidiary of 180, to certain Canadian former shareholders of Katexco; and (ii) CannBioRex Purchaseco ULC, a Canadian subsidiary of 180, to certain Canadian former shareholders of CBR Pharma, which were exchangeable for common stock of 180 prior to the Effective Time (as defined in the Business Combination Agreement) and which became exchangeable into shares of our common stock following the Effective Time.

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- “FDA” means the Food and Drug Administration, which is a federal agency of the United States Department of Health and Human Services. The FDA is responsible for protecting the public health by ensuring the safety, efficacy, and security of human and veterinary drugs, biological products, and medical devices; and by ensuring the safety of U.S. food supply, cosmetics, and products that emit radiation.
- “FDC Act” means the Food, Drug and Cosmetic Act, a set of U.S. laws passed by Congress in 1938 which, among other things, provides statutory authority for the FDA to regulate drugs and medical devices.
- “February PIPE Warrants” means the warrants to purchase shares of our common stock that were issued pursuant to the February SPA.
- “February SPA” means that certain Securities Purchase Agreement dated as of February 19, 2021, between our company and the purchasers identified on the signature pages thereto.
- “founder shares” means the shares of our common stock initially purchased by our Sponsor in a private placement prior to our initial public offering.
- “GCP” means good clinical practice, which is an international quality standard, which governments can then transpose into regulations for clinical trials involving human subjects. GCP follows the International Council on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) and enforces tight guidelines on ethical aspects of clinical research.
- “GLP” means good laboratory practice, which is a quality system concerned with the organization process and the conditions under which non-clinical health and environmental safety studies are planned, performed, monitored, recorded, archived and reported.
- “GMP” means good manufacturing practice regulations promulgated by the FDA under the authority of the FDC Act. These regulations, which have the force of law, require that manufacturers, processors and packagers of drugs, medical devices, some food and blood take proactive steps to ensure that their products are safe, pure and effective.
- “HHS” means the U.S. Department of Health and Human Services also known as the Health Department, a cabinet-level department of the U.S. federal government with the goal of protecting the health of all Americans and providing essential human services.
- “HIPAA” means the Health Insurance Portability and Accountability Act of 1996, which has the goal of making it easier for people to keep health insurance, protect the confidentiality and security of healthcare information and help the healthcare industry control administrative costs.
- “HMGB1” means High Mobility Group Box 1, a protein that, in humans, is encoded by the HMGB1 gene. Activated macrophages and monocytes secrete HMGB1 as a cytokine mediator of inflammation.
- “IBD” means inflammatory bowel disease, an umbrella term used to describe disorders that involve chronic inflammation of the digestive tract.
- “IND” means investigational new drug application. Before a clinical trial can be started, the research must be approved. An investigational new drug or IND application or request must be filed with the FDA when researchers want to study a drug in humans. The IND application must contain certain information, such as: results from studies so that the FDA can decide whether the treatment is safe for testing in people; how the drug is made, who makes it, what’s in it, how stable it is, and more; detailed outlines for the planned clinical studies, called study protocols, are reviewed to see if people might be exposed to needless risks; and details about the clinical trial team to see if they have the knowledge and skill to run clinical trials.
- “Individually identifiable health information” is defined by HIPPA to mean information that is a subset of health information, including demographic information collected from an individual, and: (1) is created or received by a health care provider, health plan, employer, or health care clearinghouse; and (2) relates to the past, present, or future physical or mental health or condition of an individual; the provision of

health care to an individual; or the past, present, or future payment for the provision of health care to an individual; and (a) that identifies the individual; or (b) with respect to which there is reasonable basis to believe the information can be used to identify the individual.

- “IPO” means the sale of the units in our initial public offering, which closed on June 7, 2017.
- “IRB” means an Institutional Review Board, which is group that has been formally designated to review and monitor biomedical research involving human subjects. In accordance with FDA regulations, an IRB has the authority to approve, require modifications in (to secure approval), or disapprove research. This group review serves an important role in the protection of the rights and welfare of human research subjects.
- “June SPA” means that certain Securities Purchase Agreement dated as of June 12, 2020 between our company, the purchasers identified on the signature pages thereto, and Dominion Capital LLC as purchaser agent.
- “Katexco” means Katexco Pharmaceuticals Corp.
- “Medicaid” is a federal and state health insurance program in the United States that helps with medical costs for some people with limited income and resources. Medicaid also offers benefits not normally covered by Medicare, including nursing home care and personal care services.
- “Medicare” is a national health insurance program in the United States. It primarily provides health insurance for Americans aged 65 and older, but also for some younger people with disability status as determined by the Social Security Administration, as well as people with end stage renal disease and amyotrophic lateral sclerosis (ALS or Lou Gehrig’s disease).
- “Merger Sub” means KBL Merger Sub, Inc.
- “MHRA” means The Medicines and Healthcare products Regulatory Agency, an executive agency of the Department of Health and Social Care in the United Kingdom which is responsible for ensuring that medicines and medical devices work and are acceptably safe.
- “MRP” means a Mutual Recognition Procedure, a market authorization which is granted in one EU member state and is recognized in other EU member states.
- “NDA” or “Full NDA” means the FDA’s New Drug Application submitted under section 505(b) (1) of the FDC Act, which is a regulatory vehicle in the United States through which drug sponsors formally propose that the FDA approve a pharmaceutical for sale and marketing, that requires the applicant to conduct all investigations necessary for approval.
- “New Chemical Entity” or “NCE” is a drug that does not contain any active moiety that has been approved by FDA with any other application.
- “NHR” means The National Institute for Health Research is a United Kingdom government agency which funds research into health and care, and is the largest national clinical research funder in Europe.
- “October Selling Stockholders” means the selling stockholders identified in our Registration Statement on Form S-1 (File No. 333-249539) filed on October 19, 2020.
- “Orphan Drug Designation” means a pharmaceutical agent developed to treat medical conditions which, because they are so rare, would not be profitable to produce without government assistance.
- “Phase 1” trials are typically where the drug is initially introduced into healthy human subjects and tested for safety, dosage tolerance, absorption, metabolism, distribution and elimination. In the case of some drug candidates for severe or life-threatening diseases, such as cancer, especially when the drug candidate may be inherently too toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients.

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- “Phase 2” trials are generally when clinical trials are initiated in a limited patient population intended to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the drug candidate for specific targeted diseases and to determine dosage tolerance and optimal dosage. Phase 2 trials are sometimes further divided into: Phase 2a and Phase 2b trials — Phase 2a is focused specifically on dosing requirements. A small number of patients are administered the drug in different quantities to evaluate whether there is as a dose-response relationship, which is an increase in response that correlates with increasing increments of dose. In addition, the optimal frequency of dose is also explored; and Phase 2b trials are designed specifically to rigorously test the efficacy of the drug in terms of how successful it is in treating, preventing or diagnosing a disease.
- “Phase 3” trials are when clinical trials are undertaken to further evaluate dosage, clinical efficacy and safety in an expanded patient population at geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk-benefit ratio of the drug candidate and provide an adequate basis for regulatory approval and product labeling.
- “Phase 4” trials are studies required to be conducted as a condition of approval in order to gather additional information on the drug’s effect in various populations and any side effects associated with long-term use.
- “PHS Act” means the Public Health Service Act, a set of U.S. laws passed by Congress in 1944 which, among other things, provides statutory authority for FDA to regulate biological products.
- “Physiotherapy” is treatment to restore, maintain, and make the most of a patient’s mobility, function and well-being.
- “POCD” means post-operative cognitive dysfunction/delirium.
- “private placement units” are the units issued to our Sponsor and the underwriters in a private placement simultaneously with the closing of our IPO.
- “Private Placement Warrants” are the warrants included in the private placement units issued to our Sponsor and the underwriters in a private placement simultaneously with the closing of our IPO.
- “Public Warrants” are the warrants to purchase shares of our common stock sold as part of the units in our IPO (whether they were purchased in such offering or thereafter in the open market).
- “RA” means rheumatoid arthritis.
- “REMS” means a risk evaluation and mitigation strategy which is a drug safety program that the FDA can require for certain medications with serious safety concerns to help ensure the benefits of the medication outweigh its risks.
- “SCA” means Synthetic Cannabidiol Analogs, which are synthetic pharmaceutical grade molecules close or distant analogs of non-psychoactive cannabinoids such as CBD for the treatment of inflammatory diseases and pain.
- “SEC” or the “Commission” means the United States Securities and Exchange Commission.
- “Section 505(b)(2) NDA” or “section 505(b)(2) application” means a New Drug Application submitted under section 505(b)(2) of the FDC Act, which is a regulatory vehicle in the United States through which drug sponsors formally propose that the FDA approve a pharmaceutical for sale and marketing, that allows the applicant to rely on previous investigations conducted by others and for which the sponsor does not have a right of reference or use from the person by or for whom the investigations were conducted.
- “Securities Act” means the Securities Act of 1933, as amended.
- “September SPA” means that certain Securities Purchase Agreement dated as of September 8, 2020 between our company and the purchasers identified on the signature pages thereto.
- “Series A Stock” means the shares of our Series A Convertible Preferred Stock that were issued pursuant to the June SPA.

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- “**Sponsor**” means the applicant or drug sponsor, which is the person or entity who assumes responsibility for the marketing of a new drug, including responsibility for compliance with applicable provisions of the FSC Act and related regulations. *Note that as used herein the term “Sponsor” may also refer to KBL IV Sponsor LLC, the Sponsor of our IPO, depending on the context in which such term is used.*
- “**THC**” means tetrahydrocannabinol, which is the principal psychoactive constituent of cannabis.
- “**TNF**” means tumor necrosis factor, which is part of the body’s response to inflammation.

Our logo and some of our trademarks and tradenames are used in this prospectus. This prospectus also includes trademarks, tradenames and service marks that are the property of others. Solely for convenience, trademarks, tradenames and service marks referred to in this prospectus may appear without the[®], [™] and SM symbols. References to our trademarks, tradenames and service marks are not intended to indicate in any way that we will not assert to the fullest extent under applicable law our rights or the rights of the applicable licensors if any, nor that respective owners to other intellectual property rights will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend the use or display of other companies’ trademarks and trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

The market data and certain other statistical information used throughout this prospectus are based on independent industry publications, reports by market research firms or other independent sources that we believe to be reliable sources. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. We are responsible for all of the disclosures contained in this prospectus, and we believe these industry publications and third-party research, surveys and studies are reliable. While we are not aware of any misstatements regarding any third-party information presented in this prospectus, their estimates, in particular, as they relate to projections, involve numerous assumptions, are subject to risks and uncertainties, and are subject to change based on various factors, including those discussed under the section entitled “Risk Factors” beginning on page 5 of this prospectus. These and other factors could cause our future performance to differ materially from our assumptions and estimates. Some market and other data included herein, as well as the data of competitors as they relate to 180 Life Sciences Corp., is also based on our good faith estimates.

SUMMARY

The following summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information that you should consider before making an investment decision with respect to our securities. You should read this entire prospectus carefully, especially the “Risk Factors” section beginning on page 5 of this prospectus, the financial statements (and related notes thereto) and other financial data contained in this prospectus and the related “Management’s Discussion and Analysis of Financial Condition and Results of Operations” of our company before making an investment decision with respect to our securities. Please see the section titled, “Where You Can Find More Information,” beginning on page 145 of this prospectus.

Our Company

We are a clinical stage biotechnology company headquartered in Palo Alto, California, focused on the development of therapeutics for unmet medical needs in chronic pain, inflammation and fibrosis by employing innovative research, and, where appropriate, combination therapy. We were founded by Prof. Sir Marc Feldmann, Prof. Lawrence Steinman, Prof. Raphael Mechoulam, Dr. Jonathan Rothbard and Prof. Jagdeep Nanchahal, all of whom are scientists in the biotechnology and pharmaceutical sectors with significant experience, and previous success, in drug discovery. These scientists are from the University of Oxford (“Oxford”), Stanford University and Hebrew University of Jerusalem (the “Hebrew University”), and our management team has extensive experience in financing and growing early-stage healthcare companies.

We have three different product development platforms that are focused on different diseases or medical conditions, and that target different factors, molecules or proteins, as follows:

- Anti-TNF platform: focusing on fibrosis and anti-tumor necrosis factor (“anti-TNF”);
- SCAs platform: focusing on drugs which are synthetic cannabidiol (“CBD”) or cannabigerol (“CBG”) analogs (“SCAs”); and
- $\alpha 7nAChR$ platform: focusing on alpha 7 nicotinic acetylcholine receptor (“ $\alpha 7nAChR$ ”).

Our lead product candidate recently completed a successful Phase 2b clinical trial in the United Kingdom and the Netherlands for early-stage Dupuytren’s Contracture, a condition that affects the development of fibrous connective tissue in the palm of the hand. On April 29, 2022, final results from the trial were published in *The Lancet Rheumatology*. The study demonstrated that the primary end point of nodule hardness and the secondary end point of nodule size on ultrasound scan were met with statistically significant differences. There were no treatment-related serious adverse events in the trial. Currently, we are conducting clinical trials only for certain indications under the anti-TNF platform. Of our three product development platforms, only one, the SCAs platform, involves products that are related to CBD (and not to cannabis or THC), and no clinical trials for any indications or products under the SCAs platform are currently being conducted in the United States or abroad. We are currently undertaking preclinical research and development activities for the SCA and the $\alpha 7nAChR$ platforms.

Corporate Information

We were originally formed as KBL Merger Corp. IV, a blank check company organized under the laws of the State of Delaware on September 7, 2016, which consummated its initial public offering on June 7, 2017. On November 6, 2020, we consummated the Business Combination and, in connection therewith, changed our name to 180 Life Sciences Corp.

Our principal executive offices are located at 3000 El Camino Real, Bldg. 4, Suite 200, Palo Alto, CA 94306, and our telephone number is (678) 507-0669. We maintain a website at www.180lifesciences.com. We have not incorporated by reference into this prospectus the information in, or that can be accessed through, our website, and you should not consider it to be a part of this prospectus.

THE OFFERING

Common Stock offered by the Selling Stockholders:

We are registering the resale by the selling stockholders named in this prospectus, or their permitted transferees, of an aggregate of up to an aggregate of 4,770,008 shares of common stock by the selling stockholders identified in this prospectus. The shares of common stock being registered for resale hereunder consist of: (i) 46,203 Original Shares; (ii) 33,963 shares issuable upon the exercise of the Original Warrants; (iii) 2,259,000 shares issuable upon the exercise of the February PIPE Warrants; (iv) 151,633 Bridge Note Shares; (v) 2,175,000 shares issuable upon the exercise of the August PIPE Warrants; (vi) 5,551 Alpha Shares; (vii) 25,000 shares issuable upon the exercise of the Alpha Settlement Warrants; (viii) 10,000 EarlyBird Shares; and (ix) 63,658 shares issuable upon the exercise the AGP Warrants.

In addition, we are registering the offer and sale of up to 5,750,000 shares of common stock that are issuable by us upon the exercise of the Public Warrants.

Common stock outstanding prior to this offering:

34,087,244 shares as of May 4, 2022.

Use of proceeds:

The selling stockholders will receive the proceeds from the sale of the shares of common stock offered hereby. We will not receive any proceeds from the sale of the shares of common stock. However, if all of the Original Warrants, the February PIPE Warrants, the August PIPE Warrants, the Alpha Settlement Warrants, the AGP Warrants and the Public Warrants that are covered by this prospectus are exercised for cash, we may receive proceeds of up to approximately \$390,575, \$11.3 million, \$16.3 million, \$176,750, \$336,114 and \$66.1 million, respectively.

Risk Factors:

The purchase of our securities involves a high degree of risk. See “Risk Factors” beginning on page 5 and other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our securities.

Nasdaq symbols:

Our common stock and Public Warrants are listed on Nasdaq under the symbols “ATNF” and “ATNFW”, respectively.

The number of shares of our common stock outstanding is based on 34,087,244 shares outstanding as of May 4, 2022, and excludes, as of such date:

- 5,275 shares of common stock issuable upon the conversion of the Exchangeable Shares;
- 2,741,000 shares of common stock issuable upon the exercise of outstanding stock options; and
- 5,750,000 shares of common stock issuable upon the exercise of outstanding Public Warrants exercisable at an exercise price of \$11.50 per share, 251,250 shares of common stock issuable upon the exercise of outstanding Private Placement Warrants exercisable at an exercise price of \$11.50 per share, 2,564,000 shares of common stock issuable upon the exercise of February PIPE Warrants at an exercise price of \$5.00 per share, 25,000 shares of common stock issuable upon the exercise of the Alpha Settlement Warrants at an exercise price of \$7.07 per share, 63,658 shares of common stock issuable upon the exercise of the AGP Warrants at an exercise price of \$5.28 per share, and 2,500,000 shares of common stock issuable upon the exercise of the August PIPE Warrants at an exercise price of \$7.50 per share.

Summary Risk Factors

We face risks and uncertainties related to our business, many of which are beyond our control. In particular, risks associated with our business include:

- Our current cash balance is only sufficient to fund our planned business operations through the third quarter of 2022. If additional capital is not available, we may not be able to pursue our planned business operations, may be forced to change our planned business operations, or may take other actions that could adversely impact our stockholders.
- We will need additional capital which may not be available on commercially acceptable terms, if at all, which raises questions about our ability to continue as a going concern.
- We have significant and increasing liquidity needs and may require additional funding.
- We are dependent on the success of our future product candidates, some of which may not receive regulatory approval or be successfully commercialized.
- We have recently grown our business and will need to increase the size and complexity of our organization in the future, and we may experience difficulties in managing our growth and executing our growth strategy.
- We face liability for previously restated financial statements.
- Our failure to appropriately account for complex financial instruments may result in the requirement that we restate our financial statements.
- Operating results may vary significantly in future periods.
- We depend on our key personnel and our ability to attract and retain employees.
- Problems in our manufacturing process for our new chemical entities, failure to comply with manufacturing regulations or unexpected increases in our manufacturing costs could harm our business, results of operations and financial condition.
- Clinical trials are expensive, time-consuming, uncertain and susceptible to change, delay or termination. The results of clinical trials are open to differing interpretations.
- We may find it difficult to enroll patients in our clinical trials, which could delay or prevent clinical trials of our product candidates.
- Any failure by our company to comply with existing regulations could harm our reputation and operating results.
- We are subject to federal, state and foreign healthcare laws and regulations and implementation of or changes to such healthcare laws and regulations could adversely affect our business and results of operations.
- Information obtained from expanded access studies may not reliably predict the efficacy of our future product candidates in company-sponsored clinical trials and may lead to adverse events that could limit approval.
- There is a high rate of failure for drug candidates proceeding through clinical trials.
- If we are found in violation of federal or state “fraud and abuse” laws or similar laws in other jurisdictions, we may be required to pay a penalty and/or be suspended from participation in federal or state health care programs, which may adversely affect our business, financial condition and results of operations.
- Serious adverse events or other safety risks could require us to abandon development and preclude, delay or limit approval of our future product candidates, limit the scope of any approved label or market acceptance, or cause the recall or loss of marketing approval of products that are already marketed.

- Our existing collaboration arrangements and any that we may enter into in the future may not be successful, which could adversely affect our ability to develop and commercialize our future product candidates.
- We may not be able to adequately protect our future product candidates or our proprietary technology in the marketplace.
- Controlled substance legislation differs between countries, and legislation in certain countries may restrict or limit our ability to sell our future product candidates.
- The product candidates that we are developing may be subject to U.S. controlled substance laws and regulations and failure to comply with these laws and regulations, or the cost of compliance with these laws and regulations, may adversely affect the results of our business operations, both during clinical development and post approval, and our financial condition.
- Changes in laws or regulations, or a failure to comply with any laws and regulations, may adversely affect our business, investments and results of operations.
- Certain of our executive officers and directors are now, and all of them may in the future become, affiliated with entities engaged in business activities similar to those conducted by us and, accordingly, may have conflicts of interest in determining to which entity a particular business opportunity should be presented.
- The market price of our common stock has been extremely volatile and may continue to be volatile due to numerous circumstances beyond our control.
- Our Certificate of Incorporation provides for indemnification of officers and directors at our expense and limits their liability, which may result in a major cost to us and hurt the interests of our stockholders because corporate resources may be expended for the benefit of officers or directors.
- We incur significant costs to ensure compliance with U.S. and Nasdaq reporting and corporate governance requirements.
- We will continue to incur increased costs as a result of being a reporting company, and given our limited capital resources, such additional costs may have an adverse impact on our profitability.
- The JOBS Act allows us to postpone the date by which we must comply with certain laws and regulations and to reduce the amount of information provided in reports filed with the SEC. We cannot be certain if the reduced disclosure requirements applicable to “emerging growth companies” will make our common stock less attractive to investors.
- Our election not to opt out of the JOBS Act extended accounting transition period may not make our financial statements easily comparable to other companies.

RISK FACTORS

You should carefully consider all of the following risk factors and all the other information contained in this prospectus, including the consolidated financial statements. If any of the following risks occur, our business, financial condition or results of operations may be materially and adversely affected. The risk factors described below are not necessarily exhaustive and you are encouraged to perform your own investigation with respect to us and our business.

Risks Related to Our Business Operations

Our business, financial condition and results of operations are subject to various risks and uncertainties, including those described below. This section discusses factors that, individually or in the aggregate, could cause our actual results to differ materially from expected and historical results. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. It is not possible to predict or identify all such factors. Consequently, the following description of Risk Factors is not a complete discussion of all potential risks or uncertainties applicable to our business.

Our current cash balance is only sufficient to fund our planned business operations through the third quarter of 2022. If additional capital is not available, we may not be able to pursue our planned business operations, may be forced to change our planned business operations, or may take other actions that could adversely impact our stockholders.

We are a clinical stage biotechnology company that currently has no revenue. Thus, our business does not generate the cash necessary to finance our planned business operations. We will require significant additional capital to: (i) develop FDA-approved products and commercialize such products; (ii) fund research and development activities relating to, and obtain regulatory approval for, our product candidates; (iii) protect our intellectual property; (iv) attract and retain highly-qualified personnel; (v) respond effectively to competitive pressures; and (vi) acquire complementary businesses or technologies.

Our future capital needs depend on many factors, including: (i) the scope, duration and expenditures associated with our research, development and commercialization efforts; (ii) continued scientific progress in our programs; (iii) the outcome of potential partnering or licensing transactions, if any; (iv) competing technological developments; (v) our proprietary patent position; and (vi) the regulatory approval process for our products.

We will need to raise substantial additional funds through public or private equity offerings, debt financings or strategic alliances and licensing arrangements to finance our planned business operations. We may not be able to obtain additional financing on terms favorable to us, if at all. General market conditions, as well as the ongoing COVID-19 pandemic, may make it difficult for us to seek financing from the capital markets, and the terms of any financing may adversely affect the holdings or the rights of our stockholders. For example, if we raise additional funds by issuing equity securities, further dilution to our stockholders will result, which may substantially dilute the value of their investment. Any equity financing may also have the effect of reducing the conversion or exercise price of our outstanding convertible or exercisable securities, which could result in the issuance (or potential issuance) of a significant number of additional shares of our common stock. In addition, as a condition to providing additional funds to us, future investors may demand, and may be granted, rights superior to those of existing stockholders. Debt financing, if available, may involve restrictive covenants that could limit our flexibility to conduct future business activities and, in the event of insolvency, could be paid before holders of equity securities received any distribution of our assets. We may be required to relinquish rights to our technologies or product candidates, or grant licenses through alliance, joint venture or agreements on terms that are not favorable to us, in order to raise additional funds. If adequate funds are not available, we may have to delay, reduce or eliminate one or more of our planned activities with respect to our business, or terminate our operations. These actions would likely reduce the market price of our common stock.

We will need additional capital which may not be available on commercially acceptable terms, if at all, which raises questions about our ability to continue as a going concern.

As of December 31, 2021, we had an accumulated deficit of \$68,682,286, net loss amounted to \$20,324,648 and we had a working capital deficit of \$8,498,193. As of March 28, 2022, we had cash on hand of \$6,045,848. The accompanying consolidated financial statements have been prepared assuming we will continue as a going concern.

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As we are not generating revenues, we need to raise a significant amount of capital in order to pay our debts and cover our operating costs. While we raised money in August 2021, there is no assurance that we will be able to raise additional needed capital or that such capital will be available under favorable terms.

We are subject to all the substantial risks inherent in the development of a new business enterprise within an extremely competitive industry. Due to the absence of a long-standing operating history and the emerging nature of the markets in which we compete, we anticipate operating losses until we can successfully implement our business strategy, which includes all associated revenue streams. We may never ever achieve profitable operations or generate significant revenues.

We believe that in the aggregate, we will require significant additional capital funding to support and expand the research and development and marketing of our products, fund future clinical trials, repay debt obligations, provide capital expenditures for additional equipment and development costs, payment obligations, office space and systems for managing the business, and cover other operating costs until our planned revenue streams from products are fully-implemented and begin to offset our operating costs, if ever.

Since our inception, we have funded our operations with the proceeds from equity and debt financings. We have experienced liquidity issues due to, among other reasons, our limited ability to raise adequate capital on acceptable terms. We have historically relied upon the issuance of equity and promissory notes that are convertible into shares of our common stock to fund our operations and have devoted significant efforts to reduce that exposure. We anticipate that we will need to issue equity to fund our operations and fund our operating expenses for the foreseeable future. If we are unable to achieve operational profitability or we are not successful in securing other forms of financing, we will have to evaluate alternative actions to reduce our operating expenses and conserve cash.

These conditions raise substantial doubt about our ability to continue as a going concern for the next twelve months. The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. Accordingly, the consolidated financial statements do not include any adjustments relating to the recoverability of assets and classification of liabilities that might be necessary should we be unable to continue as a going concern. The consolidated financial statements included herein also include a going concern footnote.

Additionally, wherever possible, our board of directors (our “**Board**”) will attempt to use non-cash consideration to satisfy obligations. In many instances, we believe that the non-cash consideration will consist of shares of our common stock, preferred stock or warrants to purchase shares of our common stock. Our Board has authority, without action or vote of the shareholders, but subject to Nasdaq rules and regulations (which generally require shareholder approval for any transactions which would result in the issuance of more than 20% of our then outstanding shares of common stock or voting rights representing over 20% of our then outstanding shares of stock), to issue all or part of the authorized but unissued shares of common stock, preferred stock or warrants to purchase such shares of common stock. In addition, we may attempt to raise capital by selling shares of our common stock, possibly at a discount to market in the future. These actions will result in dilution of the ownership interests of existing shareholders, may further dilute common stock book value, and that dilution may be material. Such issuances may also serve to enhance existing management’s ability to maintain control of us, because the shares may be issued to parties or entities committed to supporting existing management.

We have significant and increasing liquidity needs and may require additional funding.

Research and development, management and administrative expenses, including legal expenses, and cash used for operations will continue to be significant and may increase substantially in the future in connection with new research and development initiatives, clinical trials, continued product commercialization efforts and the launch of our future product candidates. We will need to raise additional capital to fund our operations, continue to conduct clinical trials to support potential regulatory approval of marketing applications, and to fund commercialization of our future product candidates.

The amount and timing of our future funding requirements will depend on many factors, including, but not limited to:

- the timing of FDA approval, if any, and approvals in international markets of our future product candidates, if at all;

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- the timing and amount of revenue from sales of our products, or revenue from grants or other sources;
- the rate of progress and cost of our clinical trials and other product development programs;
- costs of establishing or outsourcing sales, marketing and distribution capabilities;
- costs and timing of any outsourced growing and commercial manufacturing supply arrangements for our future product candidates;
- costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights associated with our future product candidates;
- the effect of competing technological and market developments;
- personnel, facilities and equipment requirements; and
- the terms and timing of any additional collaborative, licensing, co-promotion or other arrangements that we may establish.

While we expect to fund our future capital requirements from a number of sources, such as cash flow from operations and the proceeds from further public and/or private offerings, we cannot assure you that any of these funding sources will be available to us on favorable terms, or at all. Further, even if we can raise funds from all of the above sources, the amounts raised may not be sufficient to meet our future capital requirements.

We are dependent on the success of our future product candidates, some of which may not receive regulatory approval or be successfully commercialized.

Our success will depend on our ability to successfully develop and commercialize our future product candidates through our development programs, including our product candidate for the treatment of Dupuytren's Contracture and any other product candidates developed through our fibrosis & anti-TNF, CBD derivatives, and $\alpha 7nAChR$ development platforms. We may never be able to develop products which receive regulatory approval in the United States or elsewhere. There can be no assurance that the FDA, EMA, the European Commission or any other regulatory authority will approve these product candidates.

Our ability to successfully commercialize our future product candidates will depend on, among other things, our ability to successfully complete pre-clinical and other non-clinical studies and clinical trials and to receive regulatory approvals from the FDA and similar foreign regulatory authorities. Delays in the regulatory process could have a material adverse effect on our business, results of operations and financial condition.

We have recently grown our business and will need to increase the size and complexity of our organization in the future, and we may experience difficulties in managing our growth and executing our growth strategy.

Our management, personnel and systems currently in place may not be adequate to support our business plan and future growth. We will need to increase our number of full-time equivalent employees in order to conduct Phase 1, 2 and 3 clinical trials of our future products and to establish a commercial organization and commercial infrastructure. As a result of these future activities, the complexity of our business operations is expected to substantially increase. We will need to develop and expand our scientific, manufacturing, sales and marketing, managerial, compliance, operational, financial and other resources to support our planned research, development, manufacturing and commercialization activities.

Our need to effectively manage our operations, growth and various projects requires that we:

- continue to improve our operational, financial, management and regulatory compliance controls and reporting systems and procedures;
- attract and retain sufficient numbers of talented employees;
- manage our commercialization activities effectively and in a cost-effective manner (currently trial and development for our clinical trials is very cost effective); and
- manage our development efforts effectively while carrying out our contractual obligations to contractors and other third parties.

We have utilized and continue to utilize the services of part-time outside consultants and contractors to perform a number of tasks for our company, including tasks related to compliance programs, clinical trial management, regulatory affairs, formulation development and other drug development functions. Our growth strategy may entail expanding our use of consultants and contractors to implement these and other tasks going forward. If we are not able to effectively expand our organization by hiring new employees and expanding our use of consultants and contractors, we may be unable to successfully implement the tasks necessary to effectively execute on our planned research, development, manufacturing and commercialization activities and, accordingly, may not achieve our research, development and commercialization goals.

We face liability for previously restated financial statements.

We filed a Current Report on Form 8-K on December 31, 2020 and another Current Report on Form 8-K on February 3, 2021, where we announced that due to matters we discovered which related to KBL, prior to the Business Combination, certain historical financial statements were unreliable. As a result, we restated our financial statements for the three and six months ended June 30, 2020 and for the three and nine months ended September 30, 2020, because of errors in such financial statements which were identified after such financial statements were filed with the SEC in our original quarterly reports for the quarters ended June 30, 2020 and September 30, 2020. While we believe these restatements are the result of the actions of, and are the responsibility of, the management of KBL (none of whom remain employed by us), we may be subject to stockholder litigation, rating downgrades, negative publicity and difficulties in attracting and retaining key clients, employees and management personnel as a result of such restatements. Additionally, our securities may trade at prices lower than similarly situated companies which have not had to restate their financial statements.

Our failure to appropriately account for complex financial instruments may result in the requirement that we restate our financial statements.

Certain of our current securities, and future securities we issue may, require complex accounting treatment and analysis. The SEC recently issued a Statement on Accounting and Reporting Considerations for Warrants Issued by Special Purpose Acquisition Companies (“SPACs”) (the “Statement”) on April 12, 2021 and may in the future issue further statements on SPAC accounting. While we believe that our financial statements for the years ended December 31, 2021 and 2020, and for the quarters ended March 31, 2021, June 30, 2021 and September 30, 2021, comply with the guidance issued on April 12, 2021, it is possible that as a result of the information and guidance set forth in the Statement, or in future statements or advisories released by the SEC or an accounting standards board, that we will need to restate our financial statements, and such guidance (including as set forth in the Statement), could have a material adverse effect on our financial condition and results of operations for prior periods which are required to be restated, if any, and/or on future periods moving forward, even if a restatement is not required.

Operating results may vary significantly in future periods.

Our financial results are unpredictable and may fluctuate, for among other reasons, due to commercial sales of our future product candidates; our achievement of product development objectives and milestones; clinical trial enrollment and expenses; research and development expenses; and the timing and nature of contract manufacturing and contract research payments. A high portion of our costs are predetermined on an annual basis, due in part to our significant research and development costs. Thus, small declines in future revenue could disproportionately affect financial results in a quarter.

We depend on our key personnel and our ability to attract and retain employees.

Our future growth and success depend on our ability to recruit, retain, manage and motivate our employees. We are highly dependent on our current management and scientific personnel, including our Chief Executive Officer, Dr. James N. Woody, our Co -Chairmen, Sir Marc Feldmann, Ph.D., and Lawrence Steinman, M.D., our Chief Scientific Officer, Jonathan Rothbard, Ph.D., our Chief Operating Officer/Chief Business Officer, Quan Anh Vu, and our scientists, Raphael Mechoulam and Jagdeep Nanchahal. The inability to hire or retain experienced management personnel could adversely affect our ability to execute our business plan and harm our operating results. Due to the specialized scientific and managerial nature of our business, we rely heavily on our ability to attract and retain qualified

scientific, technical and managerial personnel. The competition for qualified personnel in the biotechnological field is intense and we may be unable to continue to attract and retain qualified personnel necessary for the development of our business or to recruit suitable replacement personnel.

Problems in our manufacturing process for our new chemical entities, failure to comply with manufacturing regulations or unexpected increases in our manufacturing costs could harm our business, results of operations and financial condition.

We are responsible for the manufacture and supply of our future product candidates in the CBD derivatives and $\alpha 7nAChR$ programs for commercial use and for use in clinical trials. The manufacturing of our future product candidates necessitates compliance with GMPs and other regulatory requirements in international jurisdictions. Our ability to successfully manufacture our future product candidates will involve manufacture of finished products and labeling and packaging, which includes product information, tamper proof evidence and anti-counterfeit features, under tightly controlled processes and procedures. In addition, we will have to ensure chemical consistency among our batches, including clinical trial batches and, if approved, marketing batches. Demonstrating such consistency may require typical manufacturing controls as well as clinical data. We will also have to ensure that our batches conform to complex release specifications. If we are unable to manufacture our future product candidates in accordance with regulatory specifications, or if there are disruptions in our manufacturing process due to damage, loss or otherwise, or failure to pass regulatory inspections of our manufacturing facilities, we may not be able to meet demand or supply sufficient product for use in clinical trials, and this may also harm our ability to commercialize our future product candidates on a timely or cost-competitive basis, if at all.

We may not develop and expand our manufacturing capability in time to meet demand for our product candidates, and the FDA or foreign regulatory authorities may not accept our facilities or those of our contract manufacturers as being suitable for the production of our products and product candidates. Any problems in our manufacturing process could materially adversely affect our business, results of operations and financial condition.

Our memorandum of understanding with Celltrion Healthcare may not result in the parties entering into a definitive agreement.

In September 2021, we entered into a non-binding memorandum of understanding with Celltrion Healthcare, a biopharmaceutical company, for the supply of an anti-TNF biosimilar drug used in our ongoing development of anti-TNF products. The parties have not entered into a definitive agreement regarding such relationship to date, and such definitive agreement may not ultimately be entered into on terms contemplated, if at all. In the event that we are unable to come to mutually agreeable definitive terms with Celltrion Healthcare, we will need to locate an alternative supplier of the anti-TNF biosimilar drug, and we may be unable to find an alternative supplier or such alternative supplier may require less favorable terms than are currently contemplated. Any of the above may materially adversely affect our business, results of operations and financial condition.

We expect to face intense competition from companies with greater resources and experience than we have; and may face competition from competitors seeking to market our products under a Section 505(b) (2) application.

The pharmaceutical industry is highly competitive and subject to rapid change. The industry continues to expand and evolve as an increasing number of competitors and potential competitors enter the market. Many of these competitors and potential competitors have substantially greater financial, technological, managerial and research and development resources and experience than our company. Some of these competitors and potential competitors have more experience than our company in the development of pharmaceutical products, including validation procedures and regulatory matters. In addition, our future product candidates, if successfully developed, will compete with product offerings from large and well-established companies that have greater marketing and sales experience and capabilities than our company or our collaboration partners have. In particular, Insys Therapeutics, Inc. is developing CBD in Infantile Spasms (“IS”), and potentially other indications. Zogenix, Inc. has reported positive data in two Phase 3 trials of low dose fenfluramine in Dravet syndrome and has commenced a Phase 3 trial with this product in Lennox Gastaut Syndrome. Biocodex recently received regulatory approval from the FDA for the drug Stiripentol (Diacomit) for the treatment of Dravet syndrome. Other companies with greater resources than our company may announce similar plans in the future. In addition, there are non-FDA approved CBD preparations being made available from companies in the medical marijuana industry, which might attempt to compete with our future product candidates.

Additionally, competitors may also seek to market versions of our drug products via a section 505(b)(2) application, which is a type of NDA provided in section 505(b)(2) of the FDC Act. A Section 505(b)(2) NDA is in contrast to an NDA under section 505(b)(1) of the FDA Act, which is commonly known as a Full NDA because it requires the applicant to undertake all of the nonclinical and clinical investigations necessary for the approval of the application. In contrast, a Section 505(b)(2) NDA application is one for which one or more of the investigations relied on by the applicant for approval were not conducted by or for the applicant and for which the applicant has not obtained a right of reference or use from the person by or for whom the investigations were conducted. Section 505(b)(2) NDA applications may be submitted for drug products that represent a modification, such as a new indication or new dosage form, of a previously approved drug. Section 505(b)(2) NDA applications may rely on the FDA's previous findings for the safety and effectiveness of the previously approved drug in addition to information obtained by the 505(b)(2) applicant to support the modification of the previously approved drug. Preparing Section 505(b)(2) applications may be less costly and time-consuming than preparing a Full NDA based entirely on new data and information. Section 505(b)(2) applications are subject to the same patent certification procedures as an ANDA.

If we are unable to compete successfully, our commercial opportunities will be reduced and our business, results of operations and financial conditions may be materially harmed.

Our future product candidates, if approved, may be unable to achieve the expected market acceptance and, consequently, limit our ability to generate revenue from new products.

Even when product development is successful and regulatory approval has been obtained, our ability to generate sufficient revenue depends on the acceptance of our products by physicians and patients. We cannot assure you that any of our future product candidates will achieve the expected level of market acceptance and revenue if and when they obtain the requisite regulatory approvals. The market acceptance of any product depends on a number of factors, including the indication statement, warnings required by regulatory authorities in the product label and new competing products. Market acceptance can also be influenced by continued demonstration of efficacy and safety in commercial use, physicians' willingness to prescribe the product, reimbursement from third-party payors such as government health care programs and private third-party payors, the price of the product, the nature of any post-approval risk management activities mandated by regulatory authorities, competition, and marketing and distribution support. Further, our U.S. distribution depends on the adequate performance of a reimbursement support hub and contracted specialty pharmacies in a closed-distribution network. An ineffective or inefficient U.S. distribution model at launch may lead to inability to fulfill demand, and consequently a loss of revenue. The success and acceptance of a product in one country may be negatively affected by its activities in another. If we fail to adapt our approach to clinical trials in the U.S. market to meet the needs of EMA or other European regulatory authorities, or to generate the health economics and outcomes research data needed to support pricing and reimbursement negotiations or decisions in Europe, we may have difficulties obtaining marketing authorization for our products from EMA/European Commission and may have difficulties obtaining pricing and reimbursement approval for our products at a national level. Any factors preventing or limiting the market acceptance of our products could have a material adverse effect on our business, results of operations and financial condition.

All of our patents in the Anti-TNF and Fibrosis program are method of use patents, which may result in biosimilar drugs being used without our permission.

The success of our most advanced drug development platform depends on the enforceability of our method of use patents, as there are currently many biosimilar anti-TNF drugs in the market. If we are unable to obtain composition of matter patents, and enforce such patents, our ability to generate revenue from the anti-TNF platform may be significantly limited and competitors may be able to use our research to bring competing drugs to market which would reduce our market share.

The majority of our license agreements provide the licensors and/or counter-parties the right to use and/or exploit such licensed intellectual property.

The majority of our license agreements provide the licensors and/or counter-parties the right to use and/or exploit such licensed intellectual property, and in some cases provide them ownership of such intellectual property, know-how and research results. As such, we may be in competition with parties who we have license agreements with, will likely not have the sole right to monetize, sell or distribute our product candidates and may be subject to restrictions on use and territory of sales. Any or all of the above may have a material adverse effect on our results of operations and cash flows and ultimately the value of our securities.

Interim, topline and preliminary data from our clinical trials may change as more patient data become available, and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we may publicly disclose preliminary, interim or topline data from our preclinical studies and clinical trials, which is based on a preliminary analysis of then-available data, and the results and related findings and conclusions are subject to change as patient enrollment and treatment continues and more patient data become available. For example, any positive results from our preclinical testing, Phase 1 and Phase 2 clinical trials of our product candidate for any product candidate may not necessarily be predictive of the results from planned or future clinical trials for such product candidates. Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in clinical trials after achieving positive results in pre-clinical and early clinical development, and we cannot be certain that we will not face similar setbacks. These setbacks have been caused by, among other things, pre-clinical findings while clinical trials were underway or safety or efficacy observations in clinical trials, including adverse events. Adverse differences between previous preliminary or interim data and future interim or final data could significantly harm our business prospects. We may also announce topline data following the completion of a preclinical study or clinical trial, which may be subject to change following a more comprehensive review of the data related to the particular study or trial. We also make assumptions, estimations, calculations and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. As a result, the interim, topline or preliminary results that we report may differ from future results of the same studies, or different conclusions or considerations may qualify such results, once additional data has been received and fully evaluated. Preliminary, interim, or topline data also remains subject to audit and verification procedures that may result in the final data being materially different from the data we previously published. As a result, preliminary, interim, and topline data should be viewed with caution until the final data is available.

Further, others, including regulatory agencies, may not accept or agree with our assumptions, estimates, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular program, the approvability or commercialization of the particular product candidate or product and our company in general. In addition, the information we choose to publicly disclose regarding a particular study or clinical trial is based on what is typically extensive information, and you or others may not agree with what we determine to be material or otherwise appropriate information to include in our disclosure. Moreover, our interpretation of clinical data or our conclusions based on the preclinical in vitro and in vivo models may prove inaccurate, as preclinical and clinical data can be susceptible to varying interpretations and analyses, and many companies that believed their product candidates performed satisfactorily in preclinical studies and clinical trials nonetheless failed to obtain FDA approval or a marketing authorization granted by the European Commission.

If we fail to produce positive results in our future clinical trials, the development timeline and regulatory approval and commercialization prospects for such product candidates, and, correspondingly, our business and financial prospects, would be materially adversely affected.

We have limited marketing experience, and we may not be able to successfully commercialize any of our future product candidates, even if they are approved in the future.

Our ability to generate revenues ultimately will depend on our ability to sell our approved products and secure adequate third-party reimbursement. We currently have no experience in marketing and selling our products. The commercial success of our future products depends on a number of factors beyond our control, including the willingness of physicians to prescribe our future products to patients, payors' willingness and ability to pay for our future products, the level of pricing achieved, patients' response to our future products, and the ability of our future marketing partners to generate sales. There can be no guarantee that we will be able to establish or maintain the personnel, systems, arrangements and capabilities necessary to successfully commercialize our future products or any product candidate approved by the FDA or other regulatory authority in the future. If we fail to establish or maintain successful marketing, sales and reimbursement capabilities or fail to enter into successful marketing arrangements with third parties, our product revenues may suffer.

If the price for any of our future approved products decreases or if governmental and other third-party payors do not provide coverage and adequate reimbursement levels, our revenue and prospects for profitability will suffer.

Patients who are prescribed medicine for the treatment of their conditions generally rely on third-party payors to reimburse all or part of the costs associated with their prescription drugs. Reimbursement systems in international markets vary significantly by country and by region, and reimbursement approvals generally must be obtained on a country-by-country basis. Coverage and adequate reimbursement from governmental healthcare programs, such as Medicare and Medicaid, and commercial payors is critical to new product acceptance. Coverage decisions may depend upon clinical and economic standards that disfavor new drug products when more established or lower cost therapeutic alternatives are already available or subsequently become available. Even if we obtain coverage for our future product candidates, the resulting reimbursement payment rates may require co-payments that patients find unacceptably high. Patients may not use our future product candidates if coverage is not provided or reimbursement is inadequate to cover a significant portion of a patient's cost.

In addition, the market for our future product candidates in the United States will depend significantly on access to third-party payors' drug formularies, or lists of medications for which third-party payors provide coverage and reimbursement. The industry competition to be included in such formularies often leads to downward pricing pressures on pharmaceutical companies. Also, third-party payors may refuse to include a particular branded drug in their formularies or otherwise restrict patient access to a branded drug when a less costly generic equivalent or other alternative is available.

Third-party payors, whether foreign or domestic, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. The current environment is putting pressure on companies to price products below what they may feel is appropriate. Our future revenues and overall success could be negatively impacted if we sell future product candidates at less than an optimized price. In addition, in the United States, no uniform policy of coverage and reimbursement for drug products exists among third-party payors. Therefore, coverage and reimbursement for our future product candidates may differ significantly from payor to payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our future product candidates to each payor separately, with no assurance that coverage will be obtained. If we are unable to obtain coverage of, and adequate payment levels for, our future product candidates, physicians may limit how much or under what circumstances they will prescribe or administer them and patients may decline to purchase them. This could affect our ability to successfully commercialize our product candidates, and thereby adversely impact our profitability, results of operations, financial condition and future success.

In addition, where we have chosen to collaborate with a third party on product candidate development and commercialization, our partner may elect to reduce the price of our products to increase the likelihood of obtaining reimbursement approvals. In many countries, products cannot be commercially launched until reimbursement is approved and the negotiation process in some countries can exceed 12 months. In addition, pricing and reimbursement decisions in certain countries can be affected by decisions made in other countries, which can lead to mandatory price reductions and/or additional reimbursement restrictions across a number of other countries, which may adversely affect sales and profitability. In the event that countries impose prices that are not sufficient to allow us or our partners to generate a profit, our partners may refuse to launch the product in such countries or withdraw the product from the market, which would adversely affect sales and profitability.

Business interruptions could delay us in the process of developing our future product candidates and could disrupt our product sales.

Loss of our future manufacturing facilities, stored inventory or laboratory facilities through fire, theft or other causes, could have an adverse effect on our ability to meet demand for our future product candidates or to continue product development activities and to conduct our business. Failure to supply our partners with commercial products may lead to adverse consequences, including the right of partners to assume responsibility for product supply. Even if we obtain insurance coverage to compensate us for such business interruptions, such coverage may prove insufficient to fully compensate us for the damage to our business resulting from any significant property or casualty loss to our inventory.

If product liability lawsuits are successfully brought against us, we will incur substantial liabilities and may be required to limit the commercialization of our future product candidates.

Although we have never had any product liability claims or lawsuits brought against us, we face potential product liability exposure related to the testing of our future product candidates in human clinical trials, and we will face exposure to claims in jurisdictions where we market and distribute in the future. We may face exposure to claims by an even greater number of persons when we begin marketing and distributing our products commercially in the United States and elsewhere. In the future, an individual may bring a liability claim against us alleging that one of our future product candidates caused an injury. While we continue to take what we believe are appropriate precautions, we may be unable to avoid significant liability if any product liability lawsuit is brought against us. Large judgments have been awarded in class action or individual lawsuits based on drugs that had unanticipated side effects. Although we have purchased insurance to cover product liability lawsuits, if we cannot successfully defend our company against product liability claims, or if such insurance coverage is inadequate, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in decreased demand for our products, reputational damage, withdrawal of clinical trial participation participants, litigation costs, product recall costs, monetary awards, increased costs for liability insurance, lost revenues and business interruption.

Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and legal requirements.

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with FDA, SEC or Office of Inspector General regulations, or regulations of any other applicable regulatory authority, failure to provide accurate information to the FDA or the SEC, comply with applicable manufacturing standards, other federal, state or foreign laws and regulations, report information or data accurately or disclose unauthorized activities. Employee misconduct could also involve the improper use of information, including information obtained in the course of clinical trials, or illegal appropriation of drug product, which could result in government investigations and serious harm to our reputation. Despite our adoption of a Code of Ethics, employee misconduct is not always possible to identify and deter. The precautions we take to detect and prevent these prohibited activities may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against our company, and we are not successful in defending our company or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or other sanctions.

We are subject to the U.S. Foreign Corrupt Practices Act and other anti-corruption laws, as well as export control laws, customs laws, sanctions laws and other laws governing our operations. If we fail to comply with these laws, we could be subject to civil or criminal penalties, other remedial measures, and legal expenses, which could adversely affect our business, results of operations and financial condition.

Our operations are subject to anti-corruption laws, including the U.S. Foreign Corrupt Practices Act (“FCPA”), and other anti-corruption laws that apply in countries in which we do business. The FCPA and these other laws generally prohibit our company and our employees and intermediaries from bribing, being bribed or making other prohibited payments to government officials or other persons to obtain or retain business or gain some other business advantage. We and our commercial partners operate in a number of jurisdictions that pose a high risk of potential FCPA violations, and we participate in collaborations and relationships with third parties whose actions could potentially subject us to liability under the FCPA or local anti-corruption laws. In addition, we cannot predict the nature, scope or effect of future regulatory requirements to which our international operations might be subject or the manner in which existing laws might be administered or interpreted.

We are also subject to other laws and regulations governing our international operations, including regulations administered by the governments of the United States, Canada, Israel, the United Kingdom and authorities in the European Union, including applicable export control regulations, economic sanctions on countries and persons, customs requirements and currency exchange regulations, collectively referred to as the Trade Control Laws.

However, there is no assurance that we will be completely effective in ensuring our compliance with all applicable anti-corruption laws, including the FCPA or other legal requirements, including Trade Control Laws. If we are not in compliance with the FCPA and other anti-corruption laws or Trade Control Laws, we may be subject to criminal and

civil penalties, disgorgement and other sanctions and remedial measures, and legal expenses, which could have an adverse impact on our business, financial condition, results of operations and liquidity. Likewise, any investigation of any potential violations of the FCPA, other anti-corruption laws by the United States or other authorities could also have an adverse impact on our reputation, business, financial condition and results of operations.

Security breaches, loss of data and other disruptions could compromise sensitive information related to our business, prevent us from accessing critical information or expose us to liability, which could adversely affect our business and our reputation.

In the ordinary course of business, we expect to collect and store sensitive data, including legally protected patient health information, credit card information, personally identifiable information about our employees, intellectual property, and proprietary business information. We expect to manage and maintain our applications and data utilizing on-site systems. These applications and data encompass a wide variety of business-critical information including research and development information, commercial information and business and financial information.

The secure processing, storage, maintenance and transmission of this critical information is vital to our operations and business strategy, and we devote significant resources to protecting such information. Although we take measures to protect sensitive information from unauthorized access or disclosure, our information technology and infrastructure may be vulnerable to attacks by hackers, or viruses, breaches or interruptions due to employee error, malfeasance or other disruptions, or lapses in compliance with privacy and security mandates. Any such virus, breach or interruption could compromise our networks and the information stored there could be accessed by unauthorized parties, publicly disclosed, lost or stolen. We have measures in place that are designed to prevent, and if necessary, to detect and respond to such security incidents and breaches of privacy and security mandates. However, in the future, any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, such as HIPAA and European Union General Data Protection Regulation (“**GDPR**”), government enforcement actions and regulatory penalties. Unauthorized access, loss or dissemination could also disrupt our operations, including our ability to process samples, provide test results, share and monitor safety data, bill payors or patients, provide customer support services, conduct research and development activities, process and prepare company financial information, manage various general and administrative aspects of our business and may damage our reputation, any of which could adversely affect our business, financial condition and results of operations.

In May 2016, the European Union formally adopted the GDPR, which applies to all EU member states and became effective on May 25, 2018 and replaced the European Union Data Protection Directive (Directive 95/46/EC). The regulation introduces stringent new data protection requirements applicable to entities established in the European Union and entities not established in the European Union processing personal data relating to individuals who are in the European Union, where specific conditions are met. The GDPR also introduces substantial fines for breaches of the data protection rules. It may increase our responsibility and liability in relation to personal data that we process and we may be required to put in place additional mechanisms and bear considerable costs for implementing security measures ensuring compliance with the new data protection rules. The GDPR is a complex law and the regulatory guidance is still evolving, including with respect to how the GDPR should be applied in the context of clinical trials or other transactions from which we may gain access to personal data. GDPR increases our costs of compliance and results in greater legal risks.

Our research and development programs and product candidates are in development. As a result, we are unable to predict if or when we will successfully develop or commercialize our product candidates.

Our clinical-stage product candidates as well as our other drug pipeline candidates will require significant further investment and regulatory approvals prior to commercialization. Each of our product candidates will require the selection of suitable patients for our clinical trials and additional clinical development, management of clinical, preclinical and manufacturing activities, obtaining regulatory approval, obtaining manufacturing supply, building of a commercial organization, substantial investment and significant marketing efforts before we generate any revenues from product sales. We are not permitted to market or promote any of our product candidates before we receive regulatory approval from the FDA or comparable foreign regulatory authorities, and we may never receive such regulatory approval for any of our product candidates. By such time, if ever, as we may receive necessary regulatory approvals for our product candidates, the standard of care for the treatment of diseases associated with our product candidates may have evolved such that it would be necessary to modify our plans for full approval and commercial acceptance of our products may be limited by a change in the standard of care.

Even if we obtain the required financing or establish a collaboration to enable us to conduct latestage clinical development of our product candidates and pipeline assets, we cannot be certain that such clinical development would be successful, or that we will obtain regulatory approval or be able to successfully commercialize any of our product candidates and generate revenue. Success in preclinical testing and early clinical trials does not ensure that later clinical trials will be successful, and the clinical trial process may fail to demonstrate that our product candidates are safe and effective for their proposed uses. Any such failure could cause us to abandon further development of any one or more of our product candidates and may delay development of other product candidates. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials. Any delay in, or termination of, our clinical trials will delay and possibly preclude the submission of any NDAs with the FDA and, ultimately, our ability to commercialize our product candidates and generate product revenue.

We have not previously submitted an NDA to the FDA, or similar drug approval filings to comparable foreign authorities, for any product candidate, and we cannot be certain that any of our product candidates will receive regulatory approval. Further, our product candidates may not receive regulatory approval even if they are successful in clinical trials. If we do not receive regulatory approvals for our product candidates, we may not be able to continue our operations. Even if we successfully obtain regulatory approvals to market one or more of our product candidates, our revenues will be dependent, in part, upon our or our collaborators' and future collaborators' ability to obtain regulatory approval for the companion diagnostics to be used with our product candidates, if required, and upon the size of the markets in the territories for which we gain regulatory approval and have commercial rights. If the markets for patient subsets that we are targeting are not as significant as we estimate, we may not generate significant revenues from sales of such products, if approved.

Further, even if any product candidate we develop was to receive marketing approval or be commercialized for use in combination with other existing therapies, we would continue to bear the risks that the FDA or similar foreign regulatory authorities could revoke approval of the therapy used in combination with our product candidate or that safety, efficacy, manufacturing or supply issues could arise with these existing therapies.

The successful commercialization of our product candidates, if approved, will depend on achieving market acceptance and we may not be able to gain sufficient acceptance to generate significant revenue.

Even if our product candidates are successfully developed and receive regulatory approval, they may not gain market acceptance among physicians, patients, healthcare payors such as private insurers or governments and other funding parties and the medical community. The degree of market acceptance for any of our products will depend on a number of factors, including:

- demonstration of the clinical efficacy and safety of our products;
- the prevalence and severity of any adverse side effects;
- limitations or warnings contained in the product's approved labeling;
- cost-effectiveness and availability of acceptable pricing;
- competitive product profile versus alternative treatment methods and the superiority of alternative treatment or therapeutics;
- the effectiveness of marketing and distribution methods and support for the products; and
- the availability of coverage and adequate reimbursement from third-party payors to the extent that our products receive regulatory approval.

Disease indications may be small subsets of a disease that could be parsed into smaller and smaller indications as different subsets of diseases are defined. This increasingly fine characterization of diseases could have negative consequences; including creating an approved indication that is so small as not to have a viable market for us. If future technology allows characterization of a disease in a way that is different from the characterization used for large pivotal studies, it may make those studies invalid or reduce their usefulness, and may require repeating all or a portion of the

studies. Future technology may supply better prognostic ability which could reduce the portion of patients projected to need a new therapy. Even after being cleared by regulatory authorities, a product may later be shown to be unsafe or not to have its purported effect, thereby preventing its widespread use or requiring withdrawal from the market.

We may not be successful in establishing development and commercialization collaborations which could adversely affect, and potentially prohibit, our ability to develop our product candidates.

Developing pharmaceutical products, conducting clinical trials, obtaining regulatory approval, establishing manufacturing capabilities and marketing approved products is expensive, and therefore we may seek to enter into additional collaborations with companies that have more resources and experience in order to continue to develop and commercialize our product candidates. We also may be required due to financial or scientific constraints to enter into additional collaboration agreements to research and/or to develop and commercialize our product candidates. The establishment and realization of such collaborations may not be possible or may be problematic. There can be no assurance that we will be able to establish such additional collaborations on favorable terms, if at all, or that our current or future collaborative arrangements will be successful or maintained for any specific product candidate or indication. If we are unable to reach successful agreements with suitable collaboration partners for the ongoing development and commercialization of our product candidates, we may face increased costs, we may be forced to limit the scope and number of our product candidates we can commercially develop or the territories in which we commercialize such product candidates, and we may be unable to commercialize products or programs for which a suitable collaboration partner cannot be found. If we fail to achieve successful collaborations, our operating results and financial condition will be materially and adversely affected.

In addition, the terms of any collaboration agreements may place restrictions on our activities with respect to other products, including by limiting our ability to grant licenses or develop products with other third parties, or in different indications, diseases or geographical locations, or may place additional obligations on us with respect to development or commercialization of our product candidates. If we fail to comply with or breach any provision of a collaboration agreement, a collaborator may have the right to terminate, in whole or in part, such agreement or to seek damages.

Some of our collaboration and licensing agreements are complex and involve sharing or division of ownership of certain data, know-how and intellectual property rights among the various parties. Accordingly, our collaborators could interpret certain provisions differently than we or our other collaborators which could lead to unexpected or inadvertent disputes with collaborators. In addition, these agreements might make additional collaborations, partnering or mergers and acquisitions difficult. On the other hand, we may face liability and penalties under the GDPR or other applicable data protection laws and regulations in case our counterparties should breach these laws and regulations in processing the personal data that we share with them in performing relevant collaboration and licensing agreements.

There is no assurance that a collaborator who is acquired by a third party would not attempt to change certain contract provisions that could negatively affect our collaboration. The acquiring company may also not accept the terms or assignment of our contracts and may seek to terminate the agreements. Any one of our collaborators could breach covenants, restrictions and/or sub-license agreement provisions leading us into disputes and potential breaches of our agreements with other partners.

We will not be able to successfully commercialize our product candidates without establishing sales and marketing capabilities internally or through collaborators.

We may not be able to find suitable sales and marketing staff and collaborators for all of our product candidates. The development of a marketing and sales capability will require significant expenditures, management resources and time. The cost of establishing such a sales force may exceed any potential product revenue, or our marketing and sales efforts may be unsuccessful. If we are unable to develop an internal marketing and sales capability in a timely fashion, or at all, or if we are unable to enter into a marketing and sales arrangement with a third party on acceptable terms, we may be unable to effectively market and sell approved products, if any, which would prevent us from being able to generate revenue and attain profitability. Further, we may not develop an internal marketing and sales capability if we are unable to successfully develop and seek regulatory approval for our product candidates.

We will rely upon third-party contractors and service providers for the execution of some aspects of our development programs. Failure of these collaborators to provide services of a suitable quality and within acceptable timeframes may cause the delay or failure of our development programs.

We outsource certain functions, tests and services to third parties, partners, medical institutions and collaborators and plan to outsource manufacturing to collaborators and/or contract manufacturers, and we will rely on third parties for quality assurance, clinical monitoring, clinical data management and regulatory expertise. In particular, we rely on our partners to run our clinical trials. There is no assurance that such individuals or organizations will be able to provide the functions, tests, drug supply or services as agreed upon or to acceptable quality standards, and we could suffer significant delays in the development of our products or processes. In particular, certain third party service providers may be unable to comply with their contractual obligations to us due to disruptions caused by the COVID-19 pandemic, including reduced operations or headcount reductions, or otherwise, and in certain cases we may have limited recourse if the non-compliance is due to factors outside of the service provider's control.

The timelines of our clinical trials may be impacted by numerous factors and any delays may adversely affect our ability to execute our current business strategy.

Clinical testing is expensive, difficult to design and implement, can take many years to complete, and is uncertain as to outcome. We may experience delays in clinical trials at any stage of development and testing of our product candidates. Our planned clinical trials may not begin on time, have an effective design, enroll a sufficient number of subjects, or be completed on schedule, if at all.

Events which may result in a delay or unsuccessful completion of clinical trials include:

- inability to raise funding necessary to initiate or continue a trial;
- delays in obtaining regulatory approval to commence a trial;
- delays in reaching agreement with the FDA on final trial design;
- imposition of a clinical hold following an inspection of our clinical trial operations or trial sites by the FDA or other regulatory authorities;
- delays in reaching agreement on acceptable terms with prospective CROs and clinical trial sites;
- delays in obtaining required institutional review board approval at each site;
- delays in having subjects complete participation in a trial or return for post-treatment follow-up;
- delays caused by subjects dropping out of a trial due to side effects or otherwise;
- clinical sites dropping out of a trial to the detriment of enrollment;
- time required to add new clinical sites; and
- delays by our contract manufacturers to produce and deliver a sufficient supply of clinical trial materials.

If initiation or completion of any of our clinical trials for our product candidates are delayed for any of the above reasons or for other reasons, our development costs may increase, our approval process could be delayed, any periods after commercial launch and before expiration of patent protection may be reduced and our competitors may have more time to bring products to market before we do. Any of these events could impair the commercial potential of our product candidates and could have a material adverse effect on our business.

Clinical trials of our product candidates may not uncover all possible adverse effects that patients may experience.

Clinical trials are conducted in representative samples of the potential patient population, which may have significant variability. Clinical trials are by design based on a limited number of subjects and of limited duration for exposure to the product used to determine whether, on a potentially statistically significant basis, the planned safety and efficacy of any product candidate can be achieved. As with the results of any statistical sampling, we cannot be sure

that all side effects of our product candidates may be uncovered, and it may be the case that only with a significantly larger number of patients exposed to the product candidate for a longer duration, that a more complete safety profile is identified. Further, even larger clinical trials may not identify rare serious adverse effects or the duration of such studies may not be sufficient to identify when those events may occur. Patients treated with our products, if approved, may experience adverse reactions and it is possible that the FDA or other regulatory authorities may ask for additional safety data as a condition of, or in connection with, our efforts to obtain approval of our product candidates. If safety problems occur or are identified after our product candidates reach the market, we may, or regulatory authorities may require us to amend the labeling of our products, recall our products or even withdraw approval for our products.

Failure can occur at any stage of our drug development efforts.

We may experience numerous unforeseen events during, or as a result of, testing that could delay or prevent us from obtaining regulatory approval for, or commercializing our drug candidates, including but not limited to:

- regulators or Institutional Review Boards (IRBs) may not authorize us to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- conditions may be imposed upon us by the FDA regarding the scope or design of our clinical trials, or we may be required to resubmit our clinical trial protocols to IRBs for review due to changes in the regulatory environment;
- the number of subjects required for our clinical trials may be larger, patient enrollment may take longer, or patients may drop out of our clinical trials at a higher rate than we anticipate;
- we may have to suspend or terminate one or more of our clinical trials if we, regulators, or IRBs determine that the participants are being subjected to unreasonable health risks;
- our third-party contractors, clinical investigators or contractual collaborators may fail to comply with regulatory requirements or fail to meet their contractual obligations to us in a timely manner;
- the FDA may not accept clinical data from trials that are conducted at clinical sites in countries where the standard of care is potentially different from the United States;
- our tests may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional testing; and
- the costs of our pre-clinical and/or clinical trials may be greater than we anticipate.

We rely on third parties to conduct our pre-clinical studies and clinical studies and trials, and if they do not perform their obligations to us we may not be able to obtain approval for additional indications.

We do not currently have the ability to independently conduct pre-clinical studies or clinical studies and trials, and we have to date relied on third parties, such as third-party contract research and governmental organizations and medical institutions to conduct studies and trials for us. Our reliance on third parties for development activities reduces our control over these activities. These third parties may not complete activities on schedule or may not conduct our pre-clinical studies and our clinical studies and trials in accordance with regulatory requirements or our study design. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may be adversely affected, and our efforts to obtain regulatory approvals for and commercialize indications may be delayed.

If we conduct studies with other parties, we may not have control over all decisions associated with that trial. To the extent that we disagree with the other party on such issues as study design, study timing and the like, it could adversely affect our drug development plans.

Although we also rely on third parties to manage the data from our studies and trials, we are responsible for confirming that each of our studies and trials is conducted in accordance with its general investigational plan and protocol. Moreover, the FDA and foreign regulatory agencies will require us to comply with applicable regulations and standards, including Good Laboratory Practice (GLP) and Good Clinical Practice (GCP), for conducting, recording and reporting the results of such studies and trials to assure that the data and the results are credible and accurate and

that the human study and trial participants are adequately protected. Our reliance on thirdparties does not relieve us of these obligations and requirements, and we may fail to obtain regulatory approval for any additional indications if these requirements are not met.

We will need to continue to develop and maintain distribution and production capabilities or relationships to be successful.

We may not be able to successfully manufacture any product, either independently or under manufacturing arrangements, if any, with third party manufacturers. Moreover, if any manufacturer should cease doing business with us or experience delays, shortages of supply or excessive demands on their capacity, we may not be able to obtain adequate quantities of product in a timely manner, or at all. Manufacturers, and in certain situations their suppliers, are required to comply with current NDA commitments and current good manufacturing practices (cGMP) requirements enforced by the FDA, and similar requirements of other countries. The failure by a manufacturer to comply with these requirements could affect its ability to provide us with products. Although we intend to rely on third-party contract manufacturers, we are ultimately responsible for ensuring that our products are manufactured in accordance with cGMP. In addition, if, during a preapproval inspection or other inspection of our third-party manufacturers' facility or facilities, the FDA determines that the facility is not in compliance with cGMP, any of our marketing applications that lists such facility as a manufacturer may not be approved or approval may be delayed until the facility comes into compliance with cGMP and completes a successful re-inspection by the FDA.

Any manufacturing problem, natural disaster, or epidemic, affecting manufacturing facilities, or the loss of a contract manufacturer could be disruptive to our operations and result in lost sales. Additionally, we will be reliant on third parties to supply the raw materials needed to manufacture our products. Any reliance on suppliers may involve several risks, including a potential inability to obtain critical materials and reduced control over production costs, delivery schedules, reliability and quality. Any unanticipated disruption to future contract manufacture caused by problems at suppliers could delay shipment of products, increase our cost of goods sold and result in lost sales. If our suppliers were to be unable to supply us with adequate supply of our drugs, it could have a material adverse effect on our ability to successfully commercialize our drug candidates.

If we rely on a sole source of supply to manufacture our products we could be impacted by the viability of our supplier.

We intend to attempt to source our products from more than one supplier. We also intend to enter into contracts with any supplier of our products to contractually obligate them to meet our requirements. However, if we are reliant on a single supplier and that supplier cannot or will not meet our requirements (for whatever reason), our business could be adversely impacted.

We may not be able to sufficiently scale-up manufacturing of our drug candidates.

We may not be able to successfully increase in a sufficient manner the manufacturing capacity for our drug candidates, whether in collaboration with third-party manufacturers or on our own, in a timely or cost-effective manner or at all. If a contract manufacturer makes improvements in the manufacturing process for our drug candidates, we may not own, or may have to share, the intellectual property rights to those improvements.

Significant scale-up of manufacturing may require additional validation studies, which are costly and which the FDA must review and approve. In addition, quality issues may arise during those scale-up activities because of the inherent properties of a drug candidate itself or of a drug candidate in combination with other components added during the manufacturing and packaging process, or during shipping and storage of the finished product or active pharmaceutical ingredients. If we are unable to successfully scale-up manufacture of any of our drug candidates in sufficient quality and quantity, the development of that drug candidate and regulatory approval or commercial launch for any resulting drug products may be delayed or there may be a shortage in supply, which could significantly harm our business.

Risks Related to Development and Regulatory Approval of our Future Product Candidates

Clinical trials are expensive, time-consuming, uncertain and susceptible to change, delay or termination. The results of clinical trials are open to differing interpretations.

We have three separate programs for producing anti-inflammatory agents: (1) investigating new clinical opportunities for anti-TNF, (2) identifying orally available, small molecules that are agonists of $\alpha 7$ nicotinic acetylcholine receptor, and (3) identifying patentable analogs of CBD that initially will be used as pain medications. However, these programs, including the related clinical trials, are expensive, time consuming and difficult to design and implement.

Regulatory agencies may analyze or interpret the results of clinical trials differently than us. Even if the results of our clinical trials are favorable, the clinical trials for a number of our future product candidates are expected to continue for several years and may take significantly longer to complete. In addition, the FDA or other regulatory authorities, including state, local and foreign authorities, or an IRB, with respect to a trial at our institution, may suspend, delay or terminate our clinical trials at any time, require us to conduct additional clinical trials, require a particular clinical trial to continue for a longer duration than originally planned, require a change to our development plans such that we conduct clinical trials for a product candidate in a different order, e.g., in a step-wise fashion rather than running two trials of the same product candidate in parallel, or could suspend or terminate the registrations and quota allotments we require in order to procure and handle controlled substances, for various reasons, including the following, any of which could have a material adverse effect on our business, financial condition and results of operations:

- lack of effectiveness of any product candidate during clinical trials;
- discovery of serious or unexpected toxicities or side effects experienced by trial participants or other safety issues, such as drug interactions, including those which cause confounding changes to the levels of other concomitant medications;
- slower than expected rates of subject recruitment and enrollment rates in clinical trials;
- difficulty in retaining subjects who have initiated a clinical trial but may withdraw at any time due to adverse side effects from the therapy, insufficient efficacy, fatigue with the clinical trial process or for any other reason;
- delays or inability in manufacturing or obtaining sufficient quantities of materials for use in clinical trials due to regulatory and manufacturing constraints;
- inadequacy of or changes in our manufacturing process or product formulation;
- delays in obtaining regulatory authorization to commence a trial, including “clinical holds” or delays requiring suspension or termination of a trial by a regulatory agency, such as the FDA, before or after a trial is commenced;
- DEA related recordkeeping, reporting security or other violations at a clinical site, leading the DEA or state authorities to suspend or revoke the site’s-controlled substance license and causing a delay or termination of planned or ongoing trials;
- changes in applicable regulatory policies and regulation, including changes to requirements imposed on the extent, nature or timing of studies;
- delays or failure in reaching agreement on acceptable terms in clinical trial contracts or protocols with prospective clinical trial sites;
- uncertainty regarding proper dosing;
- delay or failure to supply product for use in clinical trials which conforms to regulatory specification;
- unfavorable results from ongoing pre-clinical studies and clinical trials;
- failure of our contract research organizations (“CROs”), or other third-party contractors to comply with all contractual requirements or to perform their services in a timely or acceptable manner;

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- failure by our company, our employees, our CROs or their employees to comply with all applicable FDA or other regulatory requirements relating to the conduct of clinical trials;
- scheduling conflicts with participating clinicians and clinical institutions;
- failure to design appropriate clinical trial protocols;
- regulatory concerns with CBD derivative products generally and the potential for abuse, despite only working with non-plant based non-psychoactive products;
- insufficient data to support regulatory approval;
- inability or unwillingness of medical investigators to follow our clinical protocols; or
- difficulty in maintaining contact with patients during or after treatment, which may result in incomplete data.

We may find it difficult to enroll patients in our clinical trials, which could delay or prevent clinical trials of our product candidates.

Identifying and qualifying patients to participate in clinical trials of our product candidates is critical to our success. The timing of our clinical trials depends on the speed at which we can recruit eligible patients to participate in testing our product candidates. We have experienced delays in some of our clinical trials, and we may experience similar delays in the future. These delays could result in increased costs, delays in advancing our product development, or termination of the clinical trials altogether.

We may not be able to identify, recruit and enroll a sufficient number of patients, or those with required or desired characteristics to achieve diversity in a study, to complete our clinical trials within the expected timeframe. Patient enrollment can be impacted by factors including, but not limited to:

- design and complexity and/or commitment of participation required in the study protocol;
- size of the patient population;
- eligibility criteria for the study in question;
- clinical supply availability;
- delays in participating site identification, qualification and subsequent activation to enroll;
- perceived risks and benefits of the product candidate under study, including as a result of adverse effects observed in similar or competing therapies;
- proximity and availability of clinical trial sites for prospective patients;
- availability of competing therapies and clinical trials;
- competition of site efforts to facilitate timely enrollment in clinical trials;
- participating site motivation;
- patient referral practices of physicians;
- activities of patient advocacy groups;
- ability to monitor patients adequately during and after treatment; and
- severity of the disease under investigation.

In particular, each of the conditions for which we plan to evaluate our product candidates are diseases with limited patient pools from which to draw for clinical trials. The eligibility criteria of our clinical trials will further limit the pool of available study participants. Additionally, the process of finding and diagnosing patients may prove

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costly. The treating physicians in our clinical trials may also use their medical discretion in advising patients enrolled in our clinical trials to withdraw from our studies to try alternative therapies. In addition, the COVID-19 pandemic may impact patient ability and willingness to travel to clinical trial sites as a result of quarantines and other restrictions, which may negatively impact enrollment in our clinical trials.

We may not be able to initiate or continue clinical trials if we cannot enroll the required eligible patients per protocol to participate in the clinical trials required by the FDA or the EMA or other regulatory agencies. Our ability to successfully initiate, enroll and complete a clinical trial in any foreign country is subject to numerous risks unique to conducting business in foreign countries, including:

- difficulty in establishing or managing relationships with CROs and physicians;
- different standards for the conduct of clinical trials;
- our inability to locate qualified local consultants, physicians and partners;
- the potential burden of complying with a variety of foreign laws, medical standards and regulatory requirements, including the regulation of pharmaceutical and biotechnology products and treatment;
- ability to procure and deliver necessary clinical trial materials needed to perform the study; and
- inability to implement adequate training at participating sites remotely when in person training cannot be completed.

If we have difficulty enrolling a sufficient number of patients to conduct our clinical trials as planned, we may need to delay, limit or terminate ongoing or planned clinical trials, any of which would have an adverse effect on our ability to complete clinical trials and ultimately our results of operations.

Any failure by our company to comply with existing regulations could harm our reputation and operating results.

We are subject to extensive regulation by U.S. federal and state and foreign governments in each of the United States, European and Canadian markets, in which we plan to sell our products, or in markets where we have product candidates progressing through the approval process.

We must adhere to all regulatory requirements including FDA's Good Laboratory Practice ("GLP"), Good Clinical Practice ("GCP"), and GMP requirements, pharmacovigilance requirements, advertising and promotion restrictions, reporting and recordkeeping requirements, and their European equivalents. If we or our suppliers fail to comply with applicable regulations, including FDA pre-or post-approval requirements, then the FDA or other foreign regulatory authorities could sanction our company. Even if a drug is approved by the FDA or other competent authorities, regulatory authorities may impose significant restrictions on a product's indicated uses or marketing or impose ongoing requirements for potentially costly post-marketing trials. Any of product candidates which may be approved in the United States will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, distribution, import, export, advertising, promotion, sampling, recordkeeping and submission of safety and other post-market information, including both federal and state requirements. In addition, manufacturers and manufacturers' facilities are required to comply with extensive FDA requirements, including ensuring that quality control and manufacturing procedures conform to GMP. As such, we and our contract manufacturers (in the event contract manufacturers are appointed in the future) are subject to continual review and periodic inspections to assess compliance with GMP. Accordingly, we and others with whom we work will have to spend time, money and effort in all areas of regulatory compliance, including manufacturing, production, quality control and quality assurance. We will also be required to report certain adverse reactions and production problems, if any, to the FDA, and to comply with requirements concerning advertising and promotion for our products. Promotional communications with respect to prescription drugs are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved label. Similar — and sometimes stricter (e.g., with respect to promotional communications) — restrictions and requirements exist in the European Union and other markets where we operate.

If a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, or disagrees with the promotion, marketing or labeling of the product, it may impose restrictions on that product or on our

company, including requiring withdrawal of the product from the market. If we fail to comply with applicable regulatory requirements, a regulatory agency or enforcement authority may issue warning letters, impose civil or criminal penalties, suspend regulatory approval, suspend any of our ongoing clinical trials, refuse to approve pending applications or supplements to approved applications submitted by us, impose restrictions on our operations, or seize or detain products or require a product recall.

In addition, it is possible that our future products will be regulated by the DEA, under the Controlled Substances Act or under similar laws elsewhere. DEA scheduling is a separate process that can delay when a drug may become available to patients beyond an NDA approval date, and the timing and outcome of such DEA process is uncertain. See also “Risks Related to Controlled Substances.”

In addition, any government investigation of alleged violations of law could require us to spend significant time and resources in response, and could generate negative publicity. Any failure to comply with ongoing regulatory requirements may significantly and adversely affect our ability to commercialize and generate revenue from our future product candidates. If regulatory sanctions are applied or if regulatory approval is withdrawn, the value of our business and our operating results may be adversely affected.

Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses, divert our management’s attention from the operation of our business and damage our reputation. We expect to spend significant resources on compliance efforts and such expenses are unpredictable. Changing laws, regulations and standards might also create uncertainty, higher expenses and increase insurance costs. As a result, we intend to invest all reasonably necessary resources to comply with evolving standards, and this investment might result in increased management and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities.

We are subject to federal, state and foreign healthcare laws and regulations and implementation of or changes to such healthcare laws and regulations could adversely affect our business and results of operations.

In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory proposals to change the healthcare system in ways that could impact our ability to sell our future product candidates. If we are found to be in violation of any of these laws or any other federal, state or foreign regulations, we may be subject to administrative, civil and/or criminal penalties, damages, fines, individual imprisonment, we from federal health care programs and the restructuring of our operations. Any of these could have a material adverse effect on our business and financial results. Since many of these laws have not been fully interpreted by the courts, there is an increased risk that we may be found in violation of one or more of their provisions. Any action against us for violation of these laws, even if we ultimately are successful in our defense, will cause us to incur significant legal expenses and divert our management’s attention away from the operation of our business. In addition, in many foreign countries, particularly the countries of the European Union the pricing of prescription drugs is subject to government control.

In some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country.

For example, some EU jurisdictions operate positive and negative list systems under which products may only be marketed once a reimbursement price has been agreed. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost-effectiveness of a particular product candidate to currently available therapies. Other member states allow companies to fix their own prices for medicines but monitor and control company profits. Such differences in national pricing regimes may create price differentials between EU member states. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products. Historically, products launched in the United Kingdom and European Union do not follow price structures of the United States. In the United Kingdom and European Union, the downward pressure on healthcare costs in general, particularly prescription medicines, has become intense. As a result, barriers to entry of new products are becoming increasingly high and patients are unlikely to use a drug product that is not reimbursed by their government. We may face competition from lower-priced products in foreign countries that have placed price controls on pharmaceutical products. In addition, the importation of foreign products may compete with any future product that we may market, which could negatively impact our profitability.

Specifically, in the United States, we expect that the 2010 Affordable Care Act (“ACA”), as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we may receive for any approved product. There have been judicial challenges to certain aspects of the ACA and numerous legislative attempts to repeal and/or replace the ACA in whole or in part, and we expect there will be additional challenges and amendments to the ACA in the future. At this time, the full effect that the ACA will have on our business in the future remains unclear. An expansion in the government’s role in the U.S. healthcare industry may cause general downward pressure on the prices of prescription drug products, lower reimbursements or any other product for which we obtain regulatory approval, reduce product utilization and adversely affect our business and results of operations. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize any of our future product candidates for which we may receive regulatory approval.

Information obtained from expanded access studies may not reliably predict the efficacy of our future product candidates in company-sponsored clinical trials and may lead to adverse events that could limit approval.

The expanded access studies we are currently supporting are uncontrolled, carried out by individual investigators and not typically conducted in strict compliance with GCPs, all of which can lead to a treatment effect which may differ from that in placebo-controlled trials. These studies provide only anecdotal evidence of efficacy for regulatory review. These studies contain no control or comparator group for reference and this patient data is not designed to be aggregated or reported as study results. Moreover, data from such small numbers of patients may be highly variable. Information obtained from these studies, including the statistical principles that we and the independent investigators have chosen to apply to the data, may not reliably predict data collected via systematic evaluation of the efficacy in company-sponsored clinical trials or evaluated via other statistical principles that may be applied in those trials. Reliance on such information to design our clinical trials may lead to trials that are not adequately designed to demonstrate efficacy and could delay or prevent our ability to seek approval of our future product candidates.

Expanded access programs provide supportive safety information for regulatory review. Physicians conducting these studies may use our future product candidates in a manner inconsistent with the protocol, including in children with conditions beyond those being studied in trials which we sponsor. Any adverse events or reactions experienced by subjects in the expanded access program may be attributed to our future product candidates and may limit our ability to obtain regulatory approval with labeling that we consider desirable, or at all.

There is a high rate of failure for drug candidates proceeding through clinical trials.

Generally, there is a high rate of failure for drug candidates proceeding through clinical trials. We may suffer significant setbacks in our clinical trials similar to the experience of a number of other companies in the pharmaceutical and biotechnology industries, even after receiving promising results in earlier trials. Further, even if we view the results of a clinical trial to be positive, the FDA or other regulatory authorities may disagree with our interpretation of the data. In the event that we obtain negative results from clinical trials for product candidates or other problems related to potential chemistry, manufacturing and control issues or other hurdles occur and our future product candidates are not approved, we may not be able to generate sufficient revenue or obtain financing to continue our operations, our ability to execute on our current business plan may be materially impaired, and our reputation in the industry and in the investment community might be significantly damaged. In addition, our inability to properly design, commence and complete clinical trials may negatively impact the timing and results of our clinical trials and ability to seek approvals for our drug candidates.

If we are found in violation of federal or state “fraud and abuse” laws or similar laws in other jurisdictions, we may be required to pay a penalty and/or be suspended from participation in federal or state health care programs, which may adversely affect our business, financial condition and results of operations.

In the United States, we are subject to various federal and state health care “fraud and abuse” laws, including anti-kickback laws, false claims laws and other laws intended to reduce fraud and abuse in federal and state health care programs, which could affect our company particularly upon successful commercialization of our products in the United States. The Medicare and Medicaid Patient Protection Act of 1987, or federal Anti-Kickback Statute, makes it illegal for any person, including a prescription drug manufacturer (or a party acting on its behalf), to knowingly and

willfully solicit, receive, offer or pay any remuneration that is intended to induce the referral of business, including the purchase, order or prescription of a particular drug for which payment may be made under a federal health care program, such as Medicare or Medicaid. Under federal law, some arrangements, known as safe harbors, are deemed not to violate the federal Anti-Kickback Statute. Although we seek to structure our business arrangements in compliance with all applicable requirements, it is often difficult to determine precisely how the law will be applied in specific circumstances. Accordingly, it is possible that our practices may be challenged under the federal Anti-Kickback Statute and Federal False Claims Act. Violations of fraud and abuse laws may be punishable by criminal and/or civil sanctions, including fines and/or exclusion or suspension from federal and state health care programs such as Medicare and Medicaid and debarment from contracting with the U.S. government. In addition, private individuals have the ability to bring actions on behalf of the government under the federal False Claims Act as well as under the false claims laws of several states.

While we believe that we have structured our business arrangements to comply with these laws, the government could allege violations of, or convict us of violating, these laws. If we are found in violation of one of these laws, we could be required to pay a penalty and could be suspended or excluded from participation in federal or state health care programs, and our business, results of operations and financial condition may be adversely affected.

The Member States of the European Union and other countries also have anti-kickback laws and can impose penalties in case of infringement, which, in some jurisdictions, can also be enforced by competitors.

Serious adverse events or other safety risks could require us to abandon development and preclude, delay or limit approval of our future product candidates, limit the scope of any approved label or market acceptance, or cause the recall or loss of marketing approval of products that are already marketed.

If any of our future product candidates prior to or after any approval for commercial sale, cause serious or unexpected side effects, or are associated with other safety risks such as misuse, abuse or diversion, a number of potentially significant negative consequences could result, including:

- regulatory authorities may interrupt, delay or halt clinical trials;
- regulatory authorities may deny regulatory approval of our future product candidates;
- regulatory authorities may require certain labeling statements, such as warnings or contraindications or limitations on the indications for use, and/or impose restrictions on distribution in the form of a REMS in connection with approval or post-approval;
- regulatory authorities may withdraw their approval, require more onerous labeling statements, impose a more restrictive REMS, or require us to recall any product that is approved;
- we may be required to change the way the product is administered or conduct additional clinical trials;
- our relationships with our collaboration partners may suffer;
- we could be sued and held liable for harm caused to patients; or
- our reputation may suffer. The reputational risk is heightened with respect to those of our future product candidates that are being developed for pediatric indications.

We may voluntarily suspend or terminate our clinical trials if at any time we believe that the products present an unacceptable risk to participants, or if preliminary data demonstrates that our future product candidates are unlikely to receive regulatory approval or unlikely to be successfully commercialized. Following receipt of approval for commercial sale of a product, we may voluntarily withdraw or recall that product from the market if at any time we believe that its use, or a person's exposure to it, may cause adverse health consequences or death. To date, we have not withdrawn, recalled or taken any other action, voluntary or mandatory, to remove an approved product from the market. In addition, regulatory agencies, IRBs or data safety monitoring boards may at any time recommend the temporary or permanent discontinuation of our clinical trials or request that we cease using investigators in the clinical trials if they believe that the clinical trials are not being conducted in accordance with applicable regulatory requirements, or that they present an unacceptable safety risk to participants. Although we have never been asked by a regulatory agency, IRB or data safety monitoring board to temporarily or permanently discontinue a clinical trial, if we elect or

are forced to suspend or terminate a clinical trial of any of our future product candidates, the commercial prospects for that product will be harmed and our ability to generate product revenue from that product may be delayed or eliminated. Furthermore, any of these events may result in labeling statements such as warnings or contraindications. In addition, such events or labeling could prevent us or our partners from achieving or maintaining market acceptance of the affected product and could substantially increase the costs of commercializing our future product candidates and impair our ability to generate revenue from the commercialization of these products either by our company or by our collaboration partners.

The development of a REMS for our future product candidates could cause delays in the approval process and would add additional layers of regulatory requirements that could impact our ability to commercialize our future product candidates in the United States and reduce their market potential.

Even if the FDA approves our NDA for any of our future product candidates without requiring a REMS as a condition of approval of the NDA, the FDA may, post-approval, require a REMS for any of our future product candidates if it becomes aware of new safety information that makes a REMS necessary to ensure that the benefits of the drug outweigh the potential risks. REMS elements can include medication guides, communication plans for health care professionals, and ETASU. ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring and the use of patient registries. Moreover, product approval may require substantial post-approval testing and surveillance to monitor the drug's safety or efficacy. We may be required to adopt a REMS for our future product candidates to ensure that the benefits outweigh the risks of abuse, misuse, diversion and other potential safety concerns. There can be no assurance that the FDA will approve a manageable REMS for our future product candidates, which could create material and significant limits on our ability to successfully commercialize our future product candidates in the United States. Delays in the REMS approval process could result in delays in the NDA approval process. In addition, as part of the REMS, the FDA could require significant restrictions, such as restrictions on the prescription, distribution and patient use of the product, which could significantly impact our ability to effectively commercialize our future product candidates, and dramatically reduce their market potential, thereby adversely impacting our business, financial condition and results of operations. Even if initial REMS are not highly restrictive, if, after launch, our future product candidates were to be subject to significant abuse/non-medical use or diversion from illicit channels, this could lead to negative regulatory consequences, including a more restrictive REMS.

Risks Related to our Reliance Upon Third Parties

Our existing collaboration arrangements and any that we may enter into in the future may not be successful, which could adversely affect our ability to develop and commercialize our future product candidates.

We are a party to, and may seek additional, collaboration arrangements with pharmaceutical or biotechnology companies for the development or commercialization of our future product candidates. We may, with respect to our future product candidates, enter into new arrangements on a selective basis depending on the merits of retaining commercialization rights for ourselves as compared to entering into selective collaboration arrangements with leading pharmaceutical or biotechnology companies for each product candidate, both in the United States and internationally. To the extent that we decide to enter into collaboration agreements, we will face significant competition in seeking appropriate collaborators and the terms of any collaboration or other arrangements that we may establish may not be favorable to us.

Any existing or future collaboration that we enter into may not be successful. The success of our collaboration arrangements will depend heavily on the efforts and activities of our collaborators. Collaborators generally have significant discretion in determining the efforts and resources that they will apply to these collaborations. Disagreements between parties to a collaboration arrangement regarding development, intellectual property, regulatory or commercialization matters, can lead to delays in the development process or commercialization of the applicable product candidate and, in some cases, termination of the collaboration arrangement. These disagreements can be difficult to resolve if neither of the parties has final decision-making authority. Any such termination or expiration could harm our business reputation and may adversely affect it financially.

We expect to depend on a limited number of suppliers for materials and components in order to manufacture our future product candidates. The loss of these suppliers, or their failure to supply us on a timely basis, could cause delays in our current and future capacity and adversely affect our business.

We expect to depend on a limited number of suppliers for the materials and components required to manufacture our future product candidates. As a result, we may not be able to obtain sufficient quantities of critical materials and components in the future. A delay or interruption by our suppliers may also harm our business, results of operations and financial condition. In addition, the lead time needed to establish a relationship with a new supplier can be lengthy, and we may experience delays in meeting demand in the event we must switch to a new supplier. The time and effort to qualify for and, in some cases, obtain regulatory approval for a new supplier could result in additional costs, diversion of resources or reduced manufacturing yields, any of which would negatively impact our operating results. Our dependence on single-source suppliers exposes us to numerous risks, including the following: our suppliers may cease or reduce production or deliveries, they may be subject to government investigations and regulatory actions that limit or prevent production capabilities for an extended period of time, raise prices or renegotiate terms; our suppliers may become insolvent; we may be unable to locate a suitable replacement supplier on acceptable terms or on a timely basis, or at all; and delays caused by supply issues may harm our reputation, frustrate our customers and cause them to turn to our competitors for future needs.

Risks Related to our Intellectual Property

We may not be able to adequately protect our future product candidates or our proprietary technology in the marketplace.

Our success will depend, in part, on our ability to obtain patents, protect our trade secrets and operate without infringing on the proprietary rights of others. We rely upon a combination of patents, trade secret protection (i.e., know-how), and confidentiality agreements to protect the intellectual property of our future product candidates. The strengths of patents in the pharmaceutical field involve complex legal and scientific questions, and can be uncertain. Where appropriate, we seek patent protection for certain aspects of our products and technology. Filing, prosecuting and defending patents globally can be prohibitively expensive.

Our policy is to look to patent technologies with commercial potential in jurisdictions with significant commercial opportunities. However, patent protection may not be available for some of the products or technology we are developing. If we must spend significant time and money protecting, defending or enforcing our patents, designing around patents held by others or licensing, potentially for large fees, patents or other proprietary rights held by others, our business, results of operations and financial condition may be harmed. We may not develop additional proprietary products that are patentable. As of the date hereof, we have an extensive portfolio of patents, including many granted patents and patents pending approval.

The patent positions of pharmaceutical products are complex and uncertain. The scope and extent of patent protection for our future product candidates are particularly uncertain. Our future product candidates will be based on medicinal chemistry instead of cannabis plants. While we have sought patent protection, where appropriate, directed to, among other things, composition-of-matter for its specific formulations, their methods of use, and methods of manufacture, we do not have and will not be able to obtain composition of matter protection on these previously known CBD derivatives per se. We anticipate that the products we develop in the future will be based upon synthetic compounds we may discover. Although we have sought, and will continue to seek, patent protection in the United States, Europe and other countries for our proprietary technologies, future product candidates, their methods of use, and methods of manufacture, any or all of them may not be subject to effective patent protection. If any of our products are approved and marketed for an indication for which we do not have an issued patent, our ability to use our patents to prevent a competitor from commercializing a non-branded version of our commercial products for that non-patented indication could be significantly impaired or even eliminated.

Publication of information related to our future product candidates by our company or others may prevent it from obtaining or enforcing patents relating to these products and product candidates. Furthermore, others may independently develop similar products, may duplicate our products, or may design around our patent rights. In addition, any of our issued patents may be opposed and/or declared invalid or unenforceable. If we fail to adequately protect our

intellectual property, we may face competition from companies who attempt to create a generic product to compete with our future product candidates. We may also face competition from companies who develop a substantially similar product to our future product candidates that is not covered by any of our patents.

Many companies have encountered significant problems in protecting, defending and enforcing intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property rights, particularly those relating to pharmaceuticals, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business.

If third parties claim that intellectual property used by our company infringes upon their intellectual property, our operating profits could be adversely affected.

There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the pharmaceutical industry. We may, from time to time, be notified of claims that we are infringing upon patents, trademarks, copyrights or other intellectual property rights owned by third parties, and we cannot provide assurances that other companies will not, in the future, pursue such infringement claims against us, our commercial partners or any third-party proprietary technologies we have licensed. If we were found to infringe upon a patent or other intellectual property right, or if we failed to obtain or renew a license under a patent or other intellectual property right from a third party, or if a third party from whom we were licensing technologies was found to infringe upon a patent or other intellectual property rights of another third party, we may be required to pay damages, including damages of up to three times the damages found or assessed, if the infringement is found to be willful, suspend the manufacture of certain products or reengineer or rebrand our products, if feasible, or we may be unable to enter certain new product markets. Any such claims could also be expensive and time consuming to defend and divert management's attention and resources. Our competitive position could suffer as a result. In addition, if we have declined or failed to enter into a valid non-disclosure or assignment agreement for any reason, we may not own the invention or our intellectual property, and our products may not be adequately protected. Thus, we cannot guarantee that any of our future product candidates, or our commercialization thereof, does not and will not infringe any third party's intellectual property.

If we are not able to adequately prevent disclosure of trade secrets and other proprietary information, the value of our technology and products could be significantly diminished.

We rely on trade secrets to protect our proprietary technologies, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. We rely in part on confidentiality agreements with current and former employees, consultants, outside scientific collaborators, sponsored researchers, contract manufacturers, vendors and other advisors to protect our trade secrets and other proprietary information. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, we cannot guarantee that we have executed these agreements with each party that may have or have had access to our trade secrets. Any party with whom we or they have executed such an agreement may breach that agreement and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches.

Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. Also, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them, or those to whom they disclose such trade secrets, from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor or other third-party, our competitive position would be harmed.

Risks Related to Controlled Substances

Controlled substance legislation differs between countries, and legislation in certain countries may restrict or limit our ability to sell our future product candidates.

Most countries are parties to the Single Convention on Narcotic Drugs 1961 and the Convention on Psychotropic Substances 1971, which governs international trade and domestic control of narcotic substances, including cannabis extracts. Countries may interpret and implement their treaty obligations in a way that creates a legal obstacle to us obtaining marketing approval for our future products in those countries. These countries may not be willing or able to amend or otherwise modify their laws and regulations to permit our future products to be marketed, or achieving such amendments to the laws and regulations may take a prolonged period of time. In that case, we would be unable to market our future product candidates in those countries in the near future or perhaps at all.

The product candidates that we are developing may be subject to U.S. controlled substance laws and regulations and failure to comply with these laws and regulations, or the cost of compliance with these laws and regulations, may adversely affect the results of our business operations, both during clinical development and post approval, and our financial condition.

The product candidates that we are developing may contain controlled substances as defined in The United States Federal Controlled Substances Act of 1970 and the Controlled Substances Import and Export Act, as amended (“CSA”). Controlled substances that are pharmaceutical products are subject to a high degree of regulation under the CSA, which establishes, among other things, certain registration, manufacturing quotas, security, recordkeeping, reporting, import, export and other requirements administered by the DEA. The DEA classifies controlled substances into five schedules: Schedule I, II, III, IV or V substances. Schedule I substances by definition have a high potential for abuse, no currently “accepted medical use” in the United States, lack accepted safety for use under medical supervision, and may not be prescribed, marketed or sold in the United States. Pharmaceutical products approved for use in the United States which contain a controlled substance are listed as Schedule II, III, IV or V, with Schedule II substances considered to present the highest potential for abuse or dependence and Schedule V substances the lowest relative risk of abuse among such substances.

While cannabis is a Schedule I controlled substance, products approved for medical use in the United States that contain cannabis or cannabis extracts should be placed in Schedules II-V, since approval by the FDA satisfies the “accepted medical use” requirement. If and when any of our future product candidates receive FDA approval, the DEA will make a scheduling determination. If the FDA, the DEA or any foreign regulatory authority determines that our future product candidates may have potential for abuse, it may require us to generate more clinical or other data than we currently anticipate to establish whether or to what extent the substance has an abuse potential, which could increase the cost and/or delay the launch of that product.

Facilities conducting research, manufacturing, distributing, importing or exporting, or dispensing controlled substances must be registered (licensed) to perform these activities and have the security, control, recordkeeping, reporting and inventory mechanisms required by the DEA to prevent drug loss and diversion. All these facilities must renew their registrations annually, except dispensing facilities, which must renew every three years. The DEA conducts periodic inspections of certain registered establishments that handle controlled substances. Obtaining the necessary registrations may result in delay of the importation, manufacturing or distribution of our future products. Furthermore, failure to maintain compliance with the CSA, particularly non-compliance resulting in loss or diversion, can result in regulatory action that could have a material adverse effect on our business, financial condition and results of operations. The DEA may seek civil penalties, refuse to renew necessary registrations, or initiate proceedings to restrict, suspend or revoke those registrations. In certain circumstances, violations could lead to criminal proceedings.

Individual states have also established controlled substance laws and regulations. Although state-controlled substances laws often mirror federal law, because the states are separate jurisdictions, they may separately schedule our future product candidates as well. State scheduling may delay commercial sale of any product for which we obtain federal regulatory approval and adverse scheduling could have a material adverse effect on the commercial attractiveness of such product. We or our partners must also obtain separate state registrations, permits or licenses in order to be able to obtain, handle, and distribute controlled substances for clinical trials or commercial sale, and failure to meet applicable regulatory requirements could lead to enforcement and sanctions by the states in addition to those from the DEA or otherwise arising under federal law.

Because our products may be controlled substances in the United States, to conduct clinical trials in the United States, each of our research sites must submit a research protocol to the DEA and obtain and maintain a DEA researcher registration that will allow those sites to handle and dispense our products and to obtain product from our importer. If the DEA delays or denies the grant of a research registration to one or more research sites, the clinical trial could be significantly delayed, and we could lose clinical trial sites. The importer for the clinical trials must also obtain an importer registration and an import permit for each import.

The legislation on cannabis in the European Union differs among the member states, as this area is not yet fully harmonized. In Germany, for example, cannabis is regulated as a controlled substance (*Betäubungsmittel*) and its handling requires specific authorization.

The legalization and use of medical and recreational cannabis in the United States and abroad may impact our business.

There is a substantial amount of change occurring in the United States regarding the use of medical and recreational cannabis products. While cannabis products not approved by the FDA are Schedule I substances as defined under federal law, and their possession and use is not permitted according to federal law (except for research purposes, under DEA registration), at least 36 states and the District of Columbia have enacted state laws to enable possession and use of cannabis for medical purposes, and at least 18 states and the District of Columbia for recreational purposes. The U.S. Farm Bill, which was passed in 2018, descheduled certain material derived from hemp plants with extremely low tetrahydrocannabinol (“THC”) content. Although our business is quite distinct from that of online and dispensary cannabis companies, future legislation authorizing the sale, distribution, use, and insurance reimbursement of non-FDA approved cannabis products could affect our business.

General Business Risks Relating to our Company

Changes in laws or regulations, or a failure to comply with any laws and regulations, may adversely affect our business, investments and results of operations.

We are subject to laws, regulations and rules enacted by national, regional and local governments. In particular, we are required to comply with certain SEC, Nasdaq and other legal or regulatory requirements. Compliance with, and monitoring of, applicable laws, regulations and rules may be difficult, time consuming and costly. Those laws, regulations and rules and their interpretation and application may also change from time to time and those changes could have a material adverse effect on our business, investments and results of operations. In addition, a failure to comply with applicable laws, regulations and rules, as interpreted and applied, could have a material adverse effect on our business and results of operations.

Certain of our executive officers and directors are now, and all of them may in the future become, affiliated with entities engaged in business activities similar to those conducted by us and, accordingly, may have conflicts of interest in determining to which entity a particular business opportunity should be presented.

Our executive officers and directors are, or may in the future become, affiliated with entities that are engaged in business activities similar to those that are conducted by us. Our officers and directors also may become aware of business opportunities which may be appropriate for presentation to us and the other entities to which they owe certain fiduciary or contractual duties. Accordingly, they may have conflicts of interest in determining whether a particular business opportunity should be presented to our company or to another entity. These conflicts may not be resolved in our favor and a potential opportunity may be presented to another entity prior to its presentation to us. Our Certificate of Incorporation provides that we renounce our interest in any corporate opportunity offered to any director or officer unless such opportunity is expressly offered to such person solely in his or her capacity as a director or officer of our company and such opportunity is one we are legally and contractually permitted to undertake and would otherwise be reasonable for us to pursue.

Our executive officers, directors, security holders and their respective affiliates may have competitive pecuniary interests that conflict with our interests.

We have not adopted a policy that expressly prohibits our directors, executive officers, security holders or affiliates from having a direct or indirect pecuniary or financial interest in any investment to be acquired or disposed of

by us or in any transaction to which we are a party or have an interest. In fact, we may enter into a strategic transaction with a target business that is affiliated with our directors or executive officers. Nor do we have a policy that expressly prohibits any such persons from engaging for their own account in business activities of the types conducted by us. Accordingly, such persons or entities may have a conflict between their interests and ours. Certain of our officers and directors hold positions with companies which may be competitors of us. See also the biographies of our officers and directors below under “Management” below.

We face significant penalties and damages in the event registration statements we filed to register certain securities sold in our prior offerings are subsequently suspended or terminated.

We previously registered the shares of common stock issuable upon conversion of certain outstanding convertible promissory notes under the Securities Act, for resale. The agreements pursuant to which we sold such securities, and in some cases, the securities themselves, provide for liquidated damages upon the occurrence of certain events. Due to the requirement that we restate our June 30, 2020 and September 30, 2020 quarterly financial statements, and the similar requirement that we update such registration statement to reflect such restatement, the holders were due certain penalties. Such penalties and/or others which we are subject, could adversely affect our cash flow and cause the value of our securities to decline in value.

We entered into the Alpha Settlement Agreement, and issued the shares of our common stock and the Alpha Settlement Warrants to Alpha Capital Anstalt thereunder, to settle our potential liabilities arising from the above-described deficiencies relating to the registration and delivery of the applicable securities.

The value of our existing intangible assets may become impaired, depending upon future operating results.

Our intangible assets were approximately \$51.5 million as of December 31, 2021, representing approximately 81% of our total assets. We evaluate our intangible assets annually, or more often if there is a triggering event, to determine whether all or a portion of their carrying value may no longer be recoverable, in which case a charge to earnings may be necessary. Any future evaluations requiring an asset impairment charge for intangible assets would adversely affect future reported results of operations and stockholders’ equity, although such charges would not affect our cash flow.

Our outstanding warrants may have an adverse effect on the market price of our common stock.

In our IPO, we issued Public Warrants to purchase 6,001,250 shares of common stock as part of the units offered in our IPO and, simultaneously with the closing of our IPO, we issued in a private placement an aggregate of 502,500 Private Placement Warrants contained in the private placement units, each exercisable to purchase one-half of one share of common stock at \$5.75 per half share. Additionally, (a) in February 2021, we sold February PIPE Warrants to purchase up to 2,564,000 shares of common stock with an exercise price of \$5.00 per share pursuant to the February SPA, (b) in March 2021, we issued the AGP Warrants to purchase up to 63,658 shares of common stock at an exercise price of \$5.28 per share to Alliance Global Partners, (c) in July 2021, we issued Alpha Settlement Warrants to purchase up to 25,000 shares of common stock at an exercise price of \$7.07 per share pursuant to the Alpha Settlement Agreement, and (d) in August 2021, we sold August PIPE Warrant to purchase up to 2,500,000 shares of common stock with an exercise price of \$7.50 per share pursuant to the August SPA. Such warrants, if and when exercised, will increase the number of issued and outstanding shares of our common stock and potentially reduce the value of the outstanding shares of common stock.

Our business has been, and may continue to be, adversely affected by the COVID-19 pandemic.

The extent to which COVID-19 may impact our business will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the duration of the outbreak, travel restrictions and social distancing in the United States and other countries, business closures or business disruptions, and the effectiveness of actions taken in the United States and other countries to contain and treat the disease. Should the COVID-19 pandemic continue, our plans could be delayed or interrupted. The spread of COVID-19 has also created global economic uncertainty, which may cause partners, suppliers and potential customers to closely monitor their costs and reduce their spending budget. The foregoing could materially adversely affect the clinical trials, supply chain, financial condition and financial performance of our company.

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Enrollment of patients in our clinical trials, maintaining patients in our ongoing clinical trials, doing follow-up visits with recruited patients and collecting data have been, and may continue to be, delayed or limited as certain of our clinical trial sites limit their onsite staff or temporarily close as a result of the COVID-19 pandemic and ongoing government restrictions. In addition, patients may not be able or willing to visit clinical trial sites for dosing or data collection purposes due to limitations on travel and physical distancing imposed or recommended by federal or state governments or patients' reluctance to visit the clinical trial sites during the pandemic. These factors resulting from the COVID-19 pandemic could delay or prevent the anticipated readouts from our clinical trials, which could ultimately delay or prevent our ability to generate revenues and could have a material adverse effect on our results of operations.

Risks Related to our Common Stock and Warrants

The market price of our common stock has been extremely volatile and may continue to be volatile due to numerous circumstances beyond our control.

The market price of our common stock has fluctuated, and may continue to fluctuate, widely, due to many factors, some of which may be beyond our control. These factors include, without limitation:

- “short squeezes”;
- comments by securities analysts or other third parties, including blogs, articles, message boards and social and other media;
- large stockholders exiting their position in our securities or an increase or decrease in the short interest in our securities;
- actual or anticipated fluctuations in our financial and operating results;
- risks and uncertainties associated with the ongoing COVID-19 pandemic;
- changes in foreign currency exchange rates;
- the commencement, enrollment or results of our planned or future clinical trials of our product candidates or those of our competitors;
- the success of competitive drugs or therapies;
- regulatory or legal developments in the United States and other countries;
- the success of competitive products or technologies;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- the recruitment or departure of key personnel;
- the level of expenses related to our product candidates or clinical development programs;
- the results of our efforts to discover, develop, acquire or inlicense additional product candidates;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- our inability to obtain or delays in obtaining adequate drug supply for any approved drug or inability to do so at acceptable prices;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- significant lawsuits, including patent or stockholder litigation;
- variations in our financial results or those of companies that are perceived to be similar to us;
- changes in the structure of healthcare payment systems, including coverage and adequate reimbursement for any approved drug;

- market conditions in the pharmaceutical and biotechnology sectors;
- general economic, political, and market conditions and overall fluctuations in the financial markets in the United States and abroad; and
- investors' general perception of us and our business.

Stock markets in general and our stock price in particular have recently experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies and our company. For example, on March 26, 2021, our common stock experienced an intra-day trading high of \$10.60 per share and a low of \$6.72 per share. In addition, during 2021, the sale prices of our common stock has ranged from a high of \$13.05 per share (on April 13, 2021) to a low of \$2.41 per share (on January 4, 2021). During this time, we have not experienced any material changes in our financial condition or results of operations that would explain such price volatility or trading volume. These broad market fluctuations may adversely affect the trading price of our securities. Additionally, these and other external factors have caused and may continue to cause the market price and demand for our common stock to fluctuate substantially, which may limit or prevent our stockholders from readily selling their shares of our common stock and may otherwise negatively affect the liquidity of our common stock.

Information available in public media that is published by third parties, including blogs, articles, message boards and social and other media may include statements not attributable to us and may not be reliable or accurate.

We are aware of a large volume of information being disseminated by third parties relating to our operations, including in blogs, message boards and social and other media. Such information as reported by third parties may not be accurate, may lead to significant volatility in our securities and may ultimately result in our common stock or other securities declining in value.

A significant number of our shares are eligible for sale and their sale or potential sale may depress the market price of our common stock.

Sales of a significant number of shares of our common stock in the public market could harm the market price of our common stock. Most of our common stock is available for resale in the public market, including (a) options to purchase 2,741,000 shares of common stock with a weighted average exercise price of \$4.77 per share; and (b) warrants to purchase 11,153,908 shares of common stock with a weighted average exercise price of \$9.06 per share. If a significant number of shares were sold, such sales would increase the supply of our common stock, thereby potentially causing a decrease in its price. Some or all of our shares of common stock may be offered from time to time in the open market pursuant to effective registration statements and/or compliance with Rule 144 (which was available starting November 6, 2021, subject to compliance with Rule 144, due to our status as a former "shell company"), which sales could have a depressive effect on the market for our shares of common stock. Subject to certain restrictions, a person who has held restricted shares for a period of six months may generally sell common stock into the market. The sale of a significant portion of such shares when such shares are eligible for public sale may cause the value of our common stock to decline in value.

There may not be sufficient liquidity in the market for our securities in order for investors to sell their shares. The market price of our common stock may continue to be volatile.

The market price of our common stock will likely continue to be highly volatile. Some of the factors that may materially affect the market price of our common stock are beyond our control, such as conditions or trends in the industry in which we operate or sales of our common stock. This situation is attributable to a number of factors, including the fact that we are a small company which is relatively unknown to stock analysts, stock brokers, institutional investors and others in the investment community that generate or influence sales volume, and that even if we came to the attention of such persons, they tend to be risk-averse and would be reluctant to follow an unproven company such as ours or purchase or recommend the purchase of our shares until such time as we became more seasoned and viable.

As a consequence, there may be periods of several days or more when trading activity in our shares is minimal or non-existent, as compared to a mature issuer which has a large and steady volume of trading activity that will generally support continuous sales without an adverse effect on share price. It is possible that a broader or more active public trading market for our common stock will not develop or be sustained, or that trading levels will not continue. These factors may materially adversely affect the market price of our common stock, regardless of our performance.

In addition, the public stock markets have experienced extreme price and trading volume volatility. This volatility has significantly affected the market prices of securities of many companies for reasons frequently unrelated to the operating performance of the specific companies. These broad market fluctuations may adversely affect the market price of our common stock.

Risks Associated with Our Governing Documents and Delaware Law

Our Certificate of Incorporation provides for indemnification of officers and directors at our expense and limits their liability, which may result in a major cost to us and hurt the interests of our stockholders because corporate resources may be expended for the benefit of officers or directors.

Our Certificate of Incorporation provides for indemnification as follows: “To the fullest extent permitted by applicable law, the Corporation is authorized to provide indemnification of, and advancement of expenses to, such agents of the Corporation (and any other persons to which Delaware law permits the Corporation to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the Delaware General Corporation Law, subject only to limits created by applicable Delaware law (statutory or non-statutory), with respect to actions for breach of duty to the Corporation, its stockholders and others.”

We have been advised that, in the opinion of the SEC, indemnification for liabilities arising under federal securities laws is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification for liabilities arising under federal securities laws, other than the payment by us of expenses incurred or paid by a director, officer or controlling person in the successful defense of any action, suit or proceeding, is asserted by a director, officer or controlling person in connection with our activities, we will (unless in the opinion of our counsel, the matter has been settled by controlling precedent) submit to a court of appropriate jurisdiction, the question whether indemnification by us is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue. The legal process relating to this matter if it were to occur is likely to be very costly and may result in us receiving negative publicity, either of which factors is likely to materially reduce the market and price for our shares.

Our Certificate of Incorporation contains a specific provision that limits the liability of our directors for monetary damages to us and our stockholders and requires us, under certain circumstances, to indemnify officers, directors and employees.

The limitation of monetary liability against our directors, officers and employees under Delaware law and the existence of indemnification rights to them may result in substantial expenditures by us and may discourage lawsuits against our directors, officers and employees.

Our Certificate of Incorporation contains a specific provision that limits the liability of our directors for monetary damages to us and our stockholders. We also have contractual indemnification obligations under our employment and engagement agreements with our executive officers and directors. The foregoing indemnification obligations could result in us incurring substantial expenditures to cover the cost of settlement or damage awards against our directors and officers, which we may be unable to recoup. These provisions and resultant costs may also discourage us from bringing a lawsuit against our directors and officers for breaches of their fiduciary duties and may similarly discourage the filing of derivative litigation by our stockholders against our directors and officers, even though such actions, if successful, might otherwise benefit us and our stockholders.

Our directors have the right to authorize the issuance of shares of preferred stock and additional shares of our common stock.

Our directors, within the limitations and restrictions contained in our Certificate of Incorporation and without further action by our stockholders, have the authority to issue shares of preferred stock from time to time in one or more series and to fix the number of shares and the relative rights, conversion rights, voting rights, and terms of redemption, liquidation preferences and any other preferences, special rights and qualifications of any such series. Any issuance of shares of preferred stock could adversely affect the rights of holders of our common stock. Should we issue additional shares of our common stock at a later time, each investor’s ownership interest in our stock would be proportionally reduced.

Anti-takeover provisions may impede the acquisition of the Company.

Certain provisions of the Delaware General Corporation Law (DGCL) have anti-takeover effects and may inhibit a non-negotiated merger or other business combination. These provisions are intended to encourage any person interested in acquiring control of us to negotiate with, and to obtain the approval of, our directors, in connection with such a transaction. As a result, certain of these provisions may discourage a future acquisition of our Company, including an acquisition in which the stockholders might otherwise receive a premium for their shares. In addition, we can also authorize “blank check” preferred stock, which could be issued by our Board without stockholder approval and may contain voting, liquidation, dividend and other rights superior to our common stock.

Compliance, Reporting and Listing Risks

We incur significant costs to ensure compliance with reporting and corporate governance requirements.

We incur significant costs associated with our public company reporting requirements and with applicable corporate governance requirements, including requirements under the Sarbanes-Oxley Act of 2002 (“Sarbanes-Oxley Act”) and other rules implemented by the SEC and Nasdaq. The rules of Nasdaq include requiring us to maintain independent directors, comply with other corporate governance requirements and pay annual listing and stock issuance fees. All of such SEC and Nasdaq obligations require a commitment of additional resources including, but not limited to, additional expenses, and may result in the diversion of our senior management’s time and attention from our day-to-day operations. We expect all of these applicable rules and regulations to significantly increase our legal and financial compliance costs and to make some activities more time consuming and costly. We also expect that these applicable rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified individuals to serve on our Board or as executive officers.

We will continue to incur increased costs as a result of being a reporting company, and given our limited capital resources, such additional costs may have an adverse impact on our profitability.

We are an SEC-reporting company. The rules and regulations under the Exchange Act require reporting companies to provide periodic reports with interactive data files, which require that we engage legal, accounting and auditing professionals, and eXtensible Business Reporting Language (XBRL) and EDGAR (Electronic Data Gathering, Analysis, and Retrieval) service providers. The engagement of such services can be costly, and we may continue to incur additional losses, which may adversely affect our ability to continue as a going concern. In addition, the Sarbanes-Oxley Act, as well as a variety of related rules implemented by the SEC, have required changes in corporate governance practices and generally increased the disclosure requirements of public companies. For example, as a result of being a reporting company, we are required to file periodic and current reports and other information with the SEC and we have adopted policies regarding disclosure controls and procedures and regularly evaluate those controls and procedures.

The additional costs we continue to incur in connection with being a reporting company (expected to be several hundred thousand dollars per year) will continue to further stretch our limited capital resources. Due to our limited resources, we have to allocate resources away from other productive uses in order to continue to comply with our obligations as an SEC reporting company. Further, there is no guarantee that we will have sufficient resources to continue to meet our reporting and filing obligations with the SEC as they come due.

We may not be able to comply with Nasdaq’s continued listing standards.

Our common stock and Public Warrants trade on Nasdaq under the symbols “ATNF” and “ATNFW,” respectively. Notwithstanding such listing, there can be no assurance any broker will be interested in trading our securities. Therefore, it may be difficult to sell your securities if you desire or need to sell them.

There is also no guarantee that we will be able to maintain our listings on Nasdaq for any period of time by perpetually satisfying Nasdaq’s continued listing requirements. Our failure to continue to meet these requirements may result in our securities being delisted from Nasdaq.

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Among the conditions required for continued listing on Nasdaq, Nasdaq requires us to maintain at least \$2.5 million in stockholders' equity, \$35 million of market value of listed securities, or \$500,000 in net income over the prior two years or two of the prior three years, to have a majority of independent directors, and to maintain a stock price over \$1.00 per share. Our stockholders' equity may not remain above Nasdaq's \$2.5 million minimum, our market value of listed securities may not remain above \$35,000,000, we may not generate over \$500,000 of yearly net income, we may not be able to maintain independent directors, and we may not be able to maintain a stock price over \$1.00 per share.

On January 5, 2021, we received a letter from Nasdaq that we were no longer in compliance with Nasdaq Listing Rules 5605(b)(1) and 5605(c)(2), which require that our Board be comprised of a majority of independent directors and that we have an audit committee consisting of at least three independent members, respectively. We subsequently remediated the issues identified in the letter from Nasdaq.

On April 16, 2021, we received a notice from Nasdaq stating that we were not in compliance with Nasdaq Listing Rule 5250(c)(1) because we had not yet filed the 2020 Annual Report with the SEC by the required date such filing was due. We subsequently remediated the issues identified in the letter from Nasdaq.

On May 19, 2021, we received another notice from Nasdaq stating that we were not in compliance with Nasdaq Listing Rule 5250(c)(1) because we had not yet filed our Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 with the SEC. We subsequently remediated the issues identified in the letter from Nasdaq.

If we fail to comply with Nasdaq rules and requirements, our stock may be delisted. In addition, even if we demonstrate compliance with the requirements above, we will have to continue to meet other objective and subjective listing requirements to continue to be listed on Nasdaq. Delisting from Nasdaq could make trading our common stock and/or Public Warrants more difficult for investors, potentially leading to declines in our share price and liquidity. Without a Nasdaq listing, stockholders may have a difficult time getting a quote for the sale or purchase of our stock, the sale or purchase of our stock would likely be made more difficult and the trading volume and liquidity of our stock could decline. Delisting from Nasdaq could also result in negative publicity and could also make it more difficult for us to raise additional capital. The absence of such a listing may adversely affect the acceptance of our common stock and/or Public Warrants as currency or the value accorded by other parties. Further, if we are delisted, we would also incur additional costs under state blue sky laws in connection with any sales of our securities. These requirements could severely limit the market liquidity of our common stock and/or Public Warrants and the ability of our stockholders to sell our common stock and/or Public Warrants in the secondary market. If our common stock and/or Public Warrants are delisted by Nasdaq, our common stock and/or Public Warrants may be eligible to trade on an over-the-counter quotation system, such as the OTCQB Market, where an investor may find it more difficult to sell our stock or obtain accurate quotations as to the market value of our common stock and/or Public Warrants. In the event our common stock and/or Public Warrants are delisted from Nasdaq, we may not be able to list our common stock and/or Public Warrants on another national securities exchange or obtain quotation on an over-the counter quotation system.

We have identified material weaknesses in our disclosure controls and procedures and internal control over financial reporting. If not remediated, our failure to establish and maintain effective disclosure controls and procedures and internal control over financial reporting could result in material misstatements in our financial statements and a failure to meet our reporting and financial obligations, each of which could have a material adverse effect on our financial condition and the trading price of our common stock.

Maintaining effective internal control over financial reporting and effective disclosure controls and procedures are necessary for us to produce reliable financial statements. We had previously identified the following material weaknesses related to (i) our financial reporting systems, (ii) our segregation of duties; (iii) policies and procedures for accounting and financial reporting; and (iv) our controls over period end financial disclosure and reporting processes, each of which existed as of December 31, 2020:

As a result of certain corrective actions, our management concluded that the material weaknesses related to clauses (ii) and (iii) above have been remediated as of December 31, 2021. Our management also concluded that, as of December 31, 2021, the material weaknesses related to clauses (i) and (iv) above have not been remediated, though the material weakness related to clause (iv) has been narrowed to specific areas due to certain corrective actions taken.

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. A control deficiency exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis.

Maintaining effective disclosure controls and procedures and effective internal control over financial reporting are necessary for us to produce reliable financial statements and we are committed to remediating our material weaknesses in such controls as promptly as possible. However, there can be no assurance as to when these material weaknesses will be remediated or that additional material weaknesses will not arise in the future. Any failure to remediate the material weaknesses, or the development of new material weaknesses in our internal control over financial reporting, could result in material misstatements in our financial statements and cause us to fail to meet our reporting and financial obligations, which in turn could have a material adverse effect on our financial condition and the trading price of our common stock, and/or result in litigation against us or our management. In addition, even if we are successful in strengthening our controls and procedures, those controls and procedures may not be adequate to prevent or identify irregularities or facilitate the fair presentation of our financial statements or our periodic reports filed with the SEC.

We may experience adverse impacts on our reported results of operations as a result of adopting new accounting standards or interpretations.

Our implementation of and compliance with changes in accounting rules, including new accounting rules and interpretations, could adversely affect our reported financial position or operating results or cause unanticipated fluctuations in our reported operating results in future periods.

Risks Relating to The JOBS Act

The JOBS Act allows us to postpone the date by which we must comply with certain laws and regulations and to reduce the amount of information provided in reports filed with the SEC. We cannot be certain if the reduced disclosure requirements applicable to “emerging growth companies” will make our common stock less attractive to investors.

We are and we will remain an “emerging growth company” until the earliest to occur of (i) the last day of the fiscal year during which our total annual revenues equal or exceed \$1.07 billion (subject to adjustment for inflation), (ii) the last day of the end of our 2022 fiscal year (5 years from our first public offering), (iii) the date on which we have, during the previous three-year period, issued more than \$1 billion in non-convertible debt, or (iv) the date on which we are deemed a “large accelerated filer” (with at least \$700 million in public float) under the Exchange Act. For so long as we remain an “emerging growth company” as defined in the JOBS Act, we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not “emerging growth companies” as described in further detail in the risk factors below. We cannot predict if investors will find our common stock less attractive because we will rely on some or all of these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. If we avail ourselves of certain exemptions from various reporting requirements, as is currently our plan, our reduced disclosure may make it more difficult for investors and securities analysts to evaluate us and may result in less investor confidence.

Our election not to opt out of the JOBS Act extended accounting transition period may not make our financial statements easily comparable to other companies.

Pursuant to the JOBS Act, as an “emerging growth company”, we can elect to opt out of the extended transition period for any new or revised accounting standards that may be issued by the Public Company Accounting Oversight Board (“PCAOB”) or the SEC. We have elected not to opt out of such extended transition period which means that when a standard is issued or revised and it has different application dates for public or private companies, we, as an “emerging growth company”, can adopt the standard for the private company. This may make a comparison of our financial statements with any other public company which is not either an “emerging growth company” nor an “emerging growth company” which has opted out of using the extended transition period, more difficult or impossible as possible different or revised standards may be used.

The JOBS Act also allows us to postpone the date by which we must comply with certain laws and regulations intended to protect investors and to reduce the amount of information provided in reports filed with the SEC.

The JOBS Act is intended to reduce the regulatory burden on “emerging growth companies”. We meet the definition of an “emerging growth company” and so long as we qualify as an “emerging growth company,” we will, among other things:

- be exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that our independent registered public accounting firm provide an attestation report on the effectiveness of our internal control over financial reporting;
- be exempt from the “say on pay” provisions (requiring a non-binding stockholder vote to approve compensation of certain executive officers) and the “say on golden parachute” provisions (requiring a non-binding stockholder vote to approve golden parachute arrangements for certain executive officers in connection with mergers and certain other business combinations) of The Dodd — Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) and certain disclosure requirements of the Dodd-Frank Act relating to compensation of Chief Executive Officers;
- be permitted to omit the detailed compensation discussion and analysis from proxy statements and reports filed under the Exchange Act and instead provide a reduced level of disclosure concerning executive compensation; and
- be exempt from any rules that may be adopted by the PCAOB requiring mandatory audit firm rotation or a supplement to the auditor’s report on the financial statements.

We currently intend to take advantage of all of the reduced regulatory and reporting requirements that will be available to it so long as it qualifies as an “emerging growth company”. We have elected not to opt out of the extension of time to comply with new or revised financial accounting standards available under Section 102(b) (1) of the JOBS Act. Among other things, this means that our independent registered public accounting firm will not be required to provide an attestation report on the effectiveness of our internal control over financial reporting so long as it qualifies as an “emerging growth company”, which may increase the risk that weaknesses or deficiencies in the internal control over financial reporting go undetected. Likewise, so long as it qualifies as an “emerging growth company”, we may elect not to provide certain information, including certain financial information and certain information regarding compensation of executive officers, which it would otherwise have been required to provide in filings with the SEC, which may make it more difficult for investors and securities analysts to evaluate us. As a result, investor confidence in us and the market price of our common stock may be adversely affected.

Notwithstanding the above, we are also currently a “smaller reporting company”, meaning that we are not an investment company, an asset-backed issuer, or a majority-owned subsidiary of a parent company that is not a smaller reporting company and have a public float of less than \$250 million and/or less than \$100 million in annual revenues and a total public float less than \$700 million during the most recently completed fiscal year. In the event that we are still considered a “smaller reporting company”, at such time as we cease being an “emerging growth company”, the disclosure we will be required to provide in our SEC filings will increase, but will still be less than it would be if we were not considered either an “emerging growth company” or a “smaller reporting company”. Specifically, similar to “emerging growth companies”, “smaller reporting companies” are able to provide simplified executive compensation disclosures in their filings; are exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that independent registered public accounting firms provide an attestation report on the effectiveness of internal control over financial reporting; and have certain other decreased disclosure obligations in their SEC filings, including, among other things, only being required to provide two years of audited financial statements in annual reports. Decreased disclosures in our SEC filings due to our status as an “emerging growth company” or “smaller reporting company” may make it harder for investors to analyze our results of operations and financial prospects.

General Risk Factors

Provisions in our Certificate of Incorporation and Delaware law may inhibit a takeover of us, which could limit the price investors might be willing to pay in the future for our common stock and could entrench management.

Our Certificate of Incorporation contains provisions that may discourage unsolicited takeover proposals that stockholders may consider to be in their best interests. These provisions include a staggered board of directors and the ability of our Board to designate the terms of and issue new series of preferred shares, which may make it more difficult for the removal of management and may discourage transactions that otherwise could involve payment of a premium over prevailing market prices for our securities. We are also subject to anti-takeover provisions under Delaware law, which could delay or prevent a change of control of the Company. Together, these provisions may make it more difficult for the removal of management and may discourage transactions that otherwise could involve payment of a premium over prevailing market prices for our securities.

Failure to adequately manage our planned aggressive growth strategy may harm our business or increase our risk of failure.

For the foreseeable future, we intend to pursue an aggressive growth strategy for the expansion of our operations through increased product development and marketing. Our ability to rapidly expand our operations will depend upon many factors, including our ability to work in a regulated environment, market value-added products effectively to independent pharmacies, establish and maintain strategic relationships with suppliers, and obtain adequate capital resources on acceptable terms. Any restrictions on our ability to expand may have a materially adverse effect on our business, results of operations, and financial condition. Accordingly, we may be unable to achieve our targets for sales growth, and our operations may not be successful or achieve anticipated operating results.

Additionally, our growth may place a significant strain on our managerial, administrative, operational, and financial resources and our infrastructure. Our future success will depend, in part, upon the ability of our senior management to manage growth effectively. This will require us to, among other things:

- implement additional management information systems;
- further develop our operating, administrative, legal, financial, and accounting systems and controls;
- hire additional personnel;
- develop additional levels of management within our company;
- locate additional office space;
- maintain close coordination among our engineering, operations, legal, finance, sales and marketing, and client service and support organizations; and
- manage our expanding international operations.

As a result, we may lack the resources to deploy our services on a timely and costeffective basis. Failure to accomplish any of these requirements could impair our ability to deliver services in a timely fashion or attract and retain new customers.

Our proprietary information, or that of our customers, suppliers and business partners, may be lost or we may suffer security breaches.

In the ordinary course of our business, we expect to collect and store sensitive data, including valuable and commercially sensitive intellectual property, clinical trial data, our proprietary business information and that of our future customers, suppliers and business partners, and personally identifiable information of our customers, clinical trial subjects and employees, patients, in our data centers and on our networks. The secure processing, maintenance and transmission of this information is critical to our operations. Despite our security measures, our information technology and infrastructure may be vulnerable to attacks by hackers or breached due to employee error, malfeasance or other disruptions. Any such breach could compromise our networks and the information stored there could be accessed, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information could result in legal claims

or proceedings, liability under laws that protect the privacy of personal information, regulatory penalties, disrupt our operations, damage our reputation, and cause a loss of confidence in our products and our ability to conduct clinical trials, which could adversely affect our business and reputation and lead to delays in gaining regulatory approvals for our future product candidates. Although we maintain business interruption insurance coverage, our insurance might not cover all losses from any future breaches of our systems.

Failure of our information technology systems, including cybersecurity attacks or other data security incidents, could significantly disrupt the operation of our business.

Our business increasingly depends on the use of information technologies, which means that certain key areas such as research and development, production and sales are to a large extent dependent on our information systems or those of third-party providers. Our ability to execute our business plan and to comply with regulators' requirements with respect to data control and data integrity, depends, in part, on the continued and uninterrupted performance of our information technology systems, or IT systems and the IT systems supplied by third-party service providers. As information systems and the use of software and related applications by our company, our business partners, suppliers, and customers become more cloud-based, there has been an increase in global cybersecurity vulnerabilities and threats, including more sophisticated and targeted cyber-related attacks that pose a risk to the security of our information systems and networks and the confidentiality, availability and integrity of data and information. In addition, our IT systems are vulnerable to damage from a variety of sources, including telecommunications or network failures, malicious human acts and natural disasters. Moreover, despite network security and backup measures, some of our servers are potentially vulnerable to physical or electronic break-ins, computer viruses and similar disruptive problems. Despite the precautionary measures we and our third-party service providers have taken to prevent unanticipated problems that could affect our IT systems, a successful cybersecurity attack or other data security incident could result in the misappropriation and/or loss of confidential or personal information, create system interruptions, or deploy malicious software that attacks our systems. It is also possible that a cybersecurity attack might not be noticed for some period of time. In addition, sustained or repeated system failures or problems arising during the upgrade of any of our IT systems that interrupt our ability to generate and maintain data, and in particular to operate our proprietary technology platform, could adversely affect our ability to operate our business. The occurrence of a cybersecurity attack or incident could result in business interruptions from the disruption of our IT systems, or negative publicity resulting in reputational damage with our stockholders and other stakeholders and/or increased costs to prevent, respond to or mitigate cybersecurity events. In addition, the unauthorized dissemination of sensitive personal information or proprietary or confidential information could expose us or other third-parties to regulatory fines or penalties, litigation and potential liability, or otherwise harm our business.

We may acquire other companies which could divert our management's attention, result in additional dilution to our stockholders and otherwise disrupt our operations and harm our operating results.

We may in the future seek to acquire businesses, products or technologies that we believe could complement or expand our product offerings, enhance our technical capabilities or otherwise offer growth opportunities. The pursuit of potential acquisitions may divert the attention of management and cause us to incur various expenses in identifying, investigating and pursuing suitable acquisitions, whether or not they are consummated. If we acquire additional businesses, we may not be able to integrate the acquired personnel, operations and technologies successfully, effectively manage the combined business following the acquisition or realize anticipated cost savings or synergies. We also may not achieve the anticipated benefits from the acquired business due to a number of factors, including:

- incurrence of acquisition-related costs;
- diversion of management's attention from other business concerns;
- unanticipated costs or liabilities associated with the acquisition;
- harm to our existing business relationships with collaboration partners as a result of the acquisition;
- harm to our brand and reputation;
- the potential loss of key employees;

- use of resources that are needed in other parts of our business; and
- use of substantial portions of our available cash to consummate the acquisition.

In the future, if our acquisitions do not yield expected returns, we may be required to take charges to our operating results arising from the impairment assessment process. Acquisitions may also result in dilutive issuances of equity securities or the incurrence of debt, which could adversely affect our operating results. In addition, if an acquired business fails to meet our expectations, our business, results of operations and financial condition may be adversely affected.

If we make any acquisitions, they may disrupt or have a negative impact on our business.

If we make acquisitions in the future, funding permitting, which may not be available on favorable terms, if at all, we could have difficulty integrating the acquired company's assets, personnel and operations with our own. We do not anticipate that any acquisitions or mergers we may enter into in the future would result in a change of control of the Company. In addition, the key personnel of the acquired business may not be willing to work for us. We cannot predict the effect expansion may have on our core business. Regardless of whether we are successful in making an acquisition, the negotiations could disrupt our ongoing business, distract our management and employees and increase our expenses. In addition to the risks described above, acquisitions are accompanied by a number of inherent risks, including, without limitation, the following:

- the difficulty of integrating acquired products, services or operations;
- the potential disruption of the ongoing businesses and distraction of our management and the management of acquired companies;
- difficulties in maintaining uniform standards, controls, procedures and policies;
- the potential impairment of relationships with employees and customers as a result of any integration of new management personnel;
- the potential inability or failure to achieve additional sales and enhance our customer base through cross-marketing of the products to new and existing customers;
- the effect of any government regulations which relate to the business acquired;
- potential unknown liabilities associated with acquired businesses or product lines, or the need to spend significant amounts to retool, reposition or modify the marketing and sales of acquired products or operations, or the defense of any litigation, whether or not successful, resulting from actions of the acquired company prior to our acquisition; and
- potential expenses under the labor, environmental and other laws of various jurisdictions.

Our business could be severely impaired if and to the extent that we are unable to succeed in addressing any of these risks or other problems encountered in connection with an acquisition, many of which cannot be presently identified. These risks and problems could disrupt our ongoing business, distract our management and employees, increase our expenses and adversely affect our results of operations.

We may apply working capital and future funding to uses that ultimately do not improve our operating results or increase the value of our securities.

In general, we have complete discretion over the use of our working capital and any new investment capital we may obtain in the future. Because of the number and variety of factors that could determine our use of funds, our ultimate expenditure of funds (and their uses) may vary substantially from our current intended operating plan for such funds.

We intend to use existing working capital and future funding to support the development of our products and services, product purchases in our wholesale distribution division, the expansion of our marketing, or the support of operations to educate our customers. We will also use capital for market and network expansion, acquisitions, and general working capital purposes. However, we do not have more specific plans for the use and expenditure of our capital. Our management has broad discretion to use any or all of our available capital reserves. Our capital could be applied in ways that do not improve our operating results or otherwise increase the value of a stockholder's investment.

We have never paid or declared any dividends on our common stock.

We have never paid or declared any dividends on our common stock or preferred stock. Likewise, we do not anticipate paying, in the near future, dividends or distributions on our common stock. Any future dividends on common stock will be declared at the discretion of our Board and will depend, among other things, on our earnings, our financial requirements for future operations and growth, and other facts as we may then deem appropriate. Since we do not anticipate paying cash dividends on our common stock, return on your investment, if any, will depend solely on an increase, if any, in the market value of our common stock.

Stockholders may be diluted significantly through our efforts to obtain financing and satisfy obligations through the issuance of additional shares of our common stock.

Wherever possible, our Board will attempt to use non-cash consideration to satisfy obligations. In many instances, we believe that the non-cash consideration will consist of shares of our common stock or where shares are to be issued to our officers, directors and applicable consultants. Our Board has authority, without action or vote of the stockholders, but subject to Nasdaq rules and regulations (which generally require stockholder approval for any transactions which would result in the issuance of more than 20% of our then outstanding shares of common stock or voting rights representing over 20% of our then outstanding shares of stock), to issue all or part of the authorized but unissued shares of common stock. In addition, we may attempt to raise capital by selling shares of our common stock, possibly at a discount to market. These actions will result in dilution of the ownership interests of existing stockholders, which may further dilute common stock book value, and that dilution may be material. Such issuances may also serve to enhance existing management's ability to maintain control of the Company because the shares may be issued to parties or entities committed to supporting existing management.

Our growth depends in part on the success of our strategic relationships with third parties.

In order to grow our business, we anticipate that we will need to continue to depend on our relationships with third parties, including our technology providers. Identifying partners, and negotiating and documenting relationships with them, requires significant time and resources. Our competitors may be effective in providing incentives to third parties to favor their products or services, or utilization of, our products and services. In addition, acquisitions of our partners by our competitors could result in a decrease in the number of our current and potential customers. If we are unsuccessful in establishing or maintaining our relationships with third parties, our ability to compete in the marketplace or to grow our revenue could be impaired and our results of operations may suffer. Even if we are successful, we cannot assure you that these relationships will result in increased customer use of our products or increased revenue.

Claims, litigation, government investigations, and other proceedings may adversely affect our business and results of operations.

We are currently subject to, and expect to continue to be regularly subject to, actual and threatened claims, litigation, reviews, investigations, and other proceedings. In addition, we have filed lawsuits against certain parties for matters we discovered which related to KBL, prior to the Business Combination. Any of these types of proceedings may have an adverse effect on us because of legal costs, disruption of our operations, diversion of management resources, negative publicity, and other factors. Our current legal proceedings are described in "Note 12 — Commitments and Contingencies", under the heading "Litigation and Other Loss Contingencies", in the consolidated financial statements included herein beginning on page F-1. The outcomes of these matters are inherently unpredictable and subject to

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significant uncertainties. Determining legal reserves and possible losses from such matters involves judgment and may not reflect the full range of uncertainties and unpredictable outcomes. Until the final resolution of such matters, we may be exposed to losses in excess of the amount recorded, and such amounts could be material. Should any of our estimates and assumptions change or prove to have been incorrect, it could have a material effect on our business, consolidated financial position, results of operations, or cash flows. In addition, it is possible that a resolution of one or more such proceedings, including as a result of a settlement, could require us to make substantial future payments, prevent us from offering certain products or services, require us to change our business practices in a manner materially adverse to our business, requiring development of non-infringing or otherwise altered products or technologies, damaging our reputation, or otherwise having a material effect on our operations.

For all of the foregoing reasons and others set forth herein, an investment in our securities involves a high degree of risk.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This prospectus contains forward-looking statements under federal securities laws, including within the meaning of the Private Securities Litigation Reform Act of 1995. In some cases, you can identify forward-looking statements by the following words: “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “ongoing,” “plan,” “potential,” “predict,” “project,” “should,” or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. Forward-looking statements are not a guarantee of future performance or results, and will not necessarily be accurate indications of the times at, or by, which such performance or results will be achieved. Forward-looking statements are based on information available at the time the statements are made and involve known and unknown risks, uncertainties and other factors that may cause our results, levels of activity, performance or achievements to be materially different from the information expressed or implied by the forward-looking statements in this prospectus. Forward-looking statements include, but are not limited to, any statements that are not statements of current or historical facts. These statements are based on management’s current expectations, but actual results may differ materially due to various factors, including, but not limited to:

- our ability to execute our plans to develop, manufacture, distribute and market new drug products and the timing and costs of these development, manufacturing, distribution and marketing programs, including approval by the applicable regulatory authorities;
- our expectations regarding regulatory developments in the United States and foreign countries;
- our success in retaining or recruiting, or changes required in, our officers, key employees or directors;
- our potential ability to obtain additional financing to advance our business and the terms of any further financing, which may be highly dilutive and may include onerous terms;
- the continued impact of the COVID-19 pandemic on our business operations and our research and development initiatives;
- our estimates regarding expenses, future revenues and capital requirements;
- our estimates of the sufficiency of our existing capital resources combined with future anticipated cash flows to finance our operating requirements; and
- our ability to maintain our listing on Nasdaq.

Any forward-looking statements in this prospectus reflect our current views with respect to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of shares of our common stock in this offering. The selling stockholders will receive all of the proceeds from this offering. However, if all of the Original Warrants, the February PIPE Warrants, the August PIPE Warrants, the Alpha Settlement Warrants, the AGP Warrants and the Public Warrants that are covered by this prospectus are exercised for cash, we may receive proceeds of up to approximately \$390,575, \$11.3 million, \$16.3 million, \$176,750, \$336,114 and \$66.1 million, respectively. We cannot predict when, or if, the warrants will be exercised. It is possible that the warrants may expire and may never be exercised for cash. We intend to use any proceeds from the exercise of the warrants for general corporate and working capital purposes. Our management will have broad discretion over the use of proceeds from the exercise of the Original Warrants, the February PIPE Warrants, the August PIPE the Warrants, the Alpha Settlement Warrants, the AGP Warrants and the Public Warrants.

The selling stockholders will pay any underwriting discounts and commissions and expenses incurred by the selling stockholders for brokerage, accounting, tax or legal services or any other expenses incurred by the selling stockholders in disposing of the shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including all registration and filing fees, and fees and expenses of our counsel and our independent registered public accountants.

MARKET PRICE OF OUR COMMON STOCK AND RELATED STOCKHOLDER MATTERS

Market Information

Our common stock, Public Warrants, rights and units were previously listed on Nasdaq under the symbols “KBLM”, “KBLMW”, “KBLMR” and “KBLMU”, respectively. Our units commenced public trading on April 7, 2017 and our common stock, Public Warrants and rights each commenced separate public trading on May 2, 2017. Our units automatically separated into the component securities upon consummation of the Business Combination and, as a result, no longer trade as a separate security, and our common stock and Public Warrants began trading on Nasdaq under the symbols “ATNF” and “ATNFW,” respectively. Prior to the Closing, each unit consisted of one share of our common stock, one right convertible into 1/10th of one share of our common stock, and one warrant to purchase one half of one share of our common stock at an exercise price of \$11.50 per whole share.

Holders

As of May 4, 2022, there were 34,087,244 shares of common stock issued and outstanding held by 68 holders of record, and 11,153,908 shares of common stock underlying 17,155,158 warrants outstanding to purchase shares of our common stock, with a weighted average exercise price of \$9.06 per share, held by 17 holders of record.

Dividend Policy

We have never paid or declared any cash dividends on our common stock and do not anticipate paying cash dividends in the foreseeable future. We anticipate that we will retain all of our future earnings for use in the operation of our business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of our Board. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION
AND RESULTS OF OPERATION**

The following discussion and analysis of the results of operations and financial condition of our company should be read in conjunction with our consolidated financial statements and the notes to those consolidated financial statements that are included elsewhere in this prospectus. This Management's Discussion and Analysis of Financial Condition and Results of Operations (the "MD&A") contains statements that are forward-looking. See "Cautionary Statement Regarding Forward-Looking Information" above. Actual results could differ materially because of the factors discussed in "Risk Factors" elsewhere in this prospectus, and other factors that we may not know.

As of December 31, 2021, we had an accumulated deficit of \$68,682,286 and net loss for the year ended December 31, 2021 of \$20,324,648. As of December 31, 2021, we had a working capital deficit of \$8,498,193. The accompanying consolidated financial statements have been prepared assuming we will continue as a going concern. As we are not generating revenues, we need to raise a significant amount of capital in order to pay our debts and cover our operating costs. While we raised money in August 2021, there is no assurance that we will be able to raise additional needed capital or that such capital will be available under favorable terms.

We are subject to all the substantial risks inherent in the development of a new business enterprise within an extremely competitive industry. Due to the absence of a long-standing operating history and the emerging nature of the markets in which we compete, we anticipate operating losses until we can successfully implement our business strategy, which includes all associated revenue streams. We may never ever achieve profitable operations or generate significant revenues.

We currently have a minimum monthly cash requirement of approximately \$800,000. We believe that in the aggregate, we will require significant additional capital funding to support and expand the research and development and marketing of our products, fund future clinical trials, repay debt obligations, provide capital expenditures for additional equipment and development costs, payment obligations, office space and systems for managing the business, and cover other operating costs until our planned revenue streams from products are fully-implemented and begin to offset our operating costs, if ever.

Since our inception, we have funded our operations with the proceeds from equity and debt financings. We have experienced liquidity issues due to, among other reasons, our limited ability to raise adequate capital on acceptable terms. We have historically relied upon the issuance equity and promissory notes that are convertible into shares of our common stock to fund our operations and have devoted significant efforts to reduce that exposure. We anticipate that we will need to issue equity to fund our operations and repay our outstanding debt for the foreseeable future. If we are unable to achieve operational profitability or we are not successful in securing other forms of financing, we will have to evaluate alternative actions to reduce our operating expenses and conserve cash.

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. Accordingly, the consolidated financial statements do not include any adjustments relating to the recoverability of assets and classification of liabilities that might be necessary should we be unable to continue as a going concern. The consolidated financial statements included herein also include a going concern footnote.

Additionally, wherever possible, our Board will attempt to use non-cash consideration to satisfy obligations. In many instances, we believe that the non-cash consideration will consist of shares of our common stock, preferred stock or warrants to purchase shares of our common stock. Our Board has authority, without action or vote of the shareholders, but subject to Nasdaq rules and regulations (which generally require shareholder approval for any transactions which would result in the issuance of more than 20% of our then outstanding shares of common stock or voting rights representing over 20% of our then outstanding shares of stock), to issue all or part of the authorized but unissued shares of common stock, preferred stock or warrants to purchase such shares of common stock. In addition, we may attempt to raise capital by selling shares of our common stock, possibly at a discount to market in the future. These actions will result in dilution of the ownership interests of existing shareholders, may further dilute common stock book value, and that dilution may be material. Such issuances may also serve to enhance existing management's ability to maintain control of us, because the shares may be issued to parties or entities committed to supporting existing management.

Organization of MD&A

This MD&A is provided in addition to the accompanying consolidated financial statements and notes to assist readers in understanding our results of operations, financial condition, and cash flows. This MD&A is organized as follows:

- **Business Overview and Recent Events.** A summary of our business and certain material recent events.
- **Significant Financial Statement Components.** A summary of our significant financial statement components.
- **Results of Operations.** An analysis of our financial results comparing the twelve months ended December 31, 2021 and 2020.
- **Liquidity and Capital Resources.** An analysis of changes in our balance sheets and cash flows and discussion of our financial condition.
- **Critical Accounting Policies and Estimates.** Accounting policies and estimates that we believe are important to understanding the assumptions and judgments incorporated in our reported financial results and forecasts.

Business Overview and Recent Events

On November 6, 2020 (the “Closing Date”), the previously announced Business Combination was consummated following a special meeting of stockholders, where the stockholders of KBL considered and approved, among other matters, a proposal to adopt the Business Combination Agreement. Pursuant to the Business Combination Agreement, Merger Sub merged with 180, with 180 continuing as the surviving entity and becoming a wholly-owned subsidiary of KBL. As part of the Business Combination, KBL issued 17,500,000 shares of common stock and equivalents to the stockholders of 180, in exchange for all of the outstanding capital stock of 180. The Business Combination became effective November 6, 2020 and 180 filed a Certificate of Amendment of its Certificate of Incorporation in Delaware to change its name to 180 Life Corp., and KBL changed its name to 180 Life Sciences Corp.

This MD&A and the related financial statements for the year ended December 31, 2020 primarily covers the historical operations of 180 to the Closing Date (November 6, 2020) and then the combined operations of the two entities thereafter. The Business Combination was accounted for as a reverse recapitalization with the assets and liabilities of KBL being consolidated commencing with the Closing Date. Thus, the results of operations for the year ended December 31, 2020, only include the combined results after the Closing Date. See “Note 4 — Business Combination” to the accompanying Consolidated Financial Statements included at the end of this prospectus.

Following the Closing, we transitioned our operations to those of 180, which is a clinical stage biotechnology company headquartered in Palo Alto, California, focused on the development of therapeutics for unmet medical needs in chronic pain, inflammation, fibrosis and other inflammatory diseases, where anti-TNF therapy will provide a clear benefit to patients, by employing innovative research, and, where appropriate, combination therapy. We have three product development platforms:

- fibrosis and anti-tumor necrosis factor (“**TNF**”);
- drugs which are derivatives of cannabidiol (“**CBD**”); and
- alpha 7 nicotinic acetylcholine receptor (“ **α 7nAChR**”).

We have several future product candidates in development, including one product candidate which has recently completed a successful Phase 2b clinical trial in the United Kingdom for Dupuytren’s Contracture, a condition that affects the development of fibrous connective tissue in the palm of the hand. 180 was founded by scientists in the biotechnology and pharmaceutical sectors.

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We intend to invest resources to successfully complete the clinical programs that are underway, discover new drug candidates, and develop new molecules to build up on our existing pipeline to address unmet clinical needs. The product candidates are designed via a platform comprised of defined unit operations and technologies. This work is performed in a research and development environment that evaluates and assesses variability in each step of the process in order to define the most reliable production conditions.

We may rely on third-party contract manufacturing organizations (“CMOs”) and other third parties for the manufacturing and processing of the product candidates in the future. We believe the use of contract manufacturing and testing for the first clinical product candidates is cost-effective and has allowed us to rapidly prepare for clinical trials in accordance with our development plans. We expect that third-party manufacturers will be capable of providing and processing sufficient quantities of these product candidates to meet anticipated clinical trial demands.

COVID-19 Pandemic

The extent to which COVID-19 may impact our business will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the duration of the outbreak, travel restrictions and social distancing in the United States and other countries, business closures or business disruptions, and the effectiveness of actions taken in the United States and other countries to contain and treat the disease. Should the COVID-19 pandemic continue, our plans could be delayed or interrupted. The spread of COVID-19 has also created global economic uncertainty, which may cause partners, suppliers and potential customers to closely monitor their costs and reduce their spending budget. The foregoing could materially adversely affect the clinical trials, supply chain, financial condition and financial performance of our company.

Enrollment of patients in our clinical trials, maintaining patients in our ongoing clinical trials, doing follow up visits with recruited patients and collecting data have been, and may continue to be, delayed or limited as certain of our clinical trial sites limit their onsite staff or temporarily close as a result of the COVID-19 pandemic and ongoing government restrictions. In addition, patients may not be able or willing to visit clinical trial sites for dosing or data collection purposes due to limitations on travel and physical distancing imposed or recommended by federal or state governments or patients’ reluctance to visit the clinical trial sites during the pandemic. These factors resulting from the COVID-19 pandemic could delay or prevent the anticipated readouts from our clinical trials, which could ultimately delay or prevent our ability to generate revenues and could have a material adverse effect on our results of operations.

The follow-up for patient data and statistical analysis for our Phase 2b Dupuytren’s Contracture clinical trial was delayed as a result of COVID-19, but such follow-up and statistical analysis has now been completed, and on April 29, 2022, final results from the trial were published in *The Lancet Rheumatology*. The study demonstrated that the primary end point of nodule hardness and the secondary end point of nodule size on ultrasound scan were met with statistically significant differences. There were no treatment-related serious adverse events in the trial.

Close of Business Combination

On the Closing Date, we consummated the previously announced Business Combination following a special meeting of stockholders held on November 5, 2020, where the stockholders of the Company considered and approved, among other matters, a proposal to adopt the Business Combination Agreement (as amended, the “Business Combination Agreement”), dated as of July 25, 2019. Pursuant to the Business Combination Agreement, among other things, a subsidiary of the Company merged with and into 180, with 180 continuing as the surviving entity and a wholly-owned subsidiary of the Company (the “Merger”). The Merger became effective on November 6, 2020. The Business Combination was accounted for as a reverse recapitalization of 180. All of 180’s capital stock outstanding immediately prior to the merger was exchanged for (i) 15,736,348 shares of 180LS common stock, (ii) 2 shares of Class C and Class K Special Voting Shares exchangeable into 1,763,652 shares of 180LS common stock which are presented as outstanding in the accompanying Statement of Changes in Stockholders’ Equity (Deficiency) due to the reverse recapitalization. The Company’s 6,928,645 outstanding shares of common stock are presented as being issued on the date of the Business Combination.

Significant Financial Statement Components

Research and Development

To date, 180's research and development expenses have related primarily to discovery efforts and preclinical and clinical development of its three product platforms: fibrosis and anti-TNF; drugs which are derivatives of CBD, and $\alpha 7nAChR$. Research and development expenses consist primarily of costs associated with those three product platforms, which include:

- expenses incurred under agreements with 180's collaboration partners and third-party contract organizations, investigative clinical trial sites that conduct research and development activities on its behalf, and consultants;
- costs related to production of clinical materials, including fees paid to contract manufacturers;
- laboratory and vendor expenses related to the execution of preclinical and clinical trials;
- employee-related expenses, which include salaries, benefits and stock-based compensation; and
- facilities and other expenses, which include expenses for rent and maintenance of facilities, depreciation and amortization expense and other supplies.

We expense all research and development costs in the periods in which they are incurred. We accrue for costs incurred as services are provided by monitoring the status of each project and the invoices received from our external service providers. We adjust our accrual as actual costs become known. When contingent milestone payments are owed to third parties under research and development arrangements or license agreements, the milestone payment obligations are expensed when the milestone results are achieved.

Research and development activities are central to our business model. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. We expect that research and development expenses will increase over the next several years as clinical programs progress and as we seek to initiate clinical trials of additional product candidates. It is also expected that increased research and development expenses will be incurred as additional product candidates are selectively identified and developed. However, it is difficult to determine with certainty the duration and completion costs of current or future preclinical programs and clinical trials of product candidates.

The duration, costs and timing of clinical trials and development of product candidates will depend on a variety of factors that include, but are not limited to, the following:

- per patient trial costs;
- the number of patients that participate in the trials;
- the number of sites included in the trials;
- the countries in which the trials are conducted;
- the length of time required to enroll eligible patients;
- the number of doses that patients receive;
- the drop-out or discontinuation rates of patients;
- potential additional safety monitoring or other studies requested by regulatory agencies;
- the impact of COVID-19 on the length of our trials;
- the duration of patient follow-up; and
- the efficacy and safety profile of the product candidates.

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In addition, the probability of success for each product candidate will depend on numerous factors, including competition, manufacturing capability and commercial viability. We will determine which programs to pursue and fund in response to the scientific and clinical success of each product candidate, as well as an assessment of each product candidate's commercial potential.

Because the product candidates are still in clinical and preclinical development and the outcome of these efforts is uncertain, we cannot estimate the actual amounts necessary to successfully complete the development and commercialization of product candidates or whether, or when, we may achieve profitability. Due to the early-stage nature of these programs, we do not track costs on a project-by-project basis. As these programs become more advanced, we intend to track the external and internal cost of each program.

General and Administrative

General and administrative expenses consist primarily of salaries and other staff-related costs, including stock-based compensation for shares of common stock issued and options granted to founders, directors and personnel in executive, commercial, finance, accounting, legal, investor relations, facilities, business development and human resources functions and include vesting conditions.

Other significant general and administrative costs include costs relating to facilities and overhead costs, legal fees relating to corporate and patent matters, litigation, SEC filings, insurance, investor relations costs, fees for accounting and consulting services, and other general and administrative costs. General and administrative costs are expensed as incurred, and we accrue amounts for services provided by third parties related to the above expenses by monitoring the status of services provided and receiving estimates from our service providers and adjusting our accruals as actual costs become known.

It is expected that the general and administrative expenses will increase over the next several years to support our continued research and development activities, manufacturing activities, potential commercialization of our product candidates and the increased costs of operating as a public company. These increases are anticipated to include increased costs related to the hiring of additional personnel, developing commercial infrastructure, fees to outside consultants, lawyers and accountants, and increased costs associated with being a public company, as well as expenses related to services associated with maintaining compliance with Nasdaq listing rules and SEC requirements, insurance and investor relations costs.

Other Income

Other income primarily represents fees earned for research and development work performed for other companies, some of which are related parties.

Interest Expense

Interest expense consists primarily of interest expense related to debt instruments.

Gain (Loss) on Extinguishment of Convertible Notes

Gain (loss) on extinguishment of convertible notes represents the shortfall (excess) of the reacquisition cost of convertible notes as compared to their carrying value.

Change in Fair Value of Derivative Liabilities

Change in fair value of derivative liabilities represents the non-cash change in fair value of derivative liabilities during the reporting period. Gains resulting from change in fair value of derivative liabilities during the years ended December 31, 2021 and 2020, were driven by decreases in stock price during the period, resulting in a lower fair value of the underlying liability.

Offering Costs Allocated to Warrant Liabilities

Change in offering costs allocated to warrant liabilities represents placement agent fees and offering expenses which were allocated to the PIPE Warrants and expensed immediately as they are liability classified.

Change in Fair Value of Accrued Issuable Equity

Change in fair value of accrued issuable equity represents the non-cash change in fair value of accrued equity prior to its formal issuance.

Consolidated Results of Operations

For the Year Ended December 31, 2021 Compared to the Year Ended December 31, 2020

	For the Years Ended December 31,	
	2021	2020
Operating Expenses:		
Research and development	\$ 1,000,769	\$ 2,217,371
Research and development – related parties	2,947,536	75,633
General and administrative	11,230,118	3,169,260
General and administrative – related parties	462,580	185,848
Total Operating Expenses	15,641,003	5,648,112
Loss From Operations	(15,641,003)	(5,648,112)
Other (Expense) Income:		
Loss on sale and disposal of property and equipment	—	(37,174)
Gain on settlement of liabilities	926,829	—
Other income	(146,822)	15,334
Other income – related parties	—	240,000
Interest expense	(135,953)	(1,002,424)
Interest expense – related parties	(50,255)	(84,550)
Loss on extinguishment of convertible notes payable, net	(9,737)	(2,580,655)
Change in fair value of derivative liabilities	(4,677,388)	(1,816,309)
Change in fair value of accrued issuable equity	(9,405)	9,405
Offering costs allocated to warrant liabilities	(604,118)	—
Total Other Expense, Net	(4,706,849)	(5,256,373)
Loss Before Income Taxes	(20,347,852)	(10,904,485)
Income tax benefit	23,204	20,427
Net Loss	\$ (20,324,648)	\$ (10,884,058)

Research and Development

During the year ended December 31, 2021, we incurred research and development expenses of \$1,000,769 compared to \$2,217,371 incurred for the year ended December 30, 2020, representing a decrease of \$1,216,602 or 55%. The decrease includes a \$90,000 decrease in research and development expenses related to drug discovery services provided by Evotec International GmbH in connection with a research and development agreement, a reduction in consulting expenses for the Scientific Advisory Board of \$70,000, a decrease of \$260,000 in research and development expenses related to the agreements amended and entered into with Yissum during 2020 and a decrease of \$1,100,000 related to stock compensation paid to Yissum Research Development Company in 2020, offset by an increase in R&D tax credit of \$500,000.

Research and Development — Related Parties

During the year ended December 31, 2021, we incurred research and development expenses — related parties of \$2,947,536 compared to \$75,633 incurred for the year ended December 31, 2020, representing an increase of 2,871,903 or 3,797%. The increase includes related party consultation fees paid to Jagdeep Nanchahal for his research in the Phase 2b clinical trial for Dupuytren's Contracture (RIDDD) totaling \$800,000 and stock compensation expense paid to Mr. Nanchahal of approximately \$1,400,000 and an additional overall increase in stock compensation expense of approximately \$700,000.

General and Administrative

During the year ended December 31, 2021, we incurred general and administrative expenses of \$11,230,118 compared to \$3,169,260 incurred for the year ended December 31, 2020, representing an increase of \$8,060,858 or 254%. The increase is attributable to an increase in professional fees of \$2,800,000, which is comprised of legal fees of \$1,600,000, penalties related to late filing of the Form S-1 for the February 2021 Offering of \$525,000, fees of \$275,000 related to the EarlyBird Settlement (see Note 12 — Commitments and Contingencies to the accompanying Consolidated Financial Statements included at the end of this prospectus), and an increase in consulting fees of \$700,000, which was offset by decreases in audit fees and merger expenses totaling \$545,000. Salaries expense increased by approximately \$830,000 due to increases in salaries expense, vacation expense, bonus expense and employee benefits expense resulting from hiring of additional personnel and accrued but unpaid bonuses. Stock-based compensation expense increased by \$2,000,000 resulting from expense during 2021 for Directors and management. The prior year also had reversal of a bad debt provision of \$1,700,000, while 2021 had no bad debt expense and there was an increase in D&O insurance of \$1,100,000 for the year ended 2021.

General and Administrative — Related Parties

During the year ended December 31, 2021, we incurred general and administrative expenses — related parties of \$462,580 compared to \$185,848 incurred for the year ended December 31, 2020, representing an increase of \$276,732, or 149%. The increase is primarily related to bad debt expense of \$300,000 incurred in connection with a receivable from related parties.

Other (Expense) Income, Net

During the year ended December 31, 2021, we incurred other expenses, net of \$4,706,849 compared to \$5,256,373 for the year ended December 31, 2020, representing a decrease in other expenses of \$549,524 or 10%. The decrease was primarily due to an increase of \$2,861,079 in the change in fair value of derivative liabilities and an increase in warrant costs of \$604,118 due to the offering, offset by a gain on the settlement of liabilities of \$926,829 and a decrease in interest expense of \$864,988 due to convertible debt being converted to stock. During the year ended December 31, 2021, there was a loss on the extinguishment of convertible notes payable of \$9,737 compared to a loss of \$2,580,655 during the year ended December 31, 2020.

Liquidity and Capital Resources

As of December 31, 2021 and 2020, we had cash balances of \$8,224,508 and \$2,108,544, respectively, and working capital deficits of \$8,498,193 and \$17,406,356, respectively.

For the years ended December 31, 2021 and 2020, cash used in operating activities was \$19,371,428 and \$3,871,961, respectively. Our cash used in operations for the year ended December 31, 2021 was primarily attributable to our net loss of \$20,324,648, adjusted for non-cash expenses in the aggregate amount of \$9,760,161, as well as \$8,806,941 of net cash used in changes in the levels of operating assets and liabilities. A significant portion of cash used in operations during the year relates to \$4.8 million of non-recurring expenses associated with the business combination (see Note 4 to the accompanying Consolidated Financial Statements included at the end of this prospectus). Our cash used in operations for the year ended December 31, 2020 was primarily attributable to our net loss of \$10,884,058, adjusted for non-cash expenses in the aggregate amount of \$4,679,931, as well as \$2,332,166 of net cash provided by changes in the levels of operating assets and liabilities.

For the years ended December 31, 2021 and 2020, cash provided by investing activities was \$0 and \$14,490,724, respectively. Cash provided by investing activities during the year ended December 31, 2020 consisted of \$10,280,739 of cash withdrawn from a trust account in connection with the Business Combination, \$3,006,235 of cash acquired in the reverse recapitalization and \$1,203,750 of proceeds received from the collection of notes receivable.

For the years ended December 31, 2021 and 2020, cash provided by (used in) financing activities was \$25,411,919 and (\$8,733,927), respectively. Cash provided by financing activities during the year ended December 31, 2021 was comprised of proceeds from the sale of common stock and warrants of \$26,666,200 and proceeds from loans payable in the amount of \$1,618,443, partially offset by repayments of convertible debt and loans payable of (\$10,000) and (\$807,594), respectively, and offering costs paid of (\$2,055,130). The net cash used in financing activities during the year ended December 31, 2020 was due to payment of common stock redemptions in the amount of (\$9,006,493),

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repayments made to related parties in the amount of (\$201,859), and the repayment of loans in the amount of (\$72,843), partially offset by sources of cash from the net proceeds from the sale of common stock in the amount of \$72,500 and proceeds from loans and convertible notes in the amount of \$474,768.

Our product candidates may never achieve commercialization and we anticipate that we will continue to incur losses for the foreseeable future. We expect that our research and development expenses, general and administrative expenses, and capital expenditures will continue to increase. As a result, until such time, if ever, as we are able to generate substantial product revenue, we expect to finance our cash needs through a combination of equity offerings, debt financings or other capital sources, including potentially collaborations, licenses and other similar arrangements, which may not be available on favorable terms, if at all. The sale of additional equity or debt securities, if accomplished, may result in dilution to our then stockholders. Our primary uses of capital are, and we expect will continue to be, compensation and related expenses, third-party clinical research and development services, license payments or milestone obligations that may arise, laboratory and related supplies, clinical costs, potential manufacturing costs, legal and other regulatory expenses and general overhead costs.

Our material cash requirements and time periods of such requirements from known contractual and other obligations include milestone and royalty payments related to license agreements with Oxford University and Yissum, payments related to the D&O insurance, payments to consultants and payments related to outside consulting firms, such as legal counsel, auditors, accountants, etc. These cash requirements, in the aggregate, amount to approximately \$7,100,000 for 2022 and \$33,400,000 for the years 2023 through 2026.

Further, our operating plans may change, and we may need additional funds to meet operational needs and capital requirements for clinical trials and other research and development activities. We currently have no credit facility or committed sources of capital. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, we are unable to estimate the amounts of increased capital outlays and operating expenditures associated with our current and anticipated product development programs.

We have not yet achieved profitability and expect to continue to incur cash outflows from operations. It is expected that our research and development and general and administrative expenses will continue to increase and, as a result, we will eventually need to raise additional capital to fund our operations. If we are unable to obtain adequate funds on reasonable terms, we may be required to significantly curtail or discontinue operations or obtain funds by entering into financing agreements on unattractive terms. Our operating needs include the planned costs to operate our business, including amounts required to fund working capital and capital expenditures. As of December 31, 2021, the conditions outlined above indicated that there was a substantial doubt about our ability to continue as a going concern within one year after the financial statement issuance date. However, in August 2021, we raised additional capital of approximately \$13.88 million and with current cash on hand of \$6,045,848 as of March 28, 2022, we expect to be able to continue as a going concern through the third quarter of 2022.

Our condensed consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”), which contemplate our continuation as a going concern and the realization of assets and satisfaction of liabilities in the normal course of business. The carrying amounts of assets and liabilities presented in the condensed consolidated financial statements do not necessarily purport to represent realizable or settlement values. The condensed consolidated financial statements do not include any adjustment that might result from the outcome of this uncertainty.

Recent Financing and Settlement Transactions

Convertible Debt Conversions

From November 27, 2020 to February 5, 2021, the holders of our convertible promissory notes converted an aggregate of \$4,782,107 owed under such convertible notes into an aggregate of 1,986,751 shares of common stock, pursuant to the terms of such notes, as amended, at conversion prices of between \$2.00 and \$3.29 per share.

During the third quarter of 2021, certain noteholders elected to convert certain convertible notes payable with an aggregate principal balance of \$1,234,334 and an aggregate accrued interest balance of \$105,850 into an aggregate of 467,123 shares of our common stock at conversion prices ranging from \$2.45 to \$3.29 per share. The shares issued upon the conversion of the convertible promissory notes had a fair value at issuance of \$1,941,125.

February 2021 Offering

On February 19, 2021, we entered into a Securities Purchase Agreement (the "February SPA") with a number of institutional investors (the "February 2021 Purchasers") pursuant to which we agreed to sell to the February 2021 Purchasers an aggregate of 2,564,000 shares of our common stock and warrants to purchase up to an aggregate of 2,564,000 shares of our common stock (the "February PIPE Warrants"), at a combined purchase price of \$4.55 per Share and accompanying February PIPE Warrant (the "February Offering"). Aggregate gross proceeds from the February Offering were approximately \$11.7 million, prior to deducting placement agent fees and estimated offering expenses payable by us. Net proceeds to us from the February Offering, after deducting the placement agent fees and offering expenses payable by us, were approximately \$10.8 million. The February Offering closed on February 23, 2021.

Maxim Group LLC (the "Placement Agent") acted as exclusive placement agent in connection with the February Offering pursuant to an Engagement Letter between us and the Placement Agent dated January 26, 2021 (as amended on February 18, 2021). Pursuant to the Engagement Letter, the Placement Agent received a commission equal to seven percent (7%) of the aggregate gross proceeds of the February SPA, or \$816,634.

Conversion of Bridge Notes

On March 8, 2021, the holders of our convertible bridge notes, which were issued in December 27, 2019 and January 3, 2020 to various purchasers, converted an aggregate of \$432,384, which included accrued interest of \$66,633 owed under such convertible bridge notes, into an aggregate of 158,383 shares of common stock pursuant to the terms of such notes, as amended, at a conversion price of \$2.73 per share.

Alliance Global Warrants

In connection with the closing of the Business Combination, we became obligated to assume five-year warrants for the purchase of 63,658 shares of common stock at an exercise price of \$5.28 per share (the "AGP Warrant Liability") that had originally been issued by KBL to an investment banking firm in connection with a prior private placement. On March 12, 2021, we issued the AGP Warrants to purchase up to an aggregate of 63,658 shares of common stock at an exercise price of \$5.28 per share, subject to adjustment, in full satisfaction of the AGP Warrant Liability. The purchase of shares pursuant to the AGP Warrant is limited at any given time not to exceed a beneficial ownership of 4.99% of the then total number of issued and outstanding shares of common stock. The warrant is exercisable at any time between May 2, 2021 and May 2, 2025.

EarlyBird Settlement Agreement

On April 23, 2021, we settled the amounts due pursuant to a certain finder agreement entered into with EarlyBird Capital, Inc. ("EarlyBird") on October 17, 2017 (the "Finder Agreement"). Our Board determined it was in the best interests to settle all claims which had been made or could be made with respect to the Finder Agreement and entered into the EarlyBird Settlement Agreement. Pursuant to the EarlyBird Settlement Agreement, we paid EarlyBird \$275,000 in cash and issued 225,000 shares of our restricted common stock with a grant date value of \$1,973,250 to EarlyBird, in full satisfaction of accounts payable in the amount of \$1,750,000. We recorded a loss of \$223,250 in connection with the EarlyBird Settlement Agreement, which is included in (loss) gain on settlement of liabilities in the accompanying condensed consolidated statements of operations.

Alpha Settlement Agreement

On July 31, 2021, we reached an agreement to settle the amounts allegedly due pursuant to a certain convertible note agreement entered into with Alpha Capital Anstalt ("Alpha") on September 8, 2020 (the "Alpha Note"). Our Board determined it was in our best interest to settle all claims which had been made or could be made with respect to the Alpha Note and entered into the Alpha Settlement Agreement. Pursuant to the Alpha Settlement Agreement, among other things, we issued to Alpha Capital Anstalt 150,000 shares of our common stock, as well as three-year warrants to purchase, on or prior to August 2, 2024, up to 25,000 shares of our common stock at an initial exercise price of \$7.07 per share of common stock (subject to adjustment as set forth therein, but not as a result of subsequent issuances of equity or equity-linked securities at prices below the then-effective exercise price) (the "Alpha Settlement Warrants").

August 2021 Offering

On August 23, 2021, we entered into a Securities Purchase Agreement (the “August SPA”) with certain purchasers (the “August Purchasers”), pursuant to which we agreed to sell an aggregate of 2,500,000 shares of common stock (the “August Shares”) and warrants to purchase up to an aggregate of 2,500,000 shares of common stock (the “August PIPE Warrants”), at a combined purchase price of \$6.00 per share and August PIPE Warrant (the “August Offering”). Aggregate gross proceeds from the offering were approximately \$15 million. Net proceeds to us from the offering, after deducting the placement agent fees and estimated offering expenses payable by us, were approximately \$13.9 million. The placement agent fees and offering expenses were accounted for as a reduction of additional paid in capital. The Placement Agent received a commission equal to seven percent (7%) of the aggregate gross proceeds of the Offering, or \$1,050,000. The August Offering closed on August 23, 2021.

In connection with the August Offering, we also entered into a Registration Rights Agreement, dated as of August 23, 2021, with the August Purchasers (the “August Registration Rights Agreement”). Pursuant to the August Registration Rights Agreement, we agreed to file a registration statement with the SEC on or prior to September 12, 2021 to register the resale of the August Shares and the shares of common stock issuable upon exercise of the August PIPE Warrants (the “August Warrant Shares”), and to cause such registration statement to be declared effective on or prior to October 22, 2021 (or, in the event of a “full review” by the SEC, November 21, 2021). The registration statement was filed with the SEC on August 31, 2021 and the SEC declared it effective on September 9, 2021.

Exchanges of Related Party Loans and Convertible Notes

On September 30, 2021, Dr. Lawrence Steinman and Sir Marc Feldmann, Ph.D., each of whom serves as an Executive Co-Chairman of our Board, agreed with us to convert amounts owed under outstanding loans with an aggregate principal balance of \$693,371 and an aggregate accrued interest balance of \$157,741 into an aggregate of 141,852 shares of our common stock at the conversion price of \$6.00 per share, pursuant to the terms of the agreement, which conversion rate was above the closing consolidated bid price of our common stock on the date the binding agreement was entered into. (See Note 10 — Loans Payable and Note 11 — Convertible Notes Payable of the financial statements for the fiscal period ended December 31, 2021 included in this prospectus for more information.)

Mintz Levin Settlement

In September 2021, we entered into a settlement agreement with Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (“Mintz”), whereby we agreed to pay \$800,000 to Mintz for legal services rendered. Mintz had billed us an aggregate of \$1,454,240 before factoring any interest charges. We recorded a gain of approximately \$650,000 after making payment pursuant to the settlement agreement.

Cantor Fitzgerald & Co. Litigation Settlement

On October 12, 2021, we and Cantor Fitzgerald & Co. entered into a settlement agreement, whereby we agreed to pay to Cantor \$200,000 in return for dismissal of the case against us. We sent the funds to Cantor on October 13, 2021. As of September 30, 2021, we recorded an accrual for the settlement amount as per the agreement.

On October 21, 2021, we received a notice of discontinuance and as a result, the matter between us and Cantor is settled and closed.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with accounting principles that are generally accepted in the United States. The preparation of these consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of our assets, liabilities, revenue and expenses. We have identified certain policies and estimates as critical to our business operations and the understanding of our past or present results of operations related to (i) goodwill and (ii) intangible assets and in-process research and development (“IPR&D”). These policies and estimates are considered critical because they had a material impact, or they have the potential to have a material impact, on our consolidated financial statements and because they require management to make significant judgments, assumptions or estimates. We believe that the estimates, judgments and assumptions made when accounting for the items described below were reasonable, based on information available at the time they were made. However, actual results may differ from those estimates, and these differences may be material.

Goodwill/Intangible Assets and In-Process Research and Development (“IPR&D”)

We have a significant amount of goodwill, intangible assets and IPR&D assets that are assessed at least annually for impairment. At December 31, 2021, goodwill, intangible assets and IPR&D assets totaled \$51.5 million, or 81%, of our total assets. The impairment analyses of these assets are considered critical because of their significance to us. Intangible assets arising from business combinations or acquisitions, such as goodwill, patents and IPR&D assets are initially recorded at estimated fair value. Licensed patents are amortized over the remaining life of the patent. IPR&D assets are considered to be indefinite-lived until the completion or abandonment of the associated research and development projects. Our goodwill was derived from acquisitions where the purchase price exceeded the fair value of the net assets acquired. We are required to reassign goodwill to reporting units whenever reorganizations of the internal reporting structure change the composition of our reporting units. We identified one reporting unit which represents our sole operating segment.

We are required to assess goodwill/intangible assets and IPR&D assets at least annually, or more frequently, if an event occurs or circumstances change that indicates it is more likely than not the fair value of our reporting unit was less than our carrying value. In assessing goodwill/intangible assets and IPR&D assets for impairment, we may first assess qualitative factors to determine whether it is more likely than not that the fair value of our reporting unit is less than our carrying value. For December 31, 2021, we elected to bypass the qualitative analysis and proceeded directly to the two-step test.

The first step of the goodwill/intangible assets and IPR&D assets impairment test used to identify potential impairment compares the fair value of the reporting unit with our carrying amount, including goodwill/intangible assets and IPR&D assets. We determined the fair market value of our single reporting unit as of December 31, 2021 to be our market capitalization of \$132,760,680, which represents \$3.90 per share (the market close price) multiplied by 34,021,200 shares (consisting of 34,035,925 shares of common stock plus 5,275 special voting shares which are exchangeable into common stock for no additional consideration) on December 31, 2021. The carrying amount of the reporting unit as of December 31, 2021 was \$40,207,861 (total assets of \$63.5 million less total liabilities of \$23.3 million).

Since our fair value (\$132,760,680) exceeded our carrying value (\$40,207,861) as of December 31, 2021, and our carrying value is greater than zero, management concluded the goodwill/intangible assets and IPR&D assets of the reporting unit was not impaired. We will continue to perform goodwill/intangible assets and IPR&D assets impairment testing on an annual basis, or as needed if there are changes to the composition of our reporting unit. For additional information on goodwill/intangible assets and IPR&D assets, see Note 3 — Summary of Significant Accounting Policies — Goodwill and Note 3 — Summary of Significant Accounting Policies — Intangible Assets and In-Process Research and Development of the financial statements for the fiscal period ended December 31, 2021 included in this prospectus for more information.

Derivative Liabilities

We evaluate our debt and equity issuances to determine if those contracts or embedded components of those contracts qualify as derivatives requiring separate recognition in our financial statements. At December 31, 2021, derivative liabilities totaled \$15.2 million, or 65%, of our total liabilities. The analyses of these liabilities are considered critical because of their significance to us. Entities must consider whether to classify contracts that may be settled in our own stock, such as warrants, as equity of the entity or as an asset or liability. If an event that is not within the entity’s control could require net cash settlement, then the contract should be classified as an asset or a liability rather than as equity.

The result of this accounting treatment is that the fair value of the embedded derivative is marked-to-market at each balance sheet date and recorded as a liability and the change in fair value is recorded in other (expense) income, net in the consolidated statements of operations. In circumstances where there are multiple embedded instruments that are required to be bifurcated, the bifurcated derivative instruments are accounted for as a single, compound derivative instrument. The classification of derivative instruments, including whether such instruments should be recorded as liabilities or as equity, is reassessed at the end of each reporting period. Equity instruments that are initially classified as equity that become subject to reclassification are reclassified to liability at the fair value of the instrument on the reclassification date. Derivative instrument liabilities are classified in the balance sheet as current or non-current based on whether or not net-cash settlement of the derivative instrument is expected within twelve months of the balance sheet date.

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If the embedded conversion options do not require bifurcation, we then evaluate for the existence of a beneficial conversion feature by comparing the fair value of our underlying stock as of the commitment date to the effective conversion price of the instrument (the intrinsic value).

We have computed the fair value of warrants, options, convertible notes and convertible preferred stock issued using the Monte-Carlo and Black-Scholes option pricing models. The expected term used for warrants, convertible notes and convertible preferred stock are the contractual life and the expected term used for options issued is the estimated period of time that options granted are expected to be outstanding. We utilize the “simplified” method to develop an estimate of the expected term of “plain vanilla” option grants. We are utilizing an expected volatility figure based on a review of the historical volatilities, over a period of time, equivalent to the expected life of the instrument being valued, of similarly positioned public companies within our industry. The risk-free interest rate was determined from the implied yields from U.S. Treasury zerocoupon bonds with a remaining term consistent with the expected term of the instrument being valued.

We evaluated the terms of our AGP Warrants (see Note 9 — Derivative Liabilities to the accompanying Consolidated Financial Statements included at the end of this prospectus) when they were originally earned and determined that the AGP Warrants should initially be liability-classified at their fair value at issuance with subsequent remeasurement (mark-to-market) at period ends. As of December 31, 2021, we had concluded that our warrants should remain liability-classified as of December 31, 2021 due to the presence of the Tender Offer Provision combined with the existence of the Exchangeable Shares that have voting rights consistent with common stockholders. For additional information on derivative liabilities, see Note 3 — Summary of Significant Accounting Policies — Derivative Liabilities to the accompanying Consolidated Financial Statements included at the end of this prospectus.

Recently Issued Accounting Pronouncements

See “Note 3 — Summary of Significant Accounting Policies” of our consolidated financial statements included within this prospectus for a summary of recently issued and adopted accounting pronouncements.

BUSINESS

We are a clinical stage biotechnology company headquartered in Palo Alto, California, focused on the development of therapeutics for unmet medical needs in chronic pain, inflammation and fibrosis by employing innovative research, and, where appropriate, combination therapy. We were founded by scientists in the biotechnology and pharmaceutical sectors. Prof. Sir Marc Feldmann, Prof. Lawrence Steinman, Prof. Raphael Mechoulam, Dr. Jonathan Rothbard, and Prof. Jagdeep Nanchahal have significant experience, and had previous success, in drug discovery. These scientists are from the University of Oxford (“Oxford”), Stanford University and Hebrew University of Jerusalem (the “Hebrew University”), and our management team has extensive experience in financing and growing early-stage healthcare companies.

We have three different product development platforms that are focused on different diseases or medical conditions, and that target different factors, molecules or proteins, as follows:

- Anti-TNF platform: focusing on fibrosis and anti-tumor necrosis factor (“anti-TNF”);
- SCAs platform: focusing on drugs which are synthetic cannabidiol (“CBD”) or cannabigerol (“CBG”) analogues (“SCAs”); and
- $\alpha 7nAChR$ platform: focusing on alpha 7 nicotinic acetylcholine receptor (“ $\alpha 7nAChR$ ”).

Our lead product candidate recently completed a successful Phase 2b clinical trial in the United Kingdom and the Netherlands for early-stage Dupuytren’s Contracture, a condition that affects the development of fibrous connective tissue in the palm of the hand. On April 29, 2022, final results from the trial were published in *The Lancet Rheumatology*. The study demonstrated that the primary end point of nodule hardness and the secondary end point of nodule size on ultrasound scan were met with statistically significant differences. There were no treatment-related serious adverse events in the trial.

Currently, we are conducting clinical trials only for certain indications under the anti-TNF platform. Of our three product development platforms, only one, the SCAs platform, involves products that are related to CBD (and not to cannabis or THC), and no clinical trials for any indications or products under the SCAs platform are currently being conducted in the United States or abroad. We are currently undertaking preclinical research and development activities for the SCA and the $\alpha 7nAChR$ platforms.

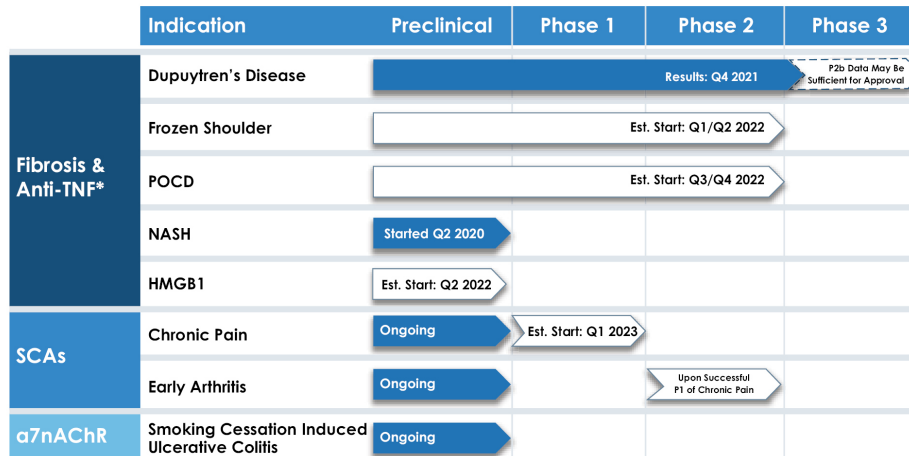
Business Strategy

Our goal is to capitalize on our research in chronic pain, inflammation and fibrosis by pursuing the following strategies:

- advance our clinical-stage product candidate for early-stage Dupuytren’s Contracture from its current late-stage development to seek and obtain approval in the United Kingdom, European Union and the United States for such product candidate, potentially commercialize the product candidate in the United Kingdom, European Union and United States and identify the optimal commercial pathway in other markets around the world;
- move our pre-clinical product candidates into clinical trials, seek and obtain approval in the United Kingdom, European Union and United States for such future product candidates, and potentially commercialize such future product candidates in the United States, United Kingdom and European Union;
- leverage our proprietary product development platforms to discover, develop and commercialize novel first-in-class products for the treatment of chronic pain, inflammation and fibrosis; and
- strengthen our position in research in chronic pain, inflammation and fibrosis.

Overview of Product Development Platforms

The following chart summarizes the products and indications, including those currently in clinical trial, for our three product development platforms.



“*Regulatory approvals obtained from the MHRA and CCMO and the relevant accredited ethics committees to perform clinical trials in the United Kingdom and The Netherlands. No meetings have been held with, and no applications or requests for approval have been submitted to the FDA for any products at this time.”

On April 29, 2022, final results from the trial were published in *The Lancet Rheumatology*. The study demonstrated that the primary end point of nodule hardness and the secondary end point of nodule size on ultrasound scan were met with statistically significant differences. There were no treatment-related serious adverse events in the trial.

The product development platforms are each described in more detail below.

Fibrosis & Anti-TNF Platform

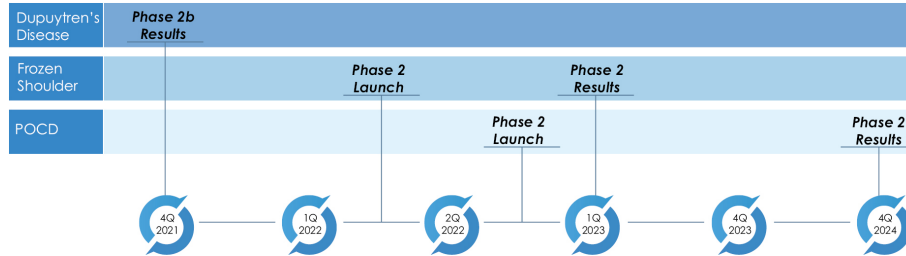
Our anti-TNF platform began at our wholly-owned subsidiary, 180 LP. This platform is focused on studying the molecular mechanism of inflammatory diseases and fibrosis and on the discovery of TNF as a mediator of fibrosis, as well as other immune-driven diseases. This research was first undertaken in the 1980s by our Co-Chairman, Prof. Sir Marc Feldmann, based on analysis of tissue from patients with rheumatoid arthritis (“RA”). We are applying this same approach to the analysis of human disease tissue from patients with active fibrosis, research led by Prof. Jagdeep Nanchahal in Oxford (who is also the Chairman of our Clinical Advisory Board), which has led to the identification of new therapeutic targets and approaches that we are developing. Profs. Nanchahal and Feldmann, in collaboration with other scientists, are leveraging their experience and expertise in developing anti-inflammatories to search for new applications for anti-TNF therapeutics. We are seeking to demonstrate that anti-TNF drugs, such as adalimumab, have a positive effect on new indications such as Dupuytren’s Contracture, frozen shoulder and post-operative cognitive dysfunction/delirium (“POCD”).

Our first product candidate in clinical development is for the potential treatment of early-stage fibrosis of the hand, Dupuytren’s Contracture, for which there is currently no approved treatment in the United Kingdom or European Union. Collagenase from *Clostridium histolyticum* has been approved in the USA for late-stage Dupuytren’s Contracture. The proposed treatment will be administered by a local injection of adalimumab, an anti-TNF antibody, into early-stage disease tissue. The results for the Phase 2a clinical trial for Dupuytren’s Contracture, supported by the Wellcome Trust, U.K. Department of Health and us, were published in July 2018. The study demonstrated positive tissue response indicative of anti-fibrotic mechanisms, as well as guiding dosing for follow-up trials. Having defined the most efficacious dose and preparation and based on these positive proof of concept data, we, together with the Wellcome Trust and the U.K. Department of Health, initiated a Phase 2b trial in patients with early-stage Dupuytren’s

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Contracture. The initial plan was to randomize 138 patients in a ratio of 1:1 to receive four injections of adalimumab or placebo at three-month intervals, and followed for a total of 18 months from baseline. With additional funding from the Wellcome Trust, the Phase 2b trial completed recruitment of 174 patients in April 2019, having commenced dosing in February 2017. The final patient was enrolled in April 2019. The Phase 2b clinical trial for early-stage Dupuytren's Contracture has been completed. On April 29, 2022, final results from the trial were published in *The Lancet Rheumatology*. The study demonstrated that the primary end point of nodule hardness and the secondary end point of nodule size on ultrasound scan were met with statistically significant differences. There were no treatment-related serious adverse events in the trial.

The following chart summarizes the timing of current and future clinical trials, based on current proposals, under the anti-TNF platform.



We have obtained regulatory approvals from the MHRA and CCMO, as well as from the relevant accredited ethics committees, in order to perform clinical trials in the United Kingdom and The Netherlands solely for indications under the anti-TNF platform. We have not held any meetings with, and no applications or requests for approval have been submitted to, the U.S. Food and Drug Administration (“[FDA](#)”) for any indications or products under the anti-TNF platform at this time.

HMGB1 Program

Our *HMGB1* program was recently formed with the in-licensing of the technology from the University of Oxford on November 2, 2021. Our *HMGB1* program falls under the Fibrosis and Anti-TNF Platform. We have identified *HMGB1* as a therapeutic target that acts on multiple endogenous adult stem cells to accelerate the physiological regenerative response to current or future injuries. These findings have broad relevance to the fields of stem cell biology and regenerative medicine and suggest a therapeutic approach to promote tissue repair such as in NASH liver regeneration.

The technology was developed by Prof. Jagdeep Nanchahal’s laboratory at the University Oxford prior to licensing. Due to the early stage of development of *HMGB1*, we are still in the process of assessing milestones and development timelines. The licensing of *HMGB1* included the lead development candidate for liver fibrosis.

No regulatory approvals have been sought or obtained from appropriate authorities at this time for any products or indications under the *HMGB1* platform.

SCAs Platform

Our SCAs platform began at our wholly-owned subsidiary, CBR Pharma with the collaborative work of its founders Prof. Mechoulam and Prof. Feldmann. This platform focuses on the development of synthetic pharmaceutical grade molecules close or distant analogs of non-psychoactive cannabinoids such as CBD for the treatment of inflammatory diseases and pain. These development efforts are a result of a 20-year collaboration between Prof. Feldmann, who discovered and commercialized anti-TNF therapy for treatment of RA and subsequently a number of inflammatory diseases, which is currently the best-selling drug class in the world, and Prof. Mechoulam, a world leading expert in cannabis chemistry who successfully identified THC, CBD and, subsequently, the endocannabinoids. We are working with a research team based at the Kennedy Institute at Oxford, consisting of Prof. Feldmann, Prof. Richard Williams and others, and a research team based at Hebrew University, consisting of Prof. Raphael Mechoulam, Prof. Avi Domb, Prof. Amnon Hoffman and others, to generate new drugs, test them, and optimize their uptake and delivery

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to disease targets. The aim is to develop novel, orally active analgesic and anti-inflammatory medications based on synthetic compounds to target chronic diseases. We term these synthetic compounds generically as “synthetic CBD analogs” (“SCAs”). Our primary development targets are arthritis and chronic and recurrent pain, while our secondary development targets are diabetes/diabetic neuropathy, fibromyalgia, multiple sclerosis, obesity and fatty liver disease.

The following chart summarizes the timing of current and future clinical trials, based on current proposals, under the SCAs platform.



No regulatory approvals have been sought or obtained from appropriate authorities at this time for any products or indications under the SCAs platform.

α 7nAChR Platform

Our α 7nAChR platform began at our wholly-owned subsidiary, Katexco, where its founders identified α 7nAChR as a key receptor for the amyloid proteins associated with diseases like Alzheimer’s and Parkinson’s Disease. α 7nAChR is expressed on the surface of both neuronal cells in the brain and on important cells of the immune system. The research conducted by Dr. Jonathan Rothbard and Prof. Steinman has shown that small molecules available as drugs taken by mouth can engage this receptor and potentially reduce inflammatory diseases. Dr. Rothbard and Prof. Steinman have also shown that α 7nAChR is critical in reducing disease animal models of multiple sclerosis and RA, as well as heart attack and stroke. Our α 7nAChR product development platform is currently focused on developing α 7nAChR agonists for the treatment of inflammatory diseases, initially ulcerative colitis induced after cessation of smoking.

No regulatory approvals have been sought or obtained from appropriate authorities at this time for any products or indications under the α 7nAChR platform.

Product Candidates

We are attempting to build a broad and diverse pipeline of product candidates in chronic pain, inflammation and fibrosis. Our product candidates are and will be selected for development based on: potential to address unmet medical needs; development feasibility as determined by our preclinical research and development efforts; potential to rapidly achieve proof-of-concept based on easy-to-measure validated regulatory endpoints; and significant commercial potential.

Anti-TNF Platform Dupuytren’s Contracture

Overview

Dupuytren’s Contracture, also referred to as hand fibrosis, is a progressive, incurable disease characterized by the development of fibrous cords in the palm of the hand, commonly affecting the ring and/or small finger and often multiple joints, leading to contracture and the inability to straighten the affected fingers. Symptoms, when presented to a physician, range from the appearance of nodules in the palm, which can be painless or painful and often disconcerting to the patient, to the loss of the use of the contracted finger. There are currently no approved treatment options for those patients who present with symptomatic, early-stage disease.

Surgery remains the standard treatment for patients with Dupuytren’s Contractures but is associated with extended recovery periods and risks of recurrence.

We are developing therapies by repurposing of the anti-TNF therapeutic adalimumab, previously approved and used under the brand name Humira for several autoimmune conditions, for the treatment of early-stage Dupuytren’s Contracture. Research at Oxford University has indicated an anti-TNF mechanism can slow or prevent the proliferation of myoblast cells that lead to the formation and growth of the fibrous nodules/cords in the palm and possible finger contracture. We have advanced the development program through Phase 2b clinical trials to evaluate the impact of multiple, intralesional injections on disease progression and functional improvement.

Dupuytren's patients who have advanced disease are primarily treated by orthopedic or plastic surgeons, who rely on invasive interventions when the contracture impacts hand function. Current treatment options include open surgeries (fasciotomies or fasciectomy) and the less invasive procedures of needle aponeurotomy (NA) or collagenase injections. The less invasive procedures are designed to disrupt the integrity of a contracted cord so the fingers can be straightened. Unfortunately, these options are associated with a high rate of recurrence. Dissatisfaction within the medical and Dupuytren patient community with outcomes for later-stage disease and the lack of options to intervene at an early/pre-contracture stage indicate there is an unmet medical need for early-stage intervention.

According to the Dupuytren's Foundation, Dupuytren's Contracture prevalence is estimated to be up to 7% of the U.S. population. Based on the Foundation's estimates, approximately three million patients have contractures that should be treated but only 10% to 20% of those patients are treated. Reasons for the lack of treatment may include the type of available interventions, poor long-term outcomes, and reimbursement hurdles.

In primary interviews in late 2021 with 8 orthopedic/plastic surgeons, conducted by Red Sky Partners (an independent third-party consulting firm) on our behalf and designed to better understand the unmet need for patients with Dupuytren's Contracture, revealed a strong desire among hand surgeons and patients to treat this condition early, before the development of late stage contractures, in a non-invasive manner that will limit further progression, preserve function and prevent or delay invasive surgery. Surgeons' reactions to the rationale for the use of adalimumab to address this unmet need were overall positive and the mechanistic concept of an anti-TNF compound was considered compelling. In the view of the majority of surveyed hand surgeons, the non-invasive, safe product profile would potentially position adalimumab as an important therapeutic option for a much wider range of patients than are typically treated today. Assuming clinical efficacy and safety are supported with published data, we believe that adalimumab would become an attractive alternative to surgery, needle aponeurotomy or collagenase. Further, we believe it has potential use in many early-stage patients who are not treated today.

Based on both primary (feedback from these physician interviews) and secondary research, Red Sky Partners concluded that an initial label focused on patients with a clear contracture where adalimumab would soften nodules and limit progression would be highly differentiated from current therapies and could generate revenues in the range of \$300 million to \$350 million annually in the United States. More significantly, the opportunity to offer a safe, non-invasive therapeutic leading to improved function could dramatically expand the treatable population as more patients seek treatment and more physicians are motivated to offer their patients an alternative to waiting to see if their disease progresses, which they cannot do today. This product positioning could generate a revenue opportunity two to three times the initial market opportunity.

Phase 2 Clinical Trials

Our wholly-owned subsidiary, 180 LP, contributed to the funding of a Phase 2a clinical trial for Dupuytren's Contracture along with the Wellcome Trust and the U.K. Department of Health, which using an experimental medicine clinical trial design demonstrated positive tissue response, and guided dosing and tolerability for follow-up trials. The data was published in June 2018.

For the Phase 2a trial, we recruited 28 patients, eight assigned to the 15 milligrams (mg), 12 to the 35 mg and eight to the 40 mg adalimumab cohorts. There was no change in mRNA levels for *ACTA2*, *COL1A1*, *COL3A1* and *CDH11*. Levels of α -SMA protein expression in patients treated with 40 mg adalimumab (1.09 ± 0.09 ng per μ g of total protein) were significantly lower ($p = 0.006$) compared to placebo treated patients (1.51 ± 0.09 ng/ μ g). The levels of procollagen type I protein expression were also significantly lower ($p = 0.019$) in the sub group treated with 40 mg adalimumab (474 ± 84 pg/ μ g total protein) compared with placebo (817 ± 78 pg/ μ g). There were two serious adverse events, both considered unrelated to the study drug. In this dose-ranging study, injection of 40 mg of adalimumab in 0.4 ml resulted in down regulation of the myofibroblast phenotype as evidenced by reduction in expression of α -SMA and type I procollagen proteins at two weeks.

Having defined the most efficacious dose and preparation and based on these positive proof-of-concept data, we, together with the Wellcome Trust and the U.K. Department of Health, initiated a Phase 2b trial in patients with early-stage Dupuytren's Contracture. The initial plan was to randomize 138 patients in a ratio of 1:1 to receive four injections of adalimumab or placebo at three-month intervals and followed for a total of 18 months from baseline. The Phase 2b trial, which was funded by grants from the Wellcome Trust and the U.K. Department of Health, with a contribution from 180 LP to purchase the drug, completed recruitment of 174 patients in April 2019 and commenced dosing in February 2017 in the United Kingdom and Groningen, The Netherlands.

The Phase 2b clinical trial for early-stage Dupuytren's Contracture has been completed. On April 29, 2022, final results from the trial were published in *The Lancet Rheumatology*. The study demonstrated that the primary end point of nodule hardness and the secondary end point of nodule size on ultrasound scan were met with statistically significant differences. Nodule hardness was lower in the anti-TNF treatment arm compared to placebo (-4.6AU; 95% CI -7.1 to -2.2; $p < 0.0002$) at 12 months and decreased further at 18 months (-5.8AU; 95% CI -8.7 to -3.0; $p < 0.0001$), 9 months after the last injection. Nodule size (area), measured using ultrasound scan, was also lower in the anti-TNF treatment arm compared to placebo at 12 months (-8.4mm²; 95% CI -13.8 to -2.9; $p < 0.0025$), and decreased further at 18 months (-14.4mm²; 95% CI -19.9 to -9.0; $p < 0.0001$). There were no treatment-related serious adverse events in the trial. Patient compliance was high, with 84% returning for all four injections. Fewer patients in the treatment group underwent or were awaiting surgery compared to placebo at 18 months; however, the overall numbers were small and longer-term follow up would be required to confirm this.

Other Product Candidates or Indications

In addition to the potential treatment, we are developing for Dupuytren's Contracture described above, we are seeking to repurpose anti-TNF for use as a treatment for other fibrotic conditions such as frozen shoulder. Prof. Feldmann's previous work in the 1980s demonstrated that anti-TNF is an effective anti-inflammatory with many possible uses, and it was subsequently approved for various forms of inflammatory arthritis and IBD, as well as other indications. This has since created what is currently the best-selling drug class in the world, anti-TNF therapeutics, which, according to Research and Markets, was valued at over \$40 billion in 2019. By using a well-known and extensively used therapeutic, adalimumab, the research and development process may be truncated because of existing product information relating to safety, as the drug has been widely used over the past 20 years in millions of patients.

Frozen Shoulder

Frozen shoulder, also referred to as adhesive capsulitis, is an extremely painful and debilitating condition that affects an individual's everyday activities, including sleep. Frozen shoulder is estimated to affect approximately 9% of the population in Western countries between the ages of 25 and 64 according to an article published in *Arthritis & Rheumatology* in 2004. In addition, approximately 20% of people suffering from a frozen shoulder will develop the same problem in their other shoulder. According to an article published in *Shoulder & Elbow* in 2010, it is estimated that up to 30% of patients with diabetes develop frozen shoulder, and the symptoms tend to be more persistent and recalcitrant in this group.

During the pain predominant inflammatory phase, patients are typically treated with analgesics, physiotherapy and corticosteroid injections. Patients with persistent stiffness may be referred to secondary care for capsular release by manipulation under anesthesia, hydrodilatation or surgical arthroscopy. To our knowledge, there is currently no approved targeted therapy, and in conjunction with the National Institute for Health Research (U.K.), we are investigating the feasibility of recruiting patients during the early pain-predominant inflammatory phase of the disease and delivery of a local injection of anti-TNF. The set-up stage for this Phase 2 clinical trial for the local injection of anti-TNF for frozen shoulder started in June 2021. A £250,000 grant has been awarded from NIHR to the University of Oxford to support execution and clinical trial sites are being identified. We will provide additional funding to support this trial. All the requisite regulatory approvals are in place and the investigators expect to administer the first patient for the frozen shoulder Phase 2 clinical trial in the first or second quarter of 2022.

Human Liver Fibrosis

Fibrosis of the liver is characterized by long-term damage to the organ caused by the replacement of normal liver tissue with scar tissue. The condition is most commonly caused by non-alcoholic fatty liver disease ("NAFLD"), which encompasses non-alcoholic fatty liver ("NFL") and non-alcoholic steatohepatitis ("NASH"). NAFLD affects approximately 30% of the U.S. population, according to an article published in *Nature Reviews Gastroenterology & Hepatology* in 2016. Approximately 2% of patients with NFL and approximately 15% to 20% of patients with NASH progress to cirrhosis, fibrosis of the liver with major health issues.

To our knowledge, there is no current approved treatment for individuals with NASH. We therefore believe that there is a large potential market for the creation of an effective preventative treatment. According to Allied Market Research, the market for treating liver fibrosis was approximately \$13 billion in 2018, and is projected to rise to approximately \$20 billion in 2022, rising at a compound annual growth rate of over 11% per year. We initiated preclinical studies for NASH based on human liver samples during the second quarter of 2020.

Post-operative Cognitive Decline (POCD)

POCD is a common neuropsychiatric syndrome, defined as disturbance of attention, awareness and cognition, which develops over a short period of time and tends to fluctuate during the course of the day. Patients with hip fracture are at particularly high risk of developing POCD. The United Kingdom's national audit data for 2018 showed that 25% of all patients with hip fracture suffered from delirium. POCD is associated with poor functional outcomes, reduced quality of life and longer hospital stays. People with hip fracture who developed delirium are twice as likely to die as inpatients, and nearly four times more likely to need placement in a nursing home. POCD has also been closely associated with long-term cognitive impairment.

Hip fractures are one of the main challenges facing elderly patients and healthcare systems. According to an article published in *The Lancet Public Health* in 2017, hip fractures are associated with an average loss of 2.7% of the healthy life expectancy in the middle-aged and older population in the United States and Europe. People suffering hip fracture have a mean age of 83 years, are frail, and two-thirds are women. They suffer a 30-day mortality of 7%, and experience a persistent reduction in their health-related quality-of-life similar to that of a diagnosis of Parkinson's disease or multiple sclerosis. According to various studies, POCD is developed in 13-40% of patients following cardiac surgery. With 500,000 open-heart surgeries and 450,000 hip surgeries in the USA each year, in advanced age patients, a beneficial therapy to treat POCD would be a significant benefit to these patients. We plan to initiate a Phase 2 study using anti-TNF for POCD during the second quarter of 2022. An issued patent to protect this potential use has been licensed from The Kennedy Trust for Rheumatology Research.

SCAs Platform

Overview

Cannabinoids are a class of compounds derived from cannabis plants. The two major cannabinoids contained in cannabis are CBD and THC. Although one cannabinoid, THC, is known to cause psychoactive effects associated with the use of herbal cannabis, no other cannabinoid is known to share these properties. In recent decades, there have been major scientific advances that have led to the discovery of new plant-derived cannabinoids and the endocannabinoid system. There are at least two types of cannabinoid receptors in the human endocannabinoid system, cannabinoid receptor 1 ("CB1") and cannabinoid receptor 2 ("CB2"). CB1 receptors are considered to be among the most widely expressed G protein-coupled receptors in the brain and are particularly abundant in areas of the brain concerned with movement and postural control, pain and sensory perception, memory, cognition, emotion, and autonomic and endocrine function. CB1 receptors are also found in peripheral tissues including peripheral nerves and non-neuronal tissues such as muscle, liver tissues and fat. CB2 receptors are expressed primarily in tissues in the immune system and are believed to mediate the immunological effects of cannabinoids. CBD does not interact with CB1 receptors and is only a weak agonist of CB2 receptors. CBD interacts with other important neurotransmitter and neuromodulatory systems in the human body, including transient receptor potential channels, adenosine uptake and serotonin receptors. The far-reaching and diverse pharmacology of the numerous cannabinoids provides significant potential for development of cannabinoid therapeutics across many indications and disease areas, but also adds to the complexity of the research.

For the SCA program, we have agreements in place with Hebrew University and Oxford, pursuant to which we intend to conduct research to develop and characterize novel SCAs for the treatment of certain target indications, and to perform early-phase clinical trials. Through the Research Agreements with Hebrew University and Oxford, we established research facilities at the Hebrew University and Oxford, in which the development and testing of new cannabinoids designed and synthesized at the Hebrew University will be facilitated. The labs at the Hebrew University, led by Prof. Mechoulam, will synthesize the chemical compounds and perform preliminary efficacy and safety studies.

Once these initial studies are completed at the Hebrew University, the chemical compounds are sent to Prof. Richard Williams at Oxford, where further evaluation is carried out to identify candidates which have the best potential for clinical efficacy and commercial development. Subsequently, we will support the clinical development of the lead compound(s), culminating in Phase 2 clinical trials to establish clinical utility in chronic pain and inflammatory indications.

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The initial focus of the research will be on the development of safe and welltolerated compounds with analgesic and immunomodulatory activity and with the capacity to synergize with current therapies, which primarily target downstream inflammatory processes. After conducting initial research and development, we will select the most promising of the chemical compounds to move into Phase 1 and 2 clinical trials, which we expect to commence by the third quarter of 2022.

Product Candidates or Indications

We believe that there are unmet needs for orally available, relatively safe anti-inflammatory drugs, especially those with analgesic properties. We believe that SCAs have the potential to fulfill these needs and we have started to develop novel, orally available and patentable drug candidates to treat certain diseases or conditions such as arthritis, multiple sclerosis, diabetes, psoriasis, obesity and fatty liver, and various painful conditions. Our work on SCAs is currently in the preclinical development stage.

Because medical cannabis is a complex mixture of compounds from plants, providing a consistent level of the active compound of interest or controlling the level of the other natural compounds is difficult. Accordingly, we are working on orally available SCAs, not derived from plants, to address the deleterious issues of medical cannabis described above. If successful, these SCAs could become approved drug products that offer a robustly consistent and safe dosage that allows patient intake to be carefully controlled.

We believe that the development and clinical study of SCAs will reveal that SCAs have several key advantages over medical cannabis, including:

- use of a pure compound (>99.5%) rather than a mixture of compounds;
- ability to test and control dosing, which in turn controls efficacy and side effect levels;
- creation of a reproducible product; and
- ability to engineer novel synthetic analogs to control binding preferences to select receptors, control agonist or antagonist effects of receptor binding (pharmacokinetics and dynamics), modify half-life of the drug in the body, and create pro-drug forms that are only activated in specified tissues, thereby potentially reducing off target side effects.

In addition to the above advantages, testing SCAs in scientific, double-blind clinical trials would help to allay physicians' concerns regarding the therapeutic use of marijuana-based compounds. This change could increase the number of patients that have access to these drug therapies. If clinical trials are successful, there are a number of potential markets and indications for SCAs which we could target, which include individuals suffering from chronic and recurrent pain, diabetes, osteoarthritis, obesity and fatty liver disease.

α 7nAChR Platform

Overview

Two of our lead scientists, Prof. Steinman and Dr. Rothbard, previously identified a key receptor for the amyloid proteins associated with diseases like Alzheimer's and Parkinson's disease, called α 7nAChR. The α 7nAChR is expressed on the surface of both neuronal cells in the brain and on cells of the immune system. The research conducted by Dr. Rothbard and Prof. Steinman has shown that small molecules available as drugs taken by mouth can engage this receptor and potently reduce inflammatory diseases. Dr. Rothbard and Prof. Steinman have shown that this receptor is critical in reducing disease in animal models of multiple sclerosis and RA, as well as heart attack and stroke.

Our efforts to understand the role of the high concentration of small heat shock proteins (" $sHsp$ ") found in the lesions in the brains of patients with multiple sclerosis led us to realize that the protein was (i) immune suppressive and (ii) therapeutic in animal 2 models of multiple sclerosis, cardiac and retinal ischemia, and stroke. A significant realization was that amyloid fibrils composed of proteins or small peptides exhibited biological responses equivalent to the $sHsps$. The fibrils and the $sHsps$ specifically bound and activated macrophages (" $M\Phi$ ") and regulatory B cells. Crosslinking and precipitation experiments demonstrated that both species bound nAChR and signaled through Jak2/Stat3. We realized that nicotine treatment of experimental autoimmune encephalomyelitis (" EAE ") induces an identical pattern of immune suppression as our treatments and exhibits pre-clinical efficacy that is comparable with

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many of the drugs that are approved for multiple sclerosis (MS) when they were tested in EAE models. Collectively, these observations have informed our strategy to develop an orally available, small molecule agonist of $\alpha 7$ nAChR for inflammation and autoimmune diseases.

The $\alpha 7$ subunit of $\alpha 7$ nAChR is an integral part of an endogenous immune suppressive pathway, in which activation of the vagus nerve stimulates acetylcholine secretion, which in turn binds $\alpha 7$ nAChR on M Φ s and regulatory B lymphocytes. Activation of the M Φ s initiates an immunosuppressive cascade of events that lead to reduction of pro-inflammatory cytokines, suppression of B and T cell activation and control of inflammation.

In autoimmune diseases like RA, where there is intense inflammation destroying joints, and in multiple sclerosis, where the brain is under attack with damage to vital neurologic circuits, the body's immune system turns against its own tissues. Other diseases ranging from atherosclerosis to gout, also reveal manifestations of an unwanted autoimmune attack.

Activation of the $\alpha 7$ nAChR results in a signaling cascade involving Jak2 and Stat3 leading to the conversion of the macrophages to an immune suppressive phenotype and the production of IL-10. IL-10 is known to reduce inflammatory cytokines, most prominently TNF, IL-1, and IL-6. Consequently, $\alpha 7$ nAChR agonists should complement anti-TNF therapy, which opens up the possibility of developing a new class of orally available medicines which are anti-inflammatory but much safer than existing medications such as NSAIDs, Cox2 inhibitors, methotrexate, and Janus kinase (JAK) inhibitors. This is because $\alpha 7$ nAChR agonists are activating an endogenous regulatory pathway, rather than blocking important pathways needed for diverse processes. The market opportunity arises from the complex and expensive effort by several large and small biotechnology companies in the development of a spectrum of orally available partial agonists specific for $\alpha 7$ nAChR. The compounds underwent extensive preclinical assessment and were used in 18 studies comprising 2,670 subjects.

The drugs universally were shown to be safe, but ineffective in trials for neurologic and psychiatric diseases, namely Alzheimer's disease and schizophrenia. In randomized, placebo-controlled clinical trials for cognitive impairment in Alzheimer's disease and schizophrenia, the compounds failed to meet their primary endpoint.

We plan to use these previous studies as a foundation to potentially develop a patentable $\alpha 7$ nAChR analog within this family to use as an immune suppressive to treat a range of inflammatory and autoimmune indications including RA, IBD, relapsing and progressive forms of multiple sclerosis, atherosclerosis, gout and osteoarthritis. Our scientists have found that the $\alpha 7$ receptor on macrophages and regulatory B lymphocytes are different from the target of the drugs developed so far.

Product Candidates or Indications

We intend to identify, characterize, synthesize, and patent an orally available small molecular weight agonist of $\alpha 7$ nAChR by screening non-patented analogs of large numbers of known agonists defined by pharmaceutical companies. We intend to outsource this work to Evotec GMBH, an integrated early discovery organization, and one which we have worked with in the past, specializing in ion channels and transporters, offering clients specialized technologies and scientific expertise to move from target to lead compounds.

Following a safety and efficacy assessment program, we intend to select candidates for preclinical development as a prelude to the potential initiation of clinical studies, which could potentially be followed by an Investigational New Drug Application ("IND") to the FDA. Our first intended target indication for our $\alpha 7$ nAChR development platform is smoking cessation induced ulcerative colitis.

Outsourcing and Manufacturing

We are currently outsourcing our clinical trials, which are conducted at Oxford University, Edinburgh, United Kingdom and Groningen, The Netherlands and only involve certain indications under the anti-TNF platform. We expect to continue to outsource our clinical trials and conduct them at (1) in the case of the anti-TNF platform, Oxford University and Groningen, The Netherlands, (2) in the case of the SCAs platform, Hebrew University and Oxford University and (3) in the case of the $\alpha 7$ nAChR platform, to be determined.

We also expect to outsource all of our manufacturing activities, including those activities at the research or clinical stage, with SCAs to be produced at Hebrew University and $\alpha 7nAChR$ to be produced by Evotec GMBH and the anti-TNF platform utilizing off-the-shelf adalimumab. In addition, we expect our products to be good manufacturing practice (GMP) grade and produced by accredited contract research organizations (CROs).

Material Agreements

We have entered into material research and licensing agreements (the “Research Agreements”) with various universities and parties in order to conduct research to develop potential product candidates. We have also entered into other material consulting and advisory services agreements with various scientists (the “Consulting Agreements”) to assist with such research.

Overview of Research Agreements

The Research Agreements include agreements with the Hebrew University and Oxford. For the anti-TNF platform, the Research Agreements with Oxford allow us to contribute financially to sponsor the research being conducted for the anti-TNF platform. In return, we will receive an exclusive option to license any intellectual property arising from the Research Agreements. There are also license agreements in place whereby we have exclusively licensed certain intellectual property from Oxford.

For the SCA program, we have agreements in place with Hebrew University and Oxford, pursuant to which we intend to conduct research to develop and characterize novel SCAs for the treatment of certain target indications, and to perform early-phase clinical trials. Through the Research Agreements with Hebrew University and Oxford, we established research facilities at the Hebrew University and Oxford, in which the development and testing of new cannabinoids designed and synthesized at the Hebrew University will be facilitated.

The Research Agreements are each described below.

Research Agreements with the Hebrew University

On May 13, 2018, our wholly-owned subsidiary CBR Pharma entered into a research and license agreement (the “2018 Hebrew Agreement”) with Yissum Research Development Company of the Hebrew University of Jerusalem, Ltd. (“Yissum”), pursuant to which Yissum granted CBR Pharma a worldwide exclusive license (the “2018 Hebrew License”) to develop and commercialize certain patents (the “2018 Hebrew Licensed Patents”), know-how and research results (collectively, the “2018 Hebrew Licensed Technology”), in order to develop, manufacture, market, distribute or sell products, all within the use of the 2018 Hebrew Licensed Technology for the treatment of any and all veterinary and human medical conditions, including obesity, pain, inflammation and arthritis (the “2018 Field”).

Pursuant to the 2018 Hebrew Agreement, notwithstanding the grant of the 2018 Hebrew License, Yissum, on behalf of Hebrew University, will retain the right to (i) make, use and practice the 2018 Hebrew Licensed Technology for Hebrew University’s own research and educational purposes; (ii) license or otherwise convey to other academic and not-for-profit research organizations the 2018 Hebrew Licensed Technology for use in non-commercial research; and (iii) license or otherwise convey the 2018 Hebrew Licensed Technology to any third party for research or commercial applications outside the 2018 Field.

The 2018 Hebrew Agreement further provides that CBR Pharma is entitled to grant one or more sublicenses to the 2018 Hebrew Licensed Technology for exploitation in the 2018 Field.

All right, title and interest in and to the 2018 Hebrew Licensed Technology vest solely in Yissum, and CBR Pharma will hold and make use of the rights granted pursuant to the 2018 Hebrew License solely in accordance with the terms of the 2018 Hebrew Agreement.

As consideration for the 2018 Hebrew License, CBR Pharma paid Yissum a license fee of \$75,000 and agreed to continue to pay an annual license maintenance fee (the “License Maintenance Fee”) of \$50,000, beginning on May 1, 2019 and thereafter on the first day of May each year. The License Maintenance Fee is non-refundable, but may be credited each year against royalties on account of net sales of products made from May 1 to April 30 of each year.

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Yissum has also agreed to undertake research and to synthesize chemical compounds that will be used by CBR Pharma, through additional research at both Oxford and Hebrew University, to develop orally active analgesic and anti-inflammatory medications. Compounds will be shipped from Hebrew University to Oxford for use in pre-clinical studies to establish efficacy in pain and inflammation.

Upon the achievement of certain milestones in respect of the chemical compounds derived from the 2018 Hebrew Licensed Technology, CBR Pharma is obligated to make certain payments to Yissum, including but not limited to the following:

Milestone	Milestone Fee
Submission of the first IND testing for the FDA	\$ 75,000
Commencement of one Phase 1/2 trial with the FDA	\$ 100,000
Commencement of one Phase 3 trial with the FDA	\$ 150,000
For each product market authorization/clearance (maximum of \$500,000)	\$ 100,000
	(maximum of \$500,000)
For every \$250 million in accumulated sales of the product until \$1 billion in sales is achieved	\$ 250,000

CBR Pharma will pay Yissum royalties equal to (i) 3% of the net sales for the first annual \$500 million of net sales, and (ii) 5% of the net sales after the net sales are at or in excess of \$500 million.

In the event of a sale by CBR Pharma stockholders of their common shares or the transfer or assignment of the 2018 Hebrew Agreement, CBR Pharma is obligated to pay Yissum a fee of 5% of the consideration received by CBR Pharma pursuant to such corporate transaction. In the event of an initial public offering, or a go-public event, CBR Pharma was obligated to issue registered common shares to Yissum equal to 5% of the issued and outstanding common shares, on a fully-diluted basis, concurrently with the closing of such transaction. The Business Combination that was consummated on November 6, 2020, was considered a go-public event, pursuant to which we issued 240,541 of our common shares to Yissum prior to the closing of the Business Combination. See Note 12 Commitments and Contingencies and Note 13 — Stockholders' Equity of the financial statements for the fiscal period ended December 31, 2021 included in this prospectus for more information on the shares issued to Yissum as per the research and license agreement.

CBR Pharma has also agreed to reimburse Yissum (to a maximum of \$30,000) for costs incurred for patent expenses.

Yissum and CBR Pharma also agreed to establish a research program for which CBR Pharma funded a \$400,000 budget for the 12-month period ended May 2019, which is in the process of being extended by an amendment.

The 2018 Hebrew Agreement will terminate upon the occurrence of the later of the following: (i) the expiration of the last of the 2018 Hebrew Licensed Patents; (ii) the expiration of the last exclusivity on any product granted by any regulatory or government body; (iii) the expiration of a continuous period of twenty years during which there was no commercial sale of any product in any country; or (iv) if we elect to obtain an exclusive license to the know-how under the terms of the 2018 Hebrew Agreement, the expiration of such exclusive license.

On November 11, 2019, CBR Pharma entered into an additional research and license agreement (the "2019 Hebrew Agreement") with Yissum, pursuant to which Yissum granted CBR Pharma a worldwide sole and exclusive license (the "2019 Hebrew License") to develop and commercialize certain patents (the "2019 Hebrew Licensed Patents"), know-how and research results (collectively, the "2019 Hebrew Licensed Technology," and together with the 2018 Hebrew Licensed Technology, the "Hebrew Licensed Technology"), in order to develop, manufacture, market, distribute, sell, repair and refurbish products, all within the use of the 2019 Hebrew Licensed Technology for (i) Cannabinoid phenolate metal salts, including mono, di and trivalent metals such as Li, Na, K, Ca, Mg, Zn, Fe and Al and their mixtures with native or synthetic cannabinoids, their pharmaceutical formulations, including for oral and topical administration; and (ii) pharmaceutical formulations, for the administration of cannabinoid chemical derivatives, including any and all veterinary and human medical conditions, including obesity, pain, inflammation and arthritis (the "2019 Field").

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Pursuant to the 2019 Hebrew Agreement, notwithstanding the grant of the 2019 Hebrew License, Yisum, on behalf of Hebrew University, will retain the right to (i) make, use and practice the 2019 Hebrew Licensed Technology for Hebrew University's own research and educational purposes, but not for commercial purposes, and subject to the maintenance of confidentiality for any know-how or unpublished patent information contain in the 2019 Hebrew Licensed Technology; (ii) license or otherwise convey to other academic and not-for-profit research organizations the 2019 Hebrew Licensed Technology for use in non-commercial research and subject to the maintenance of confidentiality for any know-how or unpublished patent information contain in the 2019 Hebrew Licensed Technology; and (iii) license or otherwise convey the 2019 Hebrew Licensed Technology to any third party for research or commercial applications outside the 2019 Field, subject to the maintenance of confidentiality for any know-how or unpublished patent information contain in the 2019 Hebrew Licensed Technology.

The 2019 Hebrew Agreement further provides that CBR Pharma is entitled to grant one or more sublicenses to the 2019 Hebrew Licensed Technology for exploitation in the 2019 Field.

All right, title and interest in and to the 2019 Hebrew Licensed Technology vest solely in Yisum, and CBR Pharma will hold and make use of the rights granted pursuant to the 2019 Hebrew License solely in accordance with the terms of the 2019 Hebrew Agreement.

The 2019 Hebrew Licensed Technology will terminate upon the occurrence of the later of the following: (i) the expiration of the last of the 2019 Hebrew Licensed Patents; (ii) the expiration of the last exclusivity on any product granted by any regulatory or government body; (iii) the expiration of a continuous period of twenty years plus any applicable patent extension period, during which there was no commercial sale of any product in any country; or (iv) if we elect to obtain an exclusive license to the know-how under the terms of the 2019 Hebrew Agreement, the expiration of such exclusive license.

On January 1, 2020, CBR Pharma and Yisum entered into the first amendment to the 2018 Hebrew Agreement, which provided for additional research to be done at Yisum on new derivatives of certain molecules. Pursuant to the terms of the First Amendment, we will pay Yisum \$200,000 per year plus 35% additional for University overhead for the additional research performed by each professor over an 18-month period, starting May 1, 2019. The additional research was initially expected to end in April 2021 and we are in negotiations with Yisum to extend the agreement.

Research Agreements with the University of Oxford

On November 1, 2013, our wholly-owned subsidiary 180 LP entered into an agreement (the "First Oxford Agreement") with Oxford, pursuant to which 180 LP will sponsor Oxford's research and development of repurposing anti-TNF for Dupuytren's Contracture.

Pursuant to the First Oxford Agreement, each payment is to be made to ISIS Innovation (now Oxford University Innovation) at different milestones of the project, outlined below:

Milestone	Milestone Fee	
Minimum investment completed	£	10,000
Initiation of Phase 2 trial for a licensed product	£	10,000
Initiation of Phase 3 trial for a licensed product	£	10,000
Registerable Phase 3 trial primary endpoint achieved for a licensed product	£	20,000
Any issued U.S. patent of the licensed intellectual property rights	£	5,000
Approval by FDA of a Section 505(b)(2) NDA filed by 180 LP or one of its sub-licensees for a licensed product	£	30,000
Approval by EMA of an MAA filed by 180 LP or one of its sub-licensees for a licensed product	£	30,000
First commercial sale of a licensed product by 180 LP or any sub-licensee in the United States	£	50,000
First commercial sale of a licensed product by 180 LP or any sub-licensee in the European Union	£	50,000

ISIS Innovation is also eligible for royalty payments equal to 0.5% of net sales in any country where there is a valid claim, 0.25% of net sales in other countries and a fee income royalty rate of 7.5% on all up-front, milestone and other one-off payments under or in connection with all sub-licenses and other contracts granted by 180 LP with respect to the licensed technology. The First Oxford Agreement is effective, unless earlier terminated, for so long as the specified patent application remains in effect as an issued patent, pending patent application or supplementary protection certificate or for a term of 20 years, whichever is longer.

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On August 15, 2018, CannBioRex Pharma Limited, a company incorporated under the laws of England and Wales (“CannU.K.”) and a wholly-owned subsidiary of our wholly-owned subsidiary CBR Pharma, entered into the Research Agreement (the “Second Oxford Agreement”) with Oxford, pursuant to which CBR Pharma (through CannU.K.) has sponsored Oxford’s research and development of SCAs developed from the Hebrew Licensed Technology. At Oxford, the SCAs generated in the Hebrew University are being tested for analgesic and anti-inflammatory effects in established pre-clinical models.

Pursuant to the Second Oxford Agreement, Oxford undertook a research project (the “Research Project”) based around the clinical development of SCAs that are known to exhibit both anti-inflammatory and immunomodulatory properties. The aim of the Research Project was to develop and characterize chemical compounds that are synthesized at Hebrew University to create treatments for chronic pain, RA and other chronic inflammatory conditions, and to eventually obtain regulatory approval to initiate early-phase clinical trials by mid to late 2022 or as soon as possible thereafter. The Second Oxford Agreement had an initial term of one year beginning on March 22, 2019, but was extended by amendment to March 31, 2020, or any later date agreed to by the parties, unless terminated earlier. The Second Oxford Agreement was not extended any further after March 31, 2020 and CannU.K.’s relationship with Oxford continued with additional agreements with Oxford, as described below.

CannU.K., as the sponsor of the Research Project, made the following payments to Oxford pursuant to the Second Oxford Agreement:

Milestone	Milestone Fee	
Signature of the Oxford Agreement	£	166,800
6 months post start of the Research Project	£	166,800
9 months post start of the Research Project	£	166,800
12 months post start of the Research Project, after report	£	55,600

On September 18, 2020, CannU.K. entered into another research agreement with Oxford (the “Third Oxford Agreement”), pursuant to which CannU.K. sponsors work led by Prof. Nanchahal at the University of Oxford to investigate the mechanisms underlying fibrosis. In connection with the agreement, CannU.K. initially provided \$100,000 and then at 6-month intervals further funding to support the salary of Dr. Lynn Williams and consumables.

CannU.K., as the sponsor, agreed to make the following payments to Oxford pursuant to the Third Oxford Agreement:

Milestone	Amount Due (excluding VAT)	
30 days post signing of the Third Oxford Agreement	£	80,000
6 months post signing of the Third Oxford Agreement	£	178,867
12 months post signing of the Third Oxford Agreement	£	178,867
24 months post signing of the Third Oxford Agreement	£	178,867
36 months post signing of the Third Oxford Agreement	£	178,867

On September 21, 2020, CannU.K. entered into another research agreement with Oxford (the “Fourth Oxford Agreement”), pursuant to which CannU.K. agreed to sponsor work at the University of Oxford to develop and characterize novel cannabinoid derived new chemical entities (NCEs) for the treatment of inflammatory diseases towards initiation of early phase clinical trials in patients within a period of 3 years.

CannU.K., as the sponsor, agreed to make the following payments to Oxford pursuant to the Fourth Oxford Agreement:

Milestone	Amount Due (excluding VAT)	
30 days post signing of the Fourth Oxford Agreement	£	101,778
6 months post signing of the Fourth Oxford Agreement	£	101,778
12 months post signing of the Fourth Oxford Agreement	£	101,778
18 months post signing of the Fourth Oxford Agreement	£	101,778
24 months post signing of the Fourth Oxford Agreement	£	101,778

On March 22, 2022, CannU.K. entered into an amendment to the Fourth Oxford Agreement, to extend the research period to December 31, 2023, at no additional cost to CannU.K.

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On May 24, 2021, CannU.K. entered into another research agreement with Oxford (the “Fifth Oxford Agreement”), pursuant to which CannU.K. will sponsor work at the University of Oxford to conduct a multi-center, randomized, double blind, parallel group, feasibility study of anti-TNF injection for the treatment of adults with frozen shoulder during the pain-predominant phase.

CannU.K., as the sponsor, agreed to make the following payments to Oxford pursuant to the Fifth Oxford Agreement:

Milestone	Amount Due (excluding VAT)
Upon signing of the Fifth Oxford Agreement	£ 70,546
6 months post signing of the Fifth Oxford Agreement	£ 70,546
12 months post signing of the Fifth Oxford Agreement	£ 70,546
24 months post signing of the Fifth Oxford Agreement	£ 70,546

Oxford License Agreement

On November 3, 2021, we entered into an exclusive license agreement with Oxford University Innovation Limited (“Oxford License Agreement”), pursuant to which we were granted the rights to certain patents related to the HMGB1 molecule for liver regeneration.

Pursuant to the Oxford License Agreement, we agreed to the following payment terms:

Payment	Amount Due
Past patent costs	£ 49,207
License fee	£ 10,000
Annual maintenance fee	£ 3,000
24 months post signing of the Fifth Oxford Agreement	£ 70,546

Milestone	Amount Due (excluding VAT)
Submission of IND	£ 25,000
1 st Subject dosed in Phase I studies for each product, each indication	£ 25,000
1 st Subject dosed in Phase II studies for each product, each indication	£ 100,000
1 st Subject dosed in Phase III studies for each product, each indication	£ 50,000
Submission of New Drug Application for each product for each indication	£ 50,000
Issued US patent, per patent	£ 5,000
Receipt of Regulatory Approval in the United States for each product for each indication	£ 1,250,000
Receipt of Regulatory Approval in the European Union or United Kingdom for each product for each indication	£ 550,000
Receipt of Regulatory Approval in the Japan for each product for each indication	£ 150,000
Aggregate Net Sales Exceed \$5Bn	£ 10,000,000
Aggregate Net Sales Exceed \$10Bn	£ 50,000,000

Net Sales (US\$)	Royalty Rate
< \$250M	1.00%
\$250M – \$1B	2.00%
\$1B – \$10B	3.00%
> \$10B	3.50%

Stanford License Agreement

On May 8, 2018, Katexco Pharmaceuticals Corp, a wholly-owned subsidiary of our wholly-owned subsidiary Katexco, entered into an option agreement (the “Stanford Option”) with the Board of Trustees of the Leland Stanford Junior University (“Stanford”), pursuant to which Stanford granted Katexco an option to acquire an exclusive license for the development and commercialization of certain inventions. In consideration for the Stanford Option, Katexco paid Stanford \$10,000 (the “Option Payment”), creditable against the license issue fee agreement.

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On July 25, 2018 (the “[Stanford Effective Date](#)”) Katexco exercised the Stanford Option, and entered into an exclusive license agreement (the “[Stanford License Agreement](#)”) with Stanford, pursuant to which Katexco was granted the rights to certain U.S. patents related to (i) alpha B-crystallin as a therapy for autoimmune demyelination and (ii) peptides as short as six amino acids that form amyloid fibrils that activate B-1 cells and macrophages and are anti-inflammatory and therapeutic in autoimmune and neurodegenerative diseases (the “[Stanford Licensed Patents](#)”). Through the Stanford License Agreement, Katexco established research facilities at Stanford. We will support the clinical development of the lead compound(s), culminating in Phase 1 and Phase 2 clinical trials to establish potential clinical utility in ulcerative colitis indications.

Under the Stanford License Agreement, no rights of Stanford, including intellectual property rights, are granted to Katexco other than those rights granted under the Stanford Licensed Patents.

As consideration for the grant of the Stanford Licensed Patents, Katexco paid Stanford an initial fee of \$50,000, inclusive of the Option Payment. We also issued 111,466 common shares to Stanford, and provided a letter stating the value of such shares. A portion of the shares issued to Stanford were later distributed to five individuals, including our Chief Scientific Officer and co-chairman.

Beginning upon the first anniversary of the Stanford Effective Date and each anniversary thereafter, Katexco will pay Stanford an annual license maintenance fee of \$20,000 on the first and second anniversaries and \$40,000 on each subsequent anniversary. Furthermore, Katexco is obligated to make the following payments, including (i) \$100,000 upon initiation of Phase 2 trial, (ii) \$500,000 upon the first FDA approval of a product (the “[Licensed Product](#)”) resulting from the Stanford Licensed Patents, and (iii) \$250,000 upon each new Licensed Product thereafter. Royalties, calculated at 2.5% of net sales (calculated as gross revenue received by Katexco or its sublicensees, their distributors or designees, from the sale, transfer or other disposition of products based on the Stanford Licensed Patents minus 5%), will be payable to Stanford. In addition, Katexco has reimbursed Stanford \$51,385 to offset the Stanford Licensed Patent’s patenting expenses, and will reimburse Stanford for all Stanford Licensed Patent’s patenting expenses, including any interference and or re-examination matters, incurred by Stanford after March 3, 2018.

We can terminate the Stanford License Agreement without cause by providing a 30-day notice. In the case of a change of control, upon the assignment of the Stanford License Agreement, Katexco is obligated to pay Stanford a \$200,000 change of control fee. The Stanford License Agreement also provides Stanford with the right to purchase for cash up to either (i) 10% or (ii) the percentage necessary for Stanford to maintain its pro rata ownership interest in Katexco, of Katexco’s equity securities issued in a private offering. The shares issued to Stanford in connection with the Stanford License Agreement, gave Stanford and the five individuals who received a portion of the shares a total ownership of 2.11% in Katexco’s stock, prior to the July 2019, corporate restructuring completed between 180 and each of 180 LP, Katexco and CBR Pharma, pursuant to which 180 LP, Katexco and CBR Pharma became wholly-owned subsidiaries of 180LS (the “[Reorganization](#)”) under the *Business Corporations Act* (British Columbia).

The Evotec Agreement

On June 7, 2018, our wholly-owned subsidiary Katexco entered into the Evotec Agreement with Evotec, a leading CRO, pursuant to which Evotec was retained to perform certain research services. Pursuant to the Evotec Agreement, the goal of the joint project (the “[Evotec Project](#)”) is to identify small molecules that pharmacologically stimulate the human ChrFam7a receptor and function. The Evotec Project is being conducted in two phases over a 24-month period where resources are allocated by the steering committee, which is controlled equally by the parties to the Evotec Agreement, on a quarterly basis.

Subject to certain exemptions described in the Evotec Agreement, Katexco owns all intellectual property rights, conceived, invented, discovered or made by Evotec during the performance of its services, other than intellectual property rights owned or controlled by Evotec relating to its already existing technology and components to be used in the services to be provided under the Evotec Agreement.

The Evotec Agreement is subject to a minimum payment of \$4,937,500 and a maximum payment of \$5,350,250 to Evotec. This program was paused in mid-2019 and we are currently in negotiations with Evotec to continue this program.

The Petcanna Agreement

On August 20, 2018, we entered into a sublicense agreement with Petcanna Pharma Corp. (“[Petcanna](#)”), a private company which was founded by Prof. Sir Marc Feldmann (our Executive Co-Chairman), and Yissum (the “[Petcanna Agreement](#)”).

Under the Petcanna Agreement, we granted Petcanna an exclusive, worldwide, non-transferable, non-sublicensable sublicense to make commercial use of the certain patents related to cyclohexenyl compounds and listed in the Petcanna Agreement (the “Petcanna IP”) in order to develop, manufacture, market, distribute or sell products that incorporate the Petcanna IP in products that are intended for the treatment of veterinary medical conditions, initially osteoarthritis.

As consideration for the sublicense, Petcanna agreed to issue to us approximately 9,000,000 of Petcanna’s common shares in the fourth quarter of 2018. As of the date of this prospectus, Petcanna has not issued shares to any shareholder and has not commenced operations. We intend to retain 85% of such shares, and transfer 15% of such shares to Yissum. In the event that Yissum does not accept such shares, we will have an obligation to pay Yissum 15% of the then current fair market value of such shares. Petcanna will also pay a 1% royalty to us on Petcanna’s net sales of products that incorporate the Petcanna IP.

All right, title and interest in and to the Petcanna IP, including any improvements to the Petcanna IP, will vest solely in our company.

Unless the parties to the Petcanna Agreement agree otherwise in writing, the Petcanna Agreement will terminate on the occurrence of the later of: (i) the date of expiration of the last of the Petcanna IP, (ii) the date of the final expiration of exclusivity on any Product granted by any regulatory or government body, and (iii) the expiration of a continuous period of twenty (20) years during which there was no First Commercial Sale of any product. The terms “Product” and “First Commercial Sale” apply as they are defined in the Petcanna Agreement. Our ability to grant this sublicense to Petcanna is contingent upon (i) Yissum having the necessary rights to the Hebrew Patent Applications assigned to it from all applicable parties, (ii) Yissum being able to grant a license to us per the terms of the Hebrew Agreement, and (iii) the Hebrew Patent Applications and any related resulting patents being valid and maintained in good standing for the respective terms of the Hebrew Licensing Agreement and the Petcanna Agreement.

Kennedy License Agreement

On September 27, 2019, our wholly-owned subsidiary 180 LP entered into an exclusive license agreement (the “Kennedy License Agreement”) with the Kennedy Trust For Rheumatology Research (“Kennedy”), pursuant to which Kennedy granted to 180 LP an exclusive license in the United States, Japan and member countries of the European Union (including the United Kingdom), to certain licensed patents (the “Kennedy Licensed Patents”), including the right to grant sublicenses, and the right to research, develop, sell or manufacture any pharmaceutical product (i) whose research, development, manufacture, use, importation or sale would infringe on the Kennedy Licensed Patents absent the license granted under the Kennedy License Agreement or (ii) containing an antibody that is a fragment of or derived from an antibody whose research, development, manufacture, use, importation or sale would infringe on the Kennedy Licensed Patents absent the license granted under the Kennedy License Agreement, for all human uses, including the diagnosis, prophylaxis and treatment of diseases and conditions.

Under the Kennedy License Agreement, Kennedy reserves the perpetual, irrevocable, non-exclusive, royalty-free, sublicensable, worldwide right for the Kennedy Licensed Patents and its affiliates, employees, students and other researchers to carry out any acts which would otherwise infringe on the Kennedy Licensed Patents for the purposes of teaching and carrying out research and development, including the right to accept external sponsorship for such research and development and the right to grant sub-licenses for the same purposes.

As consideration for the grant of the Kennedy Licensed Patents, 180 LP paid Kennedy an upfront fee of £60,000, and will also pay Kennedy royalties equal to (i) 1% of the net sales for the first annual \$1 billion of net sales, and (ii) 2% of the net sales after the net sales are at or in excess of \$1 billion, as well as 25% of all sublicense revenue, provided that the amount of such percentage of sublicense revenue based on amounts which constitute royalties shall not be less than 1% on the first cumulative \$1 billion of net sales of the products sold by such sublicenses or their affiliates, and 2% on that portion of the cumulative net sales of the products sold by such sublicenses or their affiliates in excess of \$1 billion.

The term of the royalties paid to Kennedy will expire on the later of (i) the last valid claim of a patent included in the Kennedy Licensed Patents which covers or claims the exploitation of a product in the applicable country; (ii) the expiration of regulatory exclusivity for the product in the country; or (iii) 10 years from first commercial sale of the product in the country.

We may terminate the Kennedy License Agreement without cause by providing 90-days’ notice.

Consulting Agreements

The Consulting Agreements are each described below.

Service Agreement with Prof. Sir Marc Feldmann

On June 1, 2018, CannBioRex Pharma Limited (“CannBioRex”) and Prof. Sir Marc Feldmann Ph.D., our Executive Co-Chairman, entered into a Service Agreement (the “Feldmann Employment Agreement”). Pursuant to the Feldmann Employment Agreement, Prof. Sir Feldmann serves as the Chairman, Chief Executive Officer and Executive Director of CannBioRex or in such other capacity consistent with his status. Prof. Sir Feldmann’s responsibilities include those customary for the roles in which he serves. Prof. Sir Feldmann receives compensation of £115,000 per year, with annual compensation reviewed by our Board and eligibility for discretionary bonuses, as determined by our Board. CannBioRex also reimburses Prof. Sir Feldmann’s travelling and other business expenses.

Pursuant to the Feldmann Employment Agreement, all intellectual property rights created by Prof. Sir Feldmann or related to his employment belong to and vest in CannBioRex.

The Feldmann Employment Agreement contains a customary non-compete clause prohibiting Prof. Sir Feldmann from working for any competing businesses during the term of his employment, or holding equity in other businesses, except he may hold or beneficially own securities of publicly-traded companies if the aggregate beneficial interests of him and his family does not exceed 5% of that class of securities.

Prof. Sir Feldmann is also prohibited for 12 months following termination (the “Post-Termination Period”) be involved in any capacity with a competing business or potential joint venturer in the United Kingdom or in any other country. During the Post-Termination Period, he may not solicit business from CannBioRex and its affiliates’ customers; or any company with whom he was activity involved in the course of his employment; or about which he holds confidential information. Prof. Sir Feldmann further covenants to not interfere with CannBioRex’s business relationships by inducing or attempting to induce suppliers to take adverse actions during the Post-Termination Period. He also agreed not to induce or attempt to induce any CannBioRex employee to leave the company during the Post-Termination Period. The Feldmann Employment Agreement contains customary non-disclosure and confidentiality obligations, sick leave and vacation time.

The Feldmann Employment Agreement does not have a fixed term. Either party may terminate the agreement by delivering written notice 9 months in advance. CannBioRex may also terminate the Feldmann Employment Agreement at any time with immediate effect by giving written notice. If CannBioRex terminates Prof. Sir Feldmann’s employment without providing 9 months written notice, he will become entitled to a payment equal to his basic salary he would have been entitled to receive if 9 months’ notice were given. The governing law for the Feldmann Employment Agreement is the law of England.

Our Board or our compensation committee, as applicable, may also award Prof. Sir Feldmann bonuses from time to time (in stock, options, cash, or other forms of consideration) in its discretion.

On November 17, 2021, our Board, as recommended by the compensation committee, increased the salary of Prof. Sir Feldmann to \$225,000 per year.

On December 8, 2021, Prof. Sir Feldmann was granted stock options to purchase 25,000 shares of our common stock, which have a term of 10 years, an exercise price equal to the fair market value of our common stock on the date of grant, \$3.95 per share, and are subject to our 2020 Omnibus Incentive Plan.

Consultancy Agreement with Prof. Lawrence Steinman

On May 31, 2018, CannBioRex Pharma Limited (“CannBioRex”) and Prof. Lawrence Steinman, our Executive Co-Chairman, entered into a Consultancy Agreement (the “Steinman Agreement”). Prof. Steinman committed to making himself available to provide services to CannBioRex that may require Prof. Steinman’s expertise. In consideration for the services provided, CannBioRex will pay Prof. Steinman approximately \$50,000 per year, in monthly installments. Prof. Steinman is also entitled to reimbursement of all business expenses, including travel.

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Although Prof. Steinman is not prohibited from engaging in other business activities during the term of the agreement, he must remain compliant with the terms of the agreement and seek prior written consent before conducting business with a business similar to, or competitive with, CannBioRex. The Steinman Agreement contains customary confidentiality and assignment of intellectual property provisions.

The Steinman Agreement had a two-year term. The agreement may be terminated earlier by Prof. Steinman or CannBioRex with six months' written notice. CannBioRex may terminate the agreement at any time with immediate effect if Prof. Steinman fails or neglects to efficiently and diligently perform services pursuant to the agreement or breaches its terms; is guilty of fraud, dishonesty or acts in a manner which we reasonably deem is likely to disparage himself or us; becomes unable to provide services for ten working days in any month; or Prof. Steinman becomes bankrupt or arranges for compromises with his creditors. Upon termination of the Steinman Agreement, Prof. Steinman must return property related to the consultancy and delete his own electronic records. The parties continued to operate under the terms of the agreement until November 2021 even though the agreement expired.

In addition, Prof. Steinman had a verbal agreement with Katexco Pharmaceuticals Corp., a wholly-owned subsidiary of the Company to provide services for \$100,000 per year, since Katexco's incorporation in 2018.

Both of these agreements have been terminated and replaced with a new consulting agreement with the Company, as described in detail below.

Prof. Jagdeep Nanchahal Consulting Agreement

On February 25, 2021, we (and CannBioRex Pharma Limited, which was added as a party to the agreement later), entered into a Consultancy Agreement dated February 22, 2021, and effective December 1, 2020, with Prof. Jagdeep Nanchahal (as amended, the "Consulting Agreement"). Prof. Nanchahal has been providing services to us and/or our subsidiaries since 2014, and is currently a greater than 5% stockholder of the Company and the Chairman of our Clinical Advisory Board.

On March 31, 2021, we entered into a First Amendment to Consultancy Agreement with Prof. Jagdeep Nanchahal, which amended the Consultancy Agreement entered into with Prof. Nanchahal on February 25, 2021, to include CannBioRex Pharma Limited, a corporation incorporated and registered in England and Wales ("CannBioRex"), and an indirect wholly-owned subsidiary of the Company, as a party thereto, and to update the prior Consultancy Agreement to provide for cash payments due to Prof. Nanchahal to be paid by CannBioRex, for tax purposes, provide for CannBioRex to be party to certain other provisions of the agreement and to provide for the timing of certain cash bonuses due under the terms of the agreement.

Prof. Nanchahal is a surgeon scientist focusing on defining the molecular mechanisms of common diseases and translating his findings through to early phase clinical trials. He undertook his Ph.D., funded by the U.K. Medical Research Council, whilst a medical student in London and led a lab group funded by external grants throughout his surgical training. After completing fellowships in microsurgery and hand surgery in the USA and Australia, he was appointed as a senior lecturer at Imperial College. His research is focused on promoting tissue regeneration by targeting endogenous stem cells and reducing fibrosis. In 2013 his group identified anti-tumor necrosis factor (TNF) as a therapeutic target for Dupuytren's Contracture, a common fibrotic condition of the hand. He is currently leading a Phase 2b clinical trial funded by the Wellcome Trust and Department of Health to assess the efficacy of local administration of anti-TNF in patients with early-stage Dupuytren's Contracture and a clinical trial for patients with early-stage frozen shoulder. He is a proponent of evidence-based medicine and was the only plastic surgery member of the NICE Guidance Development Groups on complex and non-complex fractures. He was a member of the group that wrote the Standards for the Management of Open Fractures published in 2020. This is an open-source publication to facilitate the care of patients with these severe injuries.

Pursuant to the Consulting Agreement, Prof. Nanchahal agreed, during the term of the agreement, to serve as a consultant to the Company and provide such services as the Chief Executive Officer and/or our Board shall request from time to time, including but not be limited to: (1) conducting clinical trials in the fields of Dupuytren's Contracture, frozen shoulder and post-operative delirium/cognitive decline; and (2) conducting laboratory research in other fibrotic disorders, including fibrosis of the liver and lung (collectively, the "Nanchahal Services").

In consideration for providing the Nanchahal Services, we (through CannBioRex Pharma Limited) agreed to pay Prof. Nanchahal 15,000 British Pounds (GBP) per month (approximately \$20,800) during the term of the agreement, increasing to GBP 23,000 (approximately \$32,000) on the date (a) of publication of the data from the phase 2b clinical trial

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for Dupuytren's Contracture (RIDD) and (b) the date that we have successfully raised over \$15 million in capital. The fee will increase annually thereafter to reflect progression in other clinical trials and laboratory research as approved by our Board. We also agreed to pay Prof. Nanchahal a bonus ("**Bonus 1**") in the sum of GBP 100,000 upon submission of the Dupuytren's Contracture clinical trial data for publication in a peer-reviewed journal, which submission occurred in December 2021, and which bonus was paid in December 2021. In addition, for prior work performed, including completion of the recruitment to the RIDD (Dupuytren's) trial, we awarded Prof. Nanchahal GBP 434,673 (approximately \$605,000) ("**Bonus 2**"). At the election of Prof. Nanchahal, Bonus 2 shall be paid at least 50% (fifty percent) or more, as Prof. Nanchahal elects, in shares of our common stock, at a share price of \$3.00 per share, or the share price on the date of the grant, whichever is lower, with the remainder paid in GBP. Bonus 2 shall be deemed earned and payable upon us raising a minimum of \$15 million in additional funding, through the sale of debt or equity, after December 1, 2020 (the "**Vesting Date**") and shall not be accrued, due or payable prior to such Vesting Date. We also waived the requirement for us having to raise \$15 million in order for Prof. Nanchahal to agree to receive an aggregate of GBP 300,000 via the issuance of shares. Prof. Nanchahal agreed that the remaining GBP 134,673 that is due pursuant to Bonus 2 shall be paid after we have raised a minimum of \$15 million in additional funding. Bonus 2 shall be payable by us within 30 calendar days of the Vesting Date. Finally, Prof. Nanchahal shall receive another one-time bonus ("**Bonus 3**") of GBP 5,000 (approximately \$7,000) on enrollment of the first patient to the phase 2 frozen shoulder trial, and another one-time bonus ("**Bonus 4**") of GBP 5,000 (approximately \$7,000) for enrollment of the first patient to the phase 2 delirium/POCD trial. On March 30, 2021, we issued Prof. Nanchahal 100,699 shares of our common stock in lieu of GBP 217,337 related to Bonus 2 and on April 15, 2021, we issued Prof. Nanchahal 37,715 shares of our common stock in lieu of GBP 82,588 related to Bonus 2. On August 23, 2021, at the request of Prof. Nanchahal, we agreed to issue Prof. Nanchahal 61,535 shares of common stock in consideration for the remaining 31% (or 134,748.63 GBP, or \$184,605.62) of Bonus 2, based on a \$3.00 per share price. The shares were issued under our 2020 Omnibus Incentive Plan, which has been approved by our stockholders.

Notwithstanding the above, our Board or our compensation committee may grant Prof. Nanchahal additional bonuses from time to time in their discretion, in cash, stock or options.

The Consulting Agreement has an initial term of three years, and renews thereafter for additional three-year terms, until terminated as provided in the agreement. The Consulting Agreement can be terminated by either party with 12 months prior written notice (provided our right to terminate the agreement may only be exercised if Prof. Nanchahal fails to perform his required duties under the Consulting Agreement), or by us immediately if (a) Prof. Nanchahal fails or neglects efficiently and diligently to perform the Nanchahal Services or is guilty of any breach of its or his obligations under the agreement (including any consent granted under it); (b) Prof. Nanchahal is guilty of any fraud or dishonesty or acts in a manner (whether in the performance of the Nanchahal Services or otherwise) which, in our reasonable opinion, has brought or is likely to bring Prof. Nanchahal, the Company or any of its affiliates into disrepute or is convicted of an arrestable offence (other than a road traffic offence for which a non-custodial penalty is imposed); or (c) Prof. Nanchahal becomes bankrupt or makes any arrangement or composition with his creditors. If the Consulting Agreement is terminated by us for any reason other than cause, Prof. Nanchahal is entitled to a lump sum payment of 12 months of his fee as at the date of termination.

The Consulting Agreement includes a 12 month non-compete and non-solicitation obligation of Prof. Nanchahal, preventing him from competing against us in any part of any country in which he was actively engaged in our business, subject to certain exceptions, including research conducted at the University of Oxford. The Consulting Agreement also includes customary confidentiality and assignment of inventions provisions, in each case subject to our previously existing agreements with various universities, including the University of Oxford, where Prof. Nanchahal serves as a Professor of Hand, Plastic and Reconstructive Surgery.

Lawrence Steinman, M.D. Consulting Agreement

On November 17, 2021, and effective on November 1, 2021, we entered into a Consulting Agreement with Lawrence Steinman, M.D., our Executive Co-Chairman (the "**Consulting Agreement**"). Pursuant to the Consulting Agreement, Dr. Steinman agreed to provide certain consulting services to us, including, but not limited to, participating in defining and setting strategic objectives of us; actively seeking out acquisition and merger candidates; and having primary scientific responsibility for our α 7nAChR platform (collectively, the "**Steinman Services**"). The term of the agreement is for one year (the "**Initial Term**"); provided that the agreement automatically extends for additional one year periods after the Initial Term (each an "**Automatic Renewal Term**") and the Initial Term together with all Automatic Renewal Terms, if any, the "**Term**"), subject to the Renewal Requirements (described below), in the event that neither party provided the other written notice of their intent not to automatically extend the term of the agreement at least

30 days prior to the end of the Initial Term or any Automatic Renewal Term. The Term can only be extended for an Automatic Renewal Term, provided that (i) Dr. Steinman is re-elected to our Board at our Annual Meeting of Stockholders immediately preceding the date that such Automatic Renewal Term begins; (ii) our Board affirms his appointment as Co-Chairman for the applicable Automatic Renewal Term (or fails to appoint someone else as Co-Chairman prior to such applicable Automatic Renewal Term) and (iii) Dr. Steinman is continuing in his role of having the responsibility for the scientific development for our α 7nAChR platform (the “Renewal Requirements”). The Consulting Agreement also expires immediately upon the earlier of: (i) the date upon which Dr. Steinman no longer serves as Co-Chairman and no longer has primary scientific responsibility for our α 7nAChR platform; and (ii) any earlier date requested by either (1) us (as evidenced by a vote of a majority of our Board (excluding Dr. Steinman) at a meeting of our Board), or (2) Dr. Steinman (as evidenced by written notice from Dr. Steinman to our Board). Additionally, we may terminate the Consulting Agreement immediately and without prior notice if Dr. Steinman is unable or refuses to perform the Steinman Services, and either party may terminate the Consulting Agreement immediately and without prior notice if the other party is in breach of any material provision of the Consulting Agreement.

We agreed to pay Dr. Steinman \$225,000 per year during the term of the agreement, along with a one-time payment of \$43,750, representing the difference between his old compensation and new compensation, dating back to April 1, 2021. Pursuant to the Consulting Agreement, Dr. Steinman agreed to not compete against us, unless approved in writing by our Board, during the term of the agreement, and also agreed to certain customary confidentiality provisions and assignment of inventions requirements. The Consulting Agreement also has a 12-month non-solicitation prohibition following its termination.

On December 8, 2021, Dr. Steinman was also granted stock options to purchase 25,000 shares of our common stock, which have a term of 10 years, an exercise price equal to the fair market value of our common stock on the date of grant, \$3.95 per share, and are subject to our 2020 Omnibus Incentive Plan. In addition, beginning in calendar year 2022, for each year during the Term of the Consulting Agreement, we will, subject to future approval by our Board, grant Dr. Steinman \$125,000 of value of equity compensation. Future equity grants will vest over a 48 month period and be in accordance with the Plan. Timing of the future grants, nature of the equity grants (e.g., RSU, PSU, restricted stock, etc.) and any changes in the value of future equity will be recommended by our compensation committee and/or audit committee and approved by our Board.

Intellectual Property

Our success depends in significant part on our ability to protect the proprietary elements of our product candidates, technology and know-how, to operate without infringing on the proprietary rights of others, and to defend challenges and oppositions from others and prevent others from infringing on our proprietary rights. We have sought, and will continue to seek, patent protection in the United States, United Kingdom, Europe and other countries for our proprietary technologies. Our intellectual property portfolio as of March 28, 2022, includes sixteen patent families with issued and/or pending claims, pharmaceutical formulations, drug delivery and the therapeutic uses of SCAs, as well as know-how and trade secrets, when including patents held by our partners of which we have exclusive rights.

Within the United States, we and/or our partners have licensed eight issued patents and thirteen pending patent applications under active prosecution. Outside of the United States, assuming the European Union as a single jurisdiction, there are an additional twelve issued patents and 23 pending patent applications under active prosecution. Our policy is to seek patent protection for the technology, inventions and improvements that we consider important to the development of our business, but only in those cases where we believe that the costs of obtaining patent protection is justified by the commercial potential of the technology, and typically only in those jurisdictions that we believe present significant commercial opportunities. We also rely on trademarks, trade secrets, know-how and continuing innovation to develop and maintain our competitive position.

The term of individual patents depends upon the countries in which they are obtained. In most countries in which we have filed, the patent term is 20 years from the earliest date of filing a non-provisional patent application. In the United States, a patent’s term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the U.S. Patent and Trademark Office (“USPTO”), in granting a patent, or may be shortened if a patent is terminally disclaimed over another patent.

The term of a patent that covers an FDA-approved drug may also be eligible for extension, which permits term restoration as compensation for the term lost during the FDA regulatory review process. The Drug Price Competition and Patent Term Restoration Act of 1984 (the Hatch-Waxman Act) permits an extension of up to five years beyond

the expiration of the patent. The length of the patent term extension is related to the length of time the drug is under regulatory review. Extensions cannot extend the remaining term of a patent beyond 14 years from the date of product approval and only one patent applicable to an approved drug may be extended. Similar provisions to extend the term of a patent that covers an approved drug are available in Europe and other non-U.S. jurisdictions.

To protect our rights to any of our issued patents and proprietary information, we may need to litigate against infringing third parties, avail ourselves of the courts or participate in hearings to determine the scope and validity of those patents or other proprietary rights.

We also rely on trade secret protection for our confidential and proprietary information. Our policy requires our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us.

From time to time, in the normal course of our operations, we will be a party to litigation and other dispute matters and claims relating to intellectual property.

180LS' Research, Development and License Agreements

180LS has entered into research and licensing agreements with various parties, including the Hebrew University of Jerusalem and Oxford. For information regarding these agreements, see "Material Agreements", above.

Competition

Below is a description of the competitive environment of each of our product candidate development platforms and potential product candidates.

Dupuytren's Contracture

Our treatment is for early-stage Dupuytren's Contracture, for which, to our knowledge, there is no approved treatment. Existing treatments focus on late stage Dupuytren's Contracture, when the fingers are irreversibly curled into the palm. Surgery remains the typical standard treatment but the relatively long post-operative rehabilitation has driven the reach for less invasive techniques. Xiaflex, a drug developed by Auxilium, has shown effective in treating patients with developed contractures although many patients experience relatively mild side effects. An alternative approach is disruption of the late-stage cords with a needle and data from a comparative clinical trial published in the Journal of Bone and Joint Surgery (American) in 2018 showed similar recurrence rates between collagenase and percutaneous needle fasciotomy at 2 years. A clinical trial funded by the National Institute for Health Research Health Technology Assessment Programme (U.K.) is currently underway in the United Kingdom, comparing the cost efficacy of surgery for Dupuytren's Contracture with collagenase treatment. The aims of the study are to determine (i) whether collagenase injections are as effective and as safe as surgery for treating this condition and (ii) the costs of both treatments.

SCAs

Despite roughly 3,000 pharmaceutical and biotechnology companies globally, only a handful of companies are actively developing synthetic cannabinoids for human and veterinary health. Presently, most of the focus of these companies is on pain management, multiple sclerosis and epileptic-seizure disorders, and most of these companies are using natural plant products.

We expect that the market for cannabinoid therapeutics will also grow significantly in the coming years due to increasing awareness of the potential benefits that cannabinoid products may provide over existing therapies. Interest in cannabinoid therapeutics has increased over the past several years as some pre-clinical and clinical data has emerged highlighting the potential efficacy and safety benefits of cannabinoid and synthetic cannabinoid therapeutics. Pharmaceutical companies that have publicized their engagement in testing cannabinoid and synthetic cannabinoid therapeutics include Zynherba, Skye Bioscience, IntelGenx, Ananda Scientific, InMed Pharmaceuticals, GW Pharmaceuticals PLC (acquired by Jazz Pharmaceuticals), Tetra Bio-Pharma, and GB Sciences.

Multiple companies are working in the cannabis therapeutic area and are pursuing regulatory approval for their product candidates. For example, GW Pharmaceuticals PLC, which markets Sativex, a botanical cannabinoid oral mucosal for the treatment of spasticity due to multiple sclerosis is seeking FDA approval in the United States, and Epidiolex, a liquid formulation of highly purified cannabidiol extract, which was recently approved as a treatment for Dravet's

Syndrome, Lennox Gastaut Syndrome, and various childhood epilepsy syndromes. Skye Bioscience, Inc. is focused on the discovery, development and commercialization of synthetic cannabinoid derived therapeutics to target glaucoma. Corbus Pharmaceuticals Holdings, Inc.'s lead drug candidate, lenabasum, is a novel, synthetic, oral, cannabinoid (CB2 agonist) designed to treat four serious and rare chronic inflammatory diseases (systemic sclerosis ("SSe"), dermatomyositis ("DM"), cystic fibrosis ("CF") and systemic lupus erythematosus), and the FDA has granted lenabasum Orphan Drug Designation as well as Fast Track Status for SSe and CF, and Orphan Drug Designation for DM. Zynerba Pharmaceuticals focuses on pharmaceutically-produced transdermal cannabinoid therapies for rare and near-rare neuropsychiatric disorders and is currently evaluating Zygel™, a patent-protected transdermal CBD gel for the treatment of Fragile X syndrome, for which it filed an NDA with the FDA, developmental and epileptic encephalopathies and Autism Spectrum Disorder.

α7nAChR

Competition to the acetylcholine receptor program is diverse, ranging from a small biotechnology company, Attenua, who is using an α7nAChR agonist, bradanicline, in Phase 2 clinical trials for chronic cough to electroceutical companies. The latter group of companies is very competitive, all of whom are developing devices to stimulate the vagus nerve as a therapy for inflammation. For example, Endonovo Therapeutics has developed a non-invasive electroceutical device using pulsed short-wave radiofrequency at 27.12 MHz that has been FDA-cleared and CE Marked for the palliative treatment of soft tissue injuries and post-operative pain and edema, and has Centers for Medicare and Medicaid Services (formerly the Health Care Financing Administration) ("CMS") national coverage for the treatment of chronic wounds. Additionally, SetPoint Medical Corp is using vagal nerve stimulation for IBD and RA.

The electroceutical companies can be viewed as competition, or a vast proof-of-concept. Because in many respects, the α7nAChR program can be viewed as a chemical stimulation of the vagus nerve, and each of the indications benefiting from electrical stimulation, should be amenable to chemical stimulation.

Lastly, each of the large pharmaceutical companies that initially developed α7nAChR agonists could revitalize their programs and use their drugs in clinical trials for inflammatory indications.

Government Regulation

We have obtained regulatory approvals from the MHRA and CCMO, as well as from the relevant accredited ethics committees, in order to perform clinical trials in the United Kingdom and The Netherlands solely for indications under the anti-TNF platform. We have not held any meetings with, and no applications or requests for approval have been submitted to, the U.S. Food and Drug Administration ("FDA") for any indications or products under the anti-TNF platform at this time.

FDA Approval Process

In the United States, pharmaceutical products, including drugs and biologics, are subject to extensive regulation by FDA. Under the U.S. Federal Food, Drug, and Cosmetic Act (the "FDC Act"), a "*drug*" is defined to include "*articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals*" and "*articles (other than food) intended to affect the structure or any function of the body of man or other animals.*" 21 USC 321(g). Like all drugs, biological products are also used for the treatment, prevention or cure of disease in humans. However, in contrast to chemically synthesized small molecular weight drugs, which have a well-defined structure and can be thoroughly characterized, biological products are generally derived from living material, such as human, animal, or microorganism, are complex in structure, and thus are always fully characterized. The U.S. Public Health Service Act (the "PHS Act") defines a biological product as a "*virus, therapeutic serum, toxin, antitoxin, vaccine, blood, blood component or derivative, allergenic product, or analogous product ... applicable to the prevention, treatment, or cure of a disease or condition of human beings.*" 42 USC 262(i). FDA regulations and policies have established that biological products include blood-derived products, vaccines, in vivo diagnostic allergenic products, immunoglobulin products, products containing cells or microorganisms, and most protein products. Biological products subject to the PHS Act also meet the definition of *drugs* under the FDC Act. Biological products are a subset of drugs, and therefore both are regulated under provisions of the FDC Act. However, only biological products are licensed under section 351 of the PHS Act, although some therapeutic protein products have been approved under section 505 of the FDC Act rather than the PHS Act.

The FDC Act, PHS Act, and other federal and state statutes and regulations, govern, among other things, the research, development, testing, manufacture, storage, recordkeeping, approval, labeling, promotion and marketing, distribution, post-approval monitoring and reporting, sampling, and import and export of drugs and biologics. Failure

to comply with applicable U.S. requirements may subject a company to a variety of administrative or judicial sanctions, such as imposition of clinical holds, FDA refusal to approve pending NDAs/BLAs or supplements to approved NDAs/BLAs, withdrawal of approvals, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties and criminal prosecution.

Drug and biologic development in the United States typically involves pre-clinical laboratory and animal tests, the submission to the FDA of an IND, which must become effective before clinical testing may commence. For commercial approval, the sponsor must submit adequate tests by all methods reasonably applicable to show that the drug/biologic is safe for use under the conditions prescribed, recommended or suggested in the proposed labeling. The sponsor must also submit substantial evidence, generally consisting of adequate, well-controlled clinical trials to establish that the drug/biologic will have the effect it purports or is represented to have under the conditions of use prescribed, recommended or suggested in the proposed labeling, including meeting FDA standards for safety, and efficacy for drugs or purity and potency for biologics. Satisfaction of FDA pre-market approval requirements typically takes many years and the actual time required may vary substantially based upon the type, complexity and novelty of the product candidate or disease.

Pre-clinical tests include laboratory evaluation of product candidate chemistry, formulation and toxicity, as well as animal trials to assess the characteristics and potential safety and efficacy of the product candidate. The conduct of the pre-clinical tests must comply with federal regulations and requirements, including FDA's GLP regulations and the U.S. Department of Agriculture's regulations implementing the Animal Welfare Act of 1996. The results of pre-clinical testing are submitted to the FDA as part of an IND along with other information, including information about product candidate chemistry, manufacturing and controls, and a proposed clinical trial protocol. Long-term pre-clinical tests, such as animal tests of reproductive toxicity and carcinogenicity, may continue after the IND is submitted.

A 30-day waiting period after the submission of each IND is required prior to the commencement of clinical testing in humans. If the FDA has not imposed a clinical hold on the IND or otherwise commented or questioned the IND within this 30-day period, the IND is deemed issued, and the clinical trial proposed in the IND may begin.

Clinical trials involve the administration of the investigational new drug/biologic to healthy volunteers or patients under the supervision of a qualified investigator. Clinical trials must be conducted: (i) in compliance with GCP, an international standard and U.S. legal requirement meant to protect the rights and health of patients and to define the roles of clinical trial sponsors, administrators and monitors, (ii) in compliance with other federal regulations, and (iii) under protocols detailing the objectives of the trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. Each protocol involving testing on U.S. patients and subsequent protocol amendments must be submitted to the FDA as part of the IND.

The FDA may order the temporary, or permanent, discontinuation of a clinical trial at any time or impose other sanctions if it believes that the clinical trial either is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial patients. The trial protocol and informed consent information for patients in clinical trials must also be submitted to an Institutional Review Board ("IRB"), for approval. An IRB may also prevent a clinical trial from beginning or require the clinical trial at the site to be halted, either temporarily or permanently, for failure to comply with the IRB's requirements or may impose other conditions.

Clinical trials to support NDAs/BLAs for marketing approval are typically conducted in three sequential phases, but the phases may overlap or otherwise vary in particular circumstances. In Phase 1, the initial introduction of the drug/biologic into healthy human subjects or patients, the drug/biologic is tested to assess metabolism, pharmacokinetics, pharmacological actions, side effects associated with increasing doses and, if possible, early evidence on effectiveness. Phase 2 usually involves trials in a limited patient population to determine the effectiveness of the drug/biologic for a particular indication, dosage tolerance and optimum dosage, and to identify common adverse effects and safety risks. If a compound demonstrates evidence of effectiveness and an acceptable safety profile in Phase 2 evaluations, Phase 3 trials are undertaken to obtain the additional information about clinical efficacy and safety in a larger number of patients, typically at geographically dispersed clinical trial sites, to permit the FDA to evaluate the overall benefit-risk relationship of the drug/biologic and to provide adequate information for the labeling of the drug/biologic. In most cases, the FDA requires two adequate and well-controlled Phase 3 clinical trials to demonstrate the efficacy of the drug/biologic. The FDA may, however, determine that a single Phase 3 trial with other confirmatory evidence may be sufficient in some instances. In some cases, the FDA may require post-market studies, known as Phase 4 studies, to be conducted as a condition of approval in order to gather additional information on the drug's/biologic's effect in various populations and any side effects associated with long-term use. Depending on the risks posed by the drugs/biologics, other post-market requirements may be imposed.

After completion of the required clinical testing, an NDA or BLA (collectively, “NDA/BLA”) is prepared and submitted to the FDA. The FDA approval of the NDA/BLA is required before marketing of the product candidate may begin in the United States. The NDA/BLA must include the results of all pre-clinical, clinical, and other testing and a compilation of data relating to the product candidate’s pharmacology, chemistry, manufacture, and controls. The cost of preparing and submitting an NDA/BLA is substantial. Under federal law, the submission of most NDAs/BLAs is also subject to an application user fee, which, for the fiscal year 2022, was in the amount of approximately \$3.1 million.

The FDA has 60 days from its receipt of an NDA/BLA to determine whether the application will be accepted for filing based on the agency’s threshold determination that it is sufficiently complete to permit substantive review. Once the submission is accepted for filing, the FDA begins an in-depth review. Under the Prescription Drug User Fee Act, the FDA has agreed to certain performance goals in the review of NDAs/BLAs. The FDA’s current performance goals call for the FDA to complete review of 90 percent of standard (non-priority) NDAs/BLAs within 10 months of receipt and within six months for priority NDAs/BLAs, but two additional months are added to standard and priority NDAs/BLAs for a new molecular entity/reference biologic. A drug/biologic is eligible for priority review if it addresses an unmet medical need in a serious or life-threatening disease or condition. The review process for both standard and priority review may be extended by FDA for three additional months to consider certain late-submitted information, or information intended to clarify information already provided in the submission. These timelines are not legally binding on the FDA.

The FDA may also refer applications for novel drug/biologic products, or drug/biologic products that present difficult questions of safety or efficacy, to an advisory committee, which is typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory committee, but it generally follows such recommendations. Before approving an NDA/BLA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP.

Additionally, the FDA will inspect the facility or the facilities at which the drug is manufactured. The FDA will not approve the product candidate unless compliance with GMPs, is satisfactory and the NDA/BLA contains data that provide substantial evidence that the drug is safe and effective, or the biologic meets the standards for safety, purity, and potency in the indication studied.

After the FDA evaluates the NDA/BLA and the manufacturing facilities, the FDA issues either an approval letter or a complete response letter. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing, or information, in order for the FDA to reconsider the application. If, or when, those deficiencies have been addressed to the FDA’s satisfaction in a resubmission of the NDA/BLA, the FDA will issue an approval letter. The FDA has committed to reviewing 90 percent of resubmissions within two or six months depending on the type of information included. Notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

An approval letter authorizes commercial marketing of the drug/biologic with specific prescribing information for specific indications. As a condition of NDA/BLA approval, the FDA may require a REMS, to help ensure that the benefits of the drug/biologic outweigh the potential risks. REMS can include medication guides, communication plans for health care professionals, and ETASUs. ETASUs can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring, and the use of patient registries. The requirement for a REMS can materially affect the potential market and profitability of the drug/biologic. Moreover, product candidate approval may require substantial post approval testing and surveillance to monitor the drug’s/biologic’s safety or efficacy. Once granted, product candidate approvals may be withdrawn if compliance with regulatory standards is not maintained or problems are identified following initial marketing.

Disclosure of Clinical Trial Information

Sponsors of clinical trials of certain FDA-regulated products, including prescription drugs/biologics, are required to register and disclose certain clinical trial information on a public website maintained by the U.S. National Institutes of Health. Information related to the product candidate, patient population, phase of investigation, study sites and investigator, and other aspects of the clinical trial is made public as part of the registration. Sponsors are also obligated to disclose the results of these trials after completion. The deadline for submitting the results of these trials can be extended for up to two years if the sponsor certifies that it is seeking approval of an unapproved product or that it will file an application for approval of a new indication for an approved product within one year. Competitors may use the publicly available information to gain knowledge regarding the design and progress of our development programs.

Fast Track Designation and Accelerated Approval

If our drug/biologic candidate meets the requirements of the FDA's fast track program, we would seek to have our drug/biologic candidate expedited through this program. The FDA has programs to facilitate the development, and expedite the review, of drugs/biologics that are intended for the treatment of a serious or life-threatening disease or condition for which there is no effective treatment and which demonstrate the potential to address unmet medical needs for the condition. Under the fast-track program, the sponsor of a new drug/biologic candidate may request that the FDA designate the drug/biologic candidate for a specific indication as a fast track drug/biologic concurrent with, or after, the filing of the IND for the drug/biologic candidate. The FDA must determine if the drug/biologic candidate qualifies for fast track designation within 60 days of receipt of the sponsor's request. In addition to other benefits such as the ability to engage in more frequent interactions with the FDA, the FDA may initiate review of sections of a fast track drug's/biologic's NDA/BLA before the application is complete. This rolling review is available if the applicant provides, and the FDA approves, a schedule for the submission of the remaining information and the applicant pays applicable user fees. However, the FDA's time period goal for reviewing an application does not begin until the last section of the NDA/BLA is submitted. Additionally, the fast track designation may be withdrawn by the FDA if it believes that the designation is no longer supported by data emerging in the clinical trial process.

Under the FDA's accelerated approval regulations, the FDA may approve a drug/biologic for a serious or life-threatening illness that provides meaningful therapeutic benefit to patients over existing treatments based upon a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments.

In clinical trials, a surrogate endpoint is a measurement of laboratory or clinical signs of a disease or condition that substitutes for a direct measurement of how a patient feels, functions or survives. Surrogate endpoints can often be measured more easily or more rapidly than clinical endpoints. A drug/biologic candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the completion of Phase 4 or post-approval clinical trials to confirm clinical benefit. Failure to conduct required post-approval studies, or confirm a clinical benefit during post-marketing studies, will allow the FDA to withdraw the drug/biologic from the market on an expedited basis. Unless otherwise informed by the FDA, for an accelerated approval product/biologic, an applicant must submit to the FDA for consideration during the preapproval review period copies of all promotional materials, including promotional labeling as well as advertisements, intended for dissemination or publication within 120 days following marketing approval. After 120 days following marketing approval, unless otherwise informed by the FDA, the applicant must submit promotional materials at least 30 days prior to the intended time of initial dissemination of the labeling or initial publication of the advertisement.

Breakthrough Therapy Designation

As with the FDA's fast track program, if our drug/biologic candidate meets the requirements to receive the FDA's Breakthrough Therapy designation, we would seek to have our drug/biologic candidate expedited through this program. The FDA's Breakthrough Therapy designation program is intended to expedite the development and review of products that treat serious or life-threatening diseases or conditions. A Breakthrough Therapy is defined, under the Food and Drug Administration Safety and Innovation Act, as a drug/biologic that is intended, alone or in combination with one or more other drugs/biologics, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug/biologic may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. The designation includes all of the features of fast-track designation, as well as more intensive FDA interaction and guidance. The Breakthrough Therapy designation is a distinct status from both accelerated approval and priority review, but these can also be granted to the same product candidate if the relevant criteria are met. The FDA must take certain actions, such as holding timely meetings and providing advice, intended to expedite the development and review of an application for approval of a breakthrough therapy. All requests for breakthrough therapy designation will be reviewed within 60 days of receipt, and the FDA will either grant or deny the request.

Fast track designation, accelerated approval, priority review, and Breakthrough Therapy designation do not change the standards for approval but may expedite the development or approval process. Even if the FDA grants one of these designations, the FDA may later decide that the drug/biologic products no longer meet the conditions for qualification.

Orange Book Listing and Patent Certification

Based on amendments to the FDC Act made by the Drug Price Competition Innovation Act of 1984 (commonly known as Hatch-Waxman), in seeking approval for a drug through an NDA, applicants are required to list with the FDA each patent whose claims cover the applicant's product candidate or a claimed method of use of the product candidate. Upon approval of a drug, each of the eligible patents listed in the application for the drug is then published in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, commonly known as the Orange Book. Drugs listed in the Orange Book must, in turn, be the subject of a special certification by the filer of an ANDA, for a generic version of the drug, or by the applicant of a section 505(b)(2) application. An ANDA provides for marketing of a drug product candidate that has the same active ingredient(s) in the same strengths and dosage form as the reference listed innovator drug and has been shown to be bioequivalent to the reference listed drug. Other than the requirement for bioequivalence testing (absent a waiver), ANDA applicants are not required to conduct, or submit results of, pre-clinical or clinical tests to prove the safety or effectiveness of their drug product candidate. Drugs approved in this way are commonly referred to as "generic equivalents" to the listed drug, are considered therapeutically equivalent to the listed drug, and can often be substituted by pharmacists under prescriptions written for the original listed drug.

The ANDA applicant is required to certify to the FDA concerning any patents listed for the approved product candidate in the FDA's Orange Book. Specifically, the applicant must certify that: (i) the required patent information has not been filed; (ii) the listed patent has expired; (iii) the listed patent has not expired, but will expire on a particular date and approval is sought after patent expiration; or (iv) the listed patent is invalid or will not be infringed by the new product candidate. The ANDA applicant may also elect to submit a "section viii statement", certifying that its proposed ANDA labeling does not contain (or carves out) any language regarding the patented method-of-use, rather than certify to a listed method-of-use patent.

If the applicant does not challenge the listed patents, the ANDA application will not be approved until all the listed patents claiming the referenced product have expired.

A certification that the new product candidate will not infringe the already approved product candidate's listed patents, or that such patents are invalid or unenforceable, is called a Paragraph IV certification. If the ANDA applicant has provided a Paragraph IV certification to the FDA, the applicant must also send notice of the Paragraph IV certification to the NDA and patent holders once the ANDA has been accepted for filing by the FDA. The NDA and patent holders may then initiate a patent infringement lawsuit in response to the notice of the Paragraph IV certification. The filing of a patent infringement lawsuit within 45 days of the receipt of notice of a Paragraph IV certification automatically prevents the FDA from approving the ANDA until the earlier of 30 months, expiration of the patent, settlement of the lawsuit, a decision in the infringement case that is favorable to the ANDA applicant, or some other order of the court.

Sponsors may also seek to market versions of drug products via a section 505(b)(2) application, which is an NDA pathway that allows an applicant to seek approval for a drug product based on full safety and efficacy documentation, some of which may be from literature or conducted by others and for which the applicant does not have the right of reference. NDA Section 505(b)(2) applications may be submitted for drug products that represent a modification, such as a new indication or new dosage form, of a previously approved drug. Section 505(b)(2) applications may rely on the FDA's previous findings for the safety and effectiveness of the previously approved drug in addition to information obtained by the 505(b)(2) applicant to support the modification of the previously approved drug. Preparing Section 505(b)(2) applications may be less costly and time-consuming than preparing an NDA based entirely on new data and information. Section 505(b)(2) applications are subject to the same patent certification procedures as an ANDA.

New Chemical Entity Exclusivity and Clinical Investigation Exclusivity

Upon NDA approval of a New Chemical Entity ("NCE"), which is a drug that contains no active moiety that has been approved by the FDA in any other NDA, that drug receives five years of marketing exclusivity during which time the FDA cannot receive any ANDA or 505(b)(2) application seeking approval of a drug that references a version of the NCE drug. Certain changes to a drug, such as the addition of a new indication to the package insert with new clinical studies required for approval, are associated with a three-year period of exclusivity during which the FDA cannot approve an ANDA or 505(b)(2) application that includes the change.

An ANDA or 505(b)(2) application may be submitted one year before NCE exclusivity expires if a Paragraph IV certification is filed. If there is no listed patent in the Orange Book, there may not be a Paragraph IV certification and thus no ANDA or 505(b)(2) may be filed before the expiration of the exclusivity period.

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For a botanical drug, FDA may determine that the active moiety is one or more of the principle components or the complex mixture as a whole. This determination would affect the utility of any five-year exclusivity as well as the ability of any potential generic competitor to demonstrate that it is the same drug as the original botanical drug.

Five-year and three-year exclusivities do not preclude FDA approval of a 505(b)(1) application for a version of the drug during the period of exclusivity, provided that the 505(b)(1) conducts or obtains a right of reference to all of the pre-clinical studies and adequate and well controlled clinical trials necessary to demonstrate safety and effectiveness.

Orphan Designation and Exclusivity

FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition that affects fewer than 200,000 individuals in the United States, or if it affects more than 200,000 individuals in the United States and there is no reasonable expectation that the cost of developing and making the drug for this type of disease or condition will be recovered from sales in the United States.

Orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical study costs, tax advantages, and user-fee waivers. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. In addition, the first NDA or BLA applicant to receive orphan drug designation for a particular drug is entitled to orphan drug exclusivity, which means the FDA may not approve any other application to market the same drug for the same indication for a period of seven years in the United States, except in limited circumstances. Orphan drug exclusivity does not prevent the FDA from approving a different drug for the same disease or condition, or the same drug for a different disease or condition.

Pediatric Studies and Exclusivity

NDAs and BLAs must contain data to assess the safety and effectiveness of an investigational new drug product for the claimed indications in all relevant pediatric populations in order to support dosing and administration for each pediatric subpopulation for which the drug is safe and effective. The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults or full or partial waivers if certain criteria are met. Discussions about pediatric development plans can be discussed with the FDA at any time, but usually occur any time between the end-of-Phase 2 meeting and submission of the NDA or BLA. Unless otherwise required by regulation, the requirements for pediatric data do not apply to any drug for an indication for which orphan designation has been granted.

Pediatric exclusivity is another type of non-patent exclusivity in the United States that may be granted if certain FDA requirements are met, such as FDA's determination that information relating to the use of a new drug in the pediatric population may produce health benefits, and the applicant agrees to perform and report on FDA-requested studies within a certain time frame. Pediatric exclusivity adds a period of six months of exclusivity to the end of all existing marketing exclusivity and patents held by the sponsor for that active moiety. This is not a patent term extension, but it effectively extends the regulatory period during which the FDA cannot accept or approve another application relying on the NDA or BLA sponsor's data.

Biologics Exclusivity and Biosimilars

The Patient Protection and Affordable Care Act of 2010, or Affordable Care Act, includes a subtitle called the Biologics Price Competition and Innovation Act of 2009, or BPCI Act, which amended the PHS Act to create an abbreviated approval pathway under section 351(k) of the PHS Act for biological products shown to be similar to, or interchangeable with, an FDA-licensed reference biological product originally licensed under section 351(a) of the PHS Act.

A reference biologic is granted twelve years of marketing exclusivity from the time of first licensure of the reference product, during which time a 351(k) application for a biosimilar of the reference product may not be approved. The reference biologic is also granted four years of so-called data exclusivity, during which time a 351(k) application for a biosimilar of the reference product may not be submitted for review. The first biologic product submitted under the abbreviated approval pathway that is determined to be interchangeable with the reference product has exclusivity against other biologics submitting under the abbreviated approval pathway for the lesser of (i) one year after the first commercial marketing, (ii) eighteen months after approval if there is no legal challenge, (iii) eighteen months after the resolution in the applicant's favor of a lawsuit challenging the biologics' patents if an application has been submitted, or (iv) 42 months after the application has been approved if a lawsuit is ongoing within the 42-month period.

Biologic Patent Information

In contrast to small molecule drugs, for which applicants are required to submit patent information with their NDAs and certain supplements, an applicant seeking licensure of a biological product need not submit patent information in its BLA or supplements. Also, unlike small molecule drugs, for which the approvability of ANDAs and 505(b)(2) NDAs is impacted by the status of listed patents for the reference NDA drug product, the approvability of section 351(k) applications for biosimilar products is presently delinked from the various processes for resolving patent disputes. Biosimilar applicants have a choice whether to engage in the patent litigation provisions of the BPCIA, colloquially known as the “patent dance,” to identify and litigate a defined list of patents. However, unlike the listing of small molecule reference listed drugs and patents in the “Orange Book,” there had not been a process for listing patents in FDA’s List of Licensed Biological Products, commonly known as the “Purple Book.” Recently, in December 2020 Congress enacted the Biological Product Patent Transparency Act (“BPPT”) (originally introduced as the Purple Book Continuity Act) which created section 351(k)(9) of the PHS Act. That section requires that a biological product reference sponsor that provides a biosimilar applicant with a patent list as part of the “Patent Dance” BPCIA patent litigation process must now submit those lists to FDA within 30 days, and further, as of June 2021 FDA is required to make those lists (along with any revisions or updates) public in the Purple Book database.

Patent Term Extension

After NDA or BLA approval, owners of relevant drug or biologic patents may apply for up to a five-year patent extension. The allowable patent term extension is calculated as half of the product’s testing phase — the time between IND submission and NDA or BLA submission — and all of the review phase — the time between NDA submission and approval up to a maximum of five years. The time can be shortened if FDA determines that the applicant did not pursue approval with due diligence. The total patent term after the extension may not exceed 14 years.

For patents that might expire during the application phase, the patent owner may request an interim patent extension. An interim patent extension increases the patent term by one year and may be renewed up to four times. For each interim patent extension granted, the post-approval patent extension is reduced by one year. The director of the United States Patent and Trademark Office (USPTO) must determine that approval of the product covered by the patent for which a patent extension is being sought is likely. Interim patent extensions are not available for a drug for which an NDA or BLA has not been submitted.

Advertising and Promotion

Once an NDA or BLA is approved, a product candidate will be subject to certain post-approval requirements. For instance, FDA closely regulates the post-approval marketing and promotion of drugs and biologics, including standards and regulations for direct-to-consumer advertising, off-label promotion, industry-sponsored scientific and educational activities and promotional activities involving the internet.

Drugs and biologics may be marketed only for the approved indications and in accordance with the provisions of the approved labeling.

Post-Approval Changes

Changes to some of the conditions established in an approved application, including changes in indications, labeling, or manufacturing processes or facilities, require submission and FDA approval of a new NDA/BLA or NDA/BLA supplement before the change can be implemented. An NDA supplement for a new indication typically requires clinical data similar to that in the original application, and the FDA uses the same procedures and actions in reviewing NDA supplements as it does in reviewing NDAs.

Adverse Event Reporting and GMP Compliance

Adverse event reporting on an expedited basis and submission of periodic adverse event reports is required following FDA approval of an NDA or BLA. The FDA also may require post-marketing testing, known as Phase 4 testing, REMS and surveillance to monitor the effects of an approved product, or the FDA may place conditions on an approval that could restrict the distribution or use of the product. In addition, quality-control, drug manufacture, packaging, and labeling procedures must continue to conform GMPs after approval. Drug manufacturers and certain of their subcontractors are required to register their establishments with FDA and certain state agencies. Registration

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with the FDA subjects entities to periodic unannounced inspections by the FDA, during which the agency inspects manufacturing facilities to assess compliance with GMPs. Accordingly, manufacturers must continue to expend time, money and effort in the areas of production and quality control to maintain compliance with GMPs. Regulatory authorities may withdraw product approvals, issue warning letters, request product recalls or take other enforcement actions if a company fails to comply with regulatory standards, if it encounters problems following initial marketing or if previously unrecognized problems are subsequently discovered.

Special Protocol Assessment

A sponsor may reach an agreement with the FDA under the Special Protocol Assessment (“SPA”), process as to the required design and size of clinical trials intended to form the primary basis of an efficacy claim. According to its performance goals, the FDA has committed to evaluating 90 percent of the protocols within 45 days of its receipt of the requests to assess whether the proposed trial is adequate, and that evaluation may result in discussions and a request for additional information. An SPA request must be made before the proposed trial begins, and all open issues must be resolved before the trial begins. If a written agreement is reached, it will be documented and made part of the administrative record. Under the FDC Act and FDA guidance implementing the statutory requirement, an SPA is generally binding upon the FDA as to the design of the trial except in limited circumstances, such as if the FDA identifies a substantial scientific issue essential to determining safety or efficacy after the study begins, public health concerns emerge that were unrecognized at the time of the protocol assessment, the sponsor and FDA agree to the change in writing, or if the study sponsor fails to follow the protocol that was agreed upon with the FDA.

Controlled Substances

The CSA and the implementing regulations impose registration, security, recordkeeping and reporting, storage, manufacturing, distribution, dispensing, importation and other requirements on controlled substances under the oversight of the U.S. Drug Enforcement Administration (“DEA”). The DEA is the federal agency, responsible for regulating controlled substances, and requires those individuals or entities that manufacture, import, export, distribute, research, or dispense controlled substances to comply with the regulatory requirements in order to prevent the diversion and abuse of controlled substances.

The DEA regulates controlled substances as Schedule I, II, III, IV or V substances, depending on the substance’s medical effectiveness and abuse potential. Pharmaceutical products having a currently accepted medical use that are otherwise approved for marketing may be listed as Schedule II, III, IV or V substances, with Schedule II substances presenting the highest potential for abuse and physical or psychological dependence, and Schedule V substances presenting the lowest relative potential for abuse and dependence. The DEA has placed certain drug products that include cannabidiol, on Schedule V.

Following NDA approval of a drug containing a Schedule I controlled substance, that substance must be rescheduled as a Schedule II, III, IV or V substance before it can be marketed. The Improving Regulatory Transparency for New Medical Therapies Act enacted on November 25, 2015 and its implementing regulations has removed uncertainty associated with the timing of the DEA rescheduling process after NDA approval, under which a manufacturer may market its product no later than 90 days after the later of: (1) the date on which DEA receives from FDA the scientific and medical evaluation and scheduling recommendation; or (2) the date on which DEA receives from FDA notification that FDA has approved the drug. The Act also clarifies that the seven-year orphan exclusivity period begins with the approval of the NDA or DEA scheduling, whichever is later. This changes the previous situation whereby the orphan “clock” began to tick upon FDA’s NDA approval, even though the product could not be marketed until DEA scheduling was complete.

The CSA requires that facilities that manufacture, distribute, dispense, import or export any controlled substance must register annually with the DEA. Separate registrations are required for importation and manufacturing activities, and each registration authorizes the specific schedules of controlled substances the registrant may handle. Prior to issuance of a controlled substance registration, the DEA inspects all manufacturing facilities to review security, recordkeeping, reporting and handling of the controlled substances. The specific security requirements vary by, among other things, the type of business activity conducted, and the type, form, and quantity of controlled substances handled.

In addition, the states have their own distinct controlled substance laws and regulations, including licensure, distribution, dispensing, recordkeeping and reporting requirements for controlled substances. State boards of

pharmacy or similar authorities regulate use of controlled substances in each state. Failure to comply with applicable requirements, such as the loss or diversion of controlled substances, can result in administrative fines, suspension or revocation of licenses, and civil and criminal liabilities.

United Kingdom/European Union/Rest of World Government Regulation

In addition to regulations in the United States, we are and will be subject, either directly or through our distribution partners, to a variety of regulations in other jurisdictions governing, among other things, clinical trials, product approvals and any commercial sales (including pricing and reimbursement) and distribution of our products, if approved.

Whether or not we obtain FDA approval for a product, we must obtain the requisite approvals from regulatory authorities in non-U.S. countries prior to the commencement of clinical trials or marketing of the product in those countries.

In the European Union, medicinal products are subject to extensive pre- and post-marketing regulation by regulatory authorities at both the European Union and national levels. Additional rules also apply at the national level to the manufacture, import, export, storage, distribution and sale of controlled substances. In many EU member states the regulatory authority responsible for medicinal products is also responsible for controlled substances. Responsibility is, however, split in some member states. Generally, any company manufacturing or distributing a medicinal product containing a controlled substance in the European Union will need to hold a controlled substances license from the competent national authority and will be subject to specific record-keeping and security obligations. Separate import or export certificates are required for each shipment into or out of the member state.

In the United Kingdom, medicinal products are subject to extensive regulation by the MHRA, which is an executive agency, sponsored by the Department of Health and Social Care. MHRA regulates by ensuring that medicines, medical devices and blood components for transfusion meet applicable standards of safety, quality and efficacy, in addition to supporting innovation and research and development that is beneficial to public health.

Clinical Trials and Marketing Approval

Certain countries outside of the United States have a process that requires the submission of a clinical trial application much like an IND prior to the commencement of human clinical trials.

Under Directive 2001/20/EC on clinical trials (“CTD”) and Directive 2005/28/EC, as amended, a system for the approval of clinical trials in the European Union was implemented through national legislation of EU member states. Under this system, approval had to be obtained from the relevant competent national authority of each EU member state in which a clinical trial was planned.

In April 2014, the Clinical Trials Regulation, Regulation (EU) No 536/2014 (the “CTR”) was adopted to replace the CTD. To ensure that the rules for clinical trials are identical throughout the European Union, the CTR was passed as a “regulation” that is directly applicable to EU member states. The CTR became fully applicable in the European Union on January 31, 2022 and repealed the CTD as of that date. As opposed to the CTD, the CTR requires the sponsor to submit a single clinical trial application (“CTA”) via the EU portal in order to obtain permission for conducting a clinical trial. Therefore, all clinical trial sponsors have to use the same system (“CTIS”) and follow the same process to apply for the authorization of a clinical trial, no matter where they are located. Although the CTD was repealed by the CTR as of January 31, 2022, it will still apply three years from that day to:

- CTAs submitted before January 31, 2022; and
- CTAs submitted within one year after January 31, 2022, if the sponsor opts for the old system.

From January 31, 2023, submission of CTAs under the CTR (via CTIS) will become mandatory. By January 31, 2025, all trials approved under the CTD with at least one site active in the European Union on January 30, 2025 will have to be transitioned to the CTR. To this end, the sponsor will have to submit a CTA under the CTR to the EU Portal and Database which relies on the existing dossier already assessed and authorized by the member states. The process will require a new cover letter and new application form (Part I and II) to be completed in CTIS.

The requirements and process governing product licensing, pricing and reimbursement vary from country to country, even though there is already some degree of legal harmonization among the EU member states resulting from

the national implementation of underlying EU legislation. In all cases, in the EU clinical trials must be conducted in accordance with the CTR, the International Conference on Harmonization guidelines on GCP and other applicable regulatory requirements.

To obtain regulatory approval to place a drug on the market in the United Kingdom or EU countries, we must submit a marketing authorization application. This application is similar to the NDA in the United States, with the exception of, among other things, country-specific document requirements. All application procedures require an application in the common technical document, format, which includes the submission of detailed information about the manufacturing and quality of the product, and nonclinical and clinical trial information. Drugs can be authorized in the European Union by using (i) the centralized authorization procedure, (ii) the mutual recognition procedure, (iii) the decentralized procedure or (iv) national authorization procedures. Until Brexit on January 31, 2020, the United Kingdom was part of the European Union, and the described marketing authorizations procedures (centralized, mutual recognition, decentralized) also applied in this country. During the transition period from February 1, 2020 to December 31, 2020, EU pharmaceutical law continued to apply to the United Kingdom; from January 1, 2021 EU pharmaceutical law applies to the United Kingdom in respect of Northern Ireland only. For a period of two years from January 1, 2021, when determining an application for a Great Britain Marketing Authorisations, the MHRA may still rely on a decision taken by the European Commission on the approval of a new marketing authorization in the centralized procedure. However, different procedures apply to obtain marketing authorizations in the European Union and the United Kingdom.

The European Commission created the centralized procedure for the approval of human drugs to facilitate marketing authorizations that are valid throughout the European Union and, by extension (after national implementing decisions) in Iceland, Liechtenstein and Norway, which, together with the EU member states, comprise the European Economic Area. Applicants file marketing authorization applications with the EMA, where they are reviewed by a relevant scientific committee, in most cases the Committee for Medicinal Products for Human Use (“CHMP”). The EMA forwards CHMP opinions to the European Commission, which uses them as the basis for deciding whether to grant a marketing authorization. This procedure results in a single marketing authorization granted by the European Commission that is valid across the European Union, as well as in Iceland, Liechtenstein and Norway. The centralized procedure is compulsory for human drugs that are: (i) derived from biotechnology processes, such as genetic engineering, (ii) contain a new active substance indicated for the treatment of certain diseases, such as HIV/AIDS, cancer, diabetes, neurodegenerative diseases, autoimmune and other immune dysfunctions and viral diseases, (iii) officially designated “orphan drugs” (drugs used for rare human diseases) and (iv) advanced-therapy medicines, such as gene-therapy, somatic cell-therapy or tissue-engineered medicines. The centralized procedure may at the voluntary request of the applicant also be used for human drugs that do not fall within the above-mentioned categories if the CHMP agrees that the human drug (a) contains a new active substance for indications other than those stated above; (b) constitutes a significant therapeutic, scientific or technical innovation or (c) authorization under the centralized procedure is in the interests of patients at the EU level.

Under the centralized procedure in the European Union, the maximum time frame for the evaluation of a marketing authorization application by the EMA is 210 “active” days (excluding clock stops, when additional written or oral information is to be provided by the applicant in response to questions asked by the CHMP), with adoption of the actual marketing authorization by the European Commission thereafter.

Accelerated evaluation might be granted by the CHMP in exceptional cases, when a medicinal product is expected to be of a major public health interest from the point of view of therapeutic innovation, defined by three cumulative criteria: the seriousness of the disease to be treated; the absence of an appropriate alternative therapeutic approach, and anticipation of exceptional high therapeutic benefit. In this circumstance, EMA ensures that the evaluation for the opinion of the CHMP is completed within 150 days and the opinion issued thereafter.

For those medicinal products for which the centralized procedure is not available, the applicant must submit marketing authorization applications to the national medicines regulators through one of three procedures: (i) the mutual recognition procedure (which may be used if the product has already been authorized in at least one other EU member state, and in which the EU member states are required to grant an authorization recognizing the existing authorization in the other EU member state, unless they identify a serious risk to public health), (ii) the decentralized procedure (in which applications are submitted simultaneously in two or more EU member states) or (iii) national authorization procedures (which results in a marketing authorization in a single EU member state).

Mutual Recognition Procedure

The mutual recognition procedure (“MRP”), for the approval of human drugs is an alternative approach to facilitate individual national marketing authorizations within the European Union. Basically, the MRP may be applied for all human drugs for which the centralized procedure is not obligatory. The MRP is applicable to the majority of conventional medicinal products, and may be used if the product has already been authorized in one or more member states.

The characteristic of the MRP is that the procedure builds on an already existing marketing authorization in a member state of the European Union that is used as a reference in order to obtain marketing authorizations in other EU member states. In the MRP, a marketing authorization for a drug already exists in one or more member states of the European Union and subsequently marketing authorization applications are made in other EU member states by referring to the initial marketing authorization. The member state in which the marketing authorization was first granted will then act as the reference member state. The member states where the marketing authorization is subsequently applied for act as concerned member states. The concerned member states are required to grant an authorization recognizing the existing authorization in the reference member state, unless they identify a serious risk to public health.

The MRP is based on the principle of the mutual recognition by EU member states of their respective national marketing authorizations. Based on a marketing authorization in the reference member state, the applicant may apply for marketing authorizations in other member states. In such case, the reference member state shall update its existing assessment report about the drug in 90 days. After the assessment is completed, copies of the report are sent to all member states, together with the approved summary of product characteristics, labeling and package leaflet. The concerned member states then have 90 days to recognize the decision of the reference member state and the summary of product characteristics, labeling and package leaflet. National marketing authorizations shall be granted within 30 days after acknowledgement of the agreement.

Should any member state refuse to recognize the marketing authorization by the reference member state, on the grounds of potential serious risk to public health, the issue will be referred to a coordination group. Within a timeframe of 60 days, member states shall, within the coordination group, make all efforts to reach a consensus. If this fails, the procedure is submitted to an EMA scientific committee for arbitration. The opinion of this EMA Committee is then forwarded to the European Commission, for the start of the decision-making process. As in the centralized procedure, this process entails consulting various European Commission Directorates General and the Standing Committee on Human Medicinal Products.

Data Exclusivity

In the United Kingdom and European Union, marketing authorization applications for generic medicinal products do not need to include the results of pre-clinical and clinical trials, but instead can refer to the data included in the marketing authorization of a reference product for which regulatory data exclusivity has expired. If a marketing authorization is granted for a medicinal product containing a new active substance, that product benefits from eight years of data exclusivity, during which generic marketing authorization applications referring to the data of that product may not be accepted by the regulatory authorities, and a further two years of market protection, during which such generic products may not be placed on the market. The two-year period may be extended to three years if during the first eight years a new therapeutic indication with significant clinical benefit over existing therapies is approved. In the United Kingdom, there will not be any changes as a result of Brexit to the exclusivity periods enjoyed by the existing holders of UK national MAs or converted EU MAs.

Orphan Medicinal Products

The EMA’s Committee for Orphan Medicinal Products (“COMP”), may recommend orphan medicinal product designation to promote the development of products that are intended for the diagnosis, prevention or treatment of life-threatening or chronically debilitating conditions affecting not more than five in 10,000 persons in the European Union. The COMP may only recommend orphan medicinal product designation when the product in question offers a significant clinical benefit over existing approved products for the relevant indication. Following a positive opinion by the COMP, the European Commission generally grants orphan status within 30 days. When the draft decision of the European Commission is not aligned with the COMP opinion, the COMP will reassess orphan status in parallel with EMA review of a marketing authorization application and orphan status may be withdrawn at if the drug no longer fulfills the orphan criteria (for instance, because a new product was approved for the indication and no data is

available to demonstrate a significant benefit over that new product). Orphan medicinal product designation entitles a party to financial incentives such as reduction of fees or fee waivers and ten years of market exclusivity is granted following marketing authorization. Each indication with an orphan designation confers ten years' market exclusivity for the particular indication. During this period, the competent authorities may not accept or approve any similar medicinal product for the same therapeutic indication, unless it offers a significant clinical benefit or if the holder of the marketing authorization for the original orphan drug is unable to supply sufficient quantities of the drug. This period may be reduced to six years if the orphan medicinal product designation criteria are no longer met, including where it is shown that the product is sufficiently profitable not to justify maintenance of market exclusivity.

Pediatric Development

In the European Union and the United Kingdom, companies developing a new medicinal product must agree to a Pediatric Investigation Plan (“PIP”), with the EMA or the MHRA and must conduct pediatric clinical trials in accordance with that PIP unless a waiver applies, for example, because the relevant disease or condition occurs only in adults. The marketing authorization application for the product must include the results of pediatric clinical trials conducted in accordance with the PIP, unless a waiver applies, or a deferral has been granted, in which case the pediatric clinical trials must be completed at a later date. Products that are granted a marketing authorization on the basis of the pediatric clinical trials conducted in accordance with the PIP are eligible for a six-month extension of the protection under a supplementary protection certificate (if the product covered by it qualifies for one at the time of approval). This pediatric reward is subject to specific conditions and is not automatically available when data in compliance with the PIP are developed and submitted.

On September 28, 2021, the European Commission launched a public consultation on the revision of the EU general pharmaceutical legislation. The revision of the EU pharmaceutical legislation is part of the broader Pharmaceutical Strategy for Europe (the “Strategy”) announced by the European Commission on November 25, 2020. Among other things, the Strategy includes the overhaul of the orphan and paediatric legislation, through the creation of more tailored incentives to stimulate the development and commercialization of medicines that address unmet needs. The legislative proposals are expected to be adopted in the last quarter of 2022.

If we fail to comply with applicable foreign regulatory requirements, we may be subject to, among other things, fines, suspension of clinical trials, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

In addition, most countries are parties to the Single Convention on Narcotic Drugs 1961 and the Convention on Psychotropic Substances 1971, which governs international trade and domestic control of narcotic substances, including cannabis extracts. Countries may interpret and implement their treaty obligations in a way that creates a legal obstacle to our obtaining marketing approval for our product candidates in those countries. These countries may not be willing or able to amend or otherwise modify their laws and regulations to permit our product candidates to be marketed, or achieving such amendments to the laws and regulations may take a prolonged period of time. In that case, we would be unable to market our products in those countries in the near future or perhaps at all.

In the United Kingdom, medicinal products are subject to extensive regulation by the MHRA, which is an executive agency, sponsored by the Department of Health and Social Care. MHRA regulates by ensuring that medicines, medical devices and blood components for transfusion meet applicable standards of safety, quality and efficacy, in addition to supporting innovation and research and development that is beneficial to public health.

Reimbursement

Sales of pharmaceutical products in the United States will depend, in part, on the extent to which the costs of the products will be covered by third-party payers, such as government health programs, and commercial insurance and managed health care organizations. These third-party payers are increasingly challenging the prices charged for medical products and services. Additionally, the containment of health care costs has become a priority of federal and state governments, and the prices of drugs have been a focus in this effort. The U.S. government, state legislatures and foreign governments have shown significant interest in implementing cost-containment programs, including price controls, utilization management and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit our net revenue and results. If these third-party payers do not

consider our products to be cost effective compared to other available therapies, they may not cover our products after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products on a profitable basis.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (“MMA”), imposed requirements for the distribution and pricing of prescription drugs for Medicare beneficiaries and included a major expansion of the prescription drug benefit under Medicare Part D. Under Part D, Medicare beneficiaries may enroll in prescription drug plans offered by private entities that provide coverage of outpatient prescription drugs. Part D is available through both stand-alone prescription drug benefit plans and prescription drug coverage as a supplement to Medicare Advantage plans. Unlike Medicare Parts A and B, Part D coverage is not standardized. Part D prescription drug plan sponsors are not required to pay for all covered Part D drugs, and each drug plan can develop its own drug formulary that identifies which drugs it will cover and at what tier or level. However, Part D prescription drug formularies must include drugs within each therapeutic category and class of covered Part D drugs, though not necessarily all the drugs in each category or class. Any formulary used by a Part D prescription drug plan must be developed and reviewed by a pharmacy and therapeutic committee. Government payment for some of the costs of prescription drugs may increase demand for products for which we receive marketing approval. However, any negotiated prices for our products covered by a Part D prescription drug plan will likely be lower than the prices we might otherwise obtain. Moreover, while the MMA applies only to drug benefits for Medicare beneficiaries, private payers often follow Medicare coverage policy and payment limitations in setting their own payment rates. Any reduction in payment that results from the MMA may result in a similar reduction in payments from nongovernmental payers.

On February 17, 2009, President Obama signed into law The American Recovery and Reinvestment Act of 2009. This law provides funding for the federal government to compare the effectiveness of different treatments for the same illness. This research is overseen by the Department of Health and Human Services, the Agency for Healthcare Research and Quality and the National Institutes for Health, and periodic reports on the status of the research and related expenditures must be made to Congress. Although the results of the comparative effectiveness studies are not intended to mandate coverage policies for public or private payers, it is not clear how such a result could be avoided and what if any effect the research will have on the sales of our product candidates, if any such product or the condition that it is intended to treat is the subject of a study. It is also possible that comparative effectiveness research demonstrating benefits in a competitor’s product could adversely affect the sales of our product candidates. Decreases in third-party reimbursement for our product candidates or a decision by a third-party payer to not cover our product candidates could reduce physician usage of the product candidate and have a material adverse effect on our sales, results of operations and financial condition.

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act of 2010 (collectively, the “ACA”) was enacted in March 2010. The ACA was enacted with the goal of expanding coverage for the uninsured while at the same time containing overall health care costs. With regard to pharmaceutical products, among other things, the ACA expanded and increased industry rebates for drugs covered under Medicaid programs and made changes to the coverage requirements under the Medicare D program. We still cannot fully predict the impact of the ACA on pharmaceutical companies as many of the ACA reforms require the promulgation of detailed regulations implementing the statutory provisions which has not yet been completed, and the Centers for Medicare & Medicaid Services has publicly announced that it is analyzing the ACA regulations and policies that have been issued to determine if changes should be made. In addition, although the U.S. Supreme Court has upheld the constitutionality of most of the ACA, some states have stated their intentions to not implement certain sections of the ACA and some members of Congress are still working to repeal the ACA. These challenges add to the uncertainty of the changes enacted as part of the ACA. In addition, the current legal challenges to the ACA, as well as Congressional efforts to repeal the ACA, add to the uncertainty of the legislative changes enacted as part of the ACA.

In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, some EU jurisdictions operate positive and negative list systems under which products may only be marketed once a reimbursement price has been agreed. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost-effectiveness of a particular product candidate to currently available therapies. Other member states allow companies to fix their own prices for medicines but monitor and control company profits. Such differences in national pricing regimes may create price differentials between EU member states. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products.

Historically, products launched in the European Union do not follow price structures of the United States. In the European Union, the downward pressure on healthcare costs in general, particularly prescription medicines, has become intense. As a result, barriers to entry of new products are becoming increasingly high and patients are unlikely to use a drug product that is not reimbursed by their government or other public or private payers.

Other Health Care Laws and Compliance Requirements

In the United States, our activities are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including the CMS, other divisions of the U.S. Department of Health and Human Services (e.g., the Office of Inspector General), the U.S. Department of Justice and individual U.S. Attorney offices within the Department of Justice, and state and local governments. For example, sales, marketing and scientific/educational grant programs must comply with the anti-fraud and abuse provisions of the Social Security Act, the False Claims Act, the privacy provisions of the Health Insurance Portability and Accountability Act, and similar state laws, each as amended. Pricing and rebate programs must comply with the Medicaid rebate requirements of the Omnibus Budget Reconciliation Act of 1990 and the Veterans Health Care Act of 1992 (“VHCA”), each as amended. If products are made available to authorized users of the federal supply schedule, additional laws and requirements apply. Under the VHCA, drug companies are required to offer certain drugs at a reduced price to a number of federal agencies including the U.S. Department of Veteran Affairs and U.S. Department of Defense, the Public Health Service and certain private Public Health Service-designated entities in order to participate in other federal funding programs including Medicare and Medicaid. In addition, discounted prices must be offered for certain U.S. Department of Defense purchases for its TRICARE program via a rebate system. Participation under the VHCA requires submission of pricing data and calculation of discounts and rebates pursuant to complex statutory formulas, as well as the entry into government procurement contracts governed by the federal acquisition regulations.

In order to distribute products commercially, we must comply with state laws that require the registration of manufacturers and wholesale distributors of pharmaceutical products in a state, including, in certain states, manufacturers and distributors who ship products into the state, even if such manufacturers or distributors have no place of business within the state. Several states have enacted legislation requiring pharmaceutical companies to establish marketing compliance programs, file periodic reports with the state, make periodic public disclosures on sales and marketing activities or register their sales representatives. Other legislation has been enacted in certain states prohibiting certain other sales and marketing practices. All of our activities are potentially subject to federal and state consumer protection and unfair competition laws. Likewise, these activities are subject to authorization or license requirements, or other legal requirements, under EU or EU member states’ law, or the law of other countries where we operate or have products manufactured or distributed.

Cost of Compliance with Environmental Laws

Our operations are subject to regulations under various federal, state, local and foreign laws concerning the environment, including laws addressing the discharge of pollutants into the air and water, the management and disposal of hazardous substances and wastes, and the cleanup of contaminated sites. We could incur substantial costs, including cleanup costs, fines and civil or criminal sanctions and third-party damage or personal injury claims, if in the future we were to violate or become liable under environmental laws. We are not aware of any costs or effects of our compliance with environmental laws.

Climate Change Related Regulation

Our operations are focused on research and development of pharmaceutical products, and a significant portion of such research and development is conducted outside of our facilities and by outsourced contract research organizations or universities. As a result, we do not anticipate any regulation surrounding climate change to impact our operations.

However, there is potential for more frequent and severe weather events and water availability challenges that may impact the facilities of our partners and our future suppliers. We cannot provide assurance that physical risks to the facilities of our partners and future suppliers and supply chain due to climate change will not occur in the future. We periodically review our vulnerability to potential weather-related risks and other natural disasters and update our assessments accordingly. Based on our reviews, we do not believe these potential risks are material to our operations at this time.

Employees and Human Capital Management

As of March 28, 2022, we and our subsidiaries had seven fulltime employees. Two of these employees are located in the United Kingdom, and five are located in the United States.

In addition, we employ a limited number of part-time employees on a temporary basis, as well as scientific advisors, consultants and service providers, mainly through academic institutions and contract research organizations.

We have never had a work stoppage and none of our employees are covered by collective bargaining agreements or represented by a labor union. We believe that we have good relationships with our employees.

Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing, and integrating our existing and new employees, advisors, and consultants. The principal purposes of our equity and cash incentive plans are to attract, retain and reward personnel through the granting of stock-based and cash-based compensation awards, in order to increase stockholder value and the success of our company by motivating such individuals to perform to the best of their abilities and achieve our objectives.

In response to the COVID-19 pandemic, we focused our health and safety efforts on protecting our employees and their families. We swiftly implemented changes that we determined were in the best interest of our employees and the communities in which we operate, and which are aligned with guidance from the Centers for Disease Control and Prevention and in compliance with state and local regulations. This includes having all of our employees work from home.

COVID-19

The extent to which COVID-19 may impact our business will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the duration of the outbreak, travel restrictions and social distancing in the United States and other countries, business closures or business disruptions, and the effectiveness of actions taken in the United States and other countries to contain and treat the disease. Should the COVID-19 pandemic continue, our plans could be delayed or interrupted. The spread of COVID-19 has also created global economic uncertainty, which may cause partners, suppliers and potential customers to closely monitor their costs and reduce their spending budget. The foregoing could materially adversely affect the clinical trials, supply chain, financial condition and financial performance of our company.

Enrollment of patients in our clinical trials, maintaining patients in our ongoing clinical trials, doing follow up visits with recruited patients and collecting data have been, and may continue to be, delayed or limited as certain of our clinical trial sites limit their onsite staff or temporarily close as a result of the COVID-19 pandemic and ongoing government restrictions. In addition, patients may not be able or willing to visit clinical trial sites for dosing or data collection purposes due to limitations on travel and physical distancing imposed or recommended by federal or state governments or patients' reluctance to visit the clinical trial sites during the pandemic. These factors resulting from the COVID-19 pandemic could delay or prevent the anticipated readouts from our clinical trials, which could ultimately delay or prevent our ability to generate revenues and could have a material adverse effect on our results of operations.

The follow-up for patient data and statistical analysis for our Phase 2b Dupuytren's Contracture clinical trial was delayed as a result of COVID-19, but such follow-up and statistical analysis has now been completed, and on April 29, 2022, final results from the trial were published in *The Lancet Rheumatology*. The study demonstrated that the primary end point of nodule hardness and the secondary end point of nodule size on ultrasound scan were met with statistically significant differences. There were no treatment-related serious adverse events in the trial.

Properties

None.

Legal Proceedings

From time to time, we may be a party to litigation that arises in the ordinary course of our business.

Such current litigation or other legal proceedings are described in, and incorporated by reference to, "Note 12 - Commitments and Contingencies", under the heading "Litigation and Other Loss Contingencies", in the consolidated financial statements included herein beginning on page F-1. We believe that the resolution of currently pending

matters will not individually or in the aggregate have a material adverse effect on our financial condition or results of operations. However, assessment of the current litigation or other legal claims could change in light of the discovery of facts not presently known to us or by judges, juries or other finders of fact, which are not in accord with management's evaluation of the possible liability or outcome of such litigation or claims.

Additionally, the outcome of litigation is inherently uncertain. If one or more legal matters were resolved against us in a reporting period for amounts in excess of management's expectations, our financial condition and operating results for that reporting period could be materially adversely affected.

Corporate History

Formation

We were formed as a blank check company organized under the laws of the State of Delaware on September 7, 2016. We were formed for the purpose of effecting a merger, capital stock exchange, stock purchase, asset acquisition or other similar business combination with one or more operating businesses. Since formation, we focused our efforts on acquiring an operating company in the healthcare and related wellness industry although our efforts in identifying a prospective target business were not limited to a particular industry.

Initial Public Offering

On June 7, 2017, pursuant to our Initial Public Offering (the "IPO"), we sold 11,500,000 Units at a purchase price of \$10.00 per Unit, inclusive of 1,500,000 Units sold to the underwriters on June 23, 2017 upon the underwriters' election to fully exercise their over-allotment option, generating gross proceeds of \$115,000,000. Each "Unit" consisted of one share of our common stock, one right to receive one-tenth of one share of our common stock upon the consummation of a business combination ("Right"), and one redeemable warrant to purchase one-half of one share of our common stock (the "Public Warrants"). Each Public Warrant entitles the holder to purchase one-half of one share of common stock at an exercise price of \$5.75 per half share (\$11.50 per whole share), subject to adjustment. No fractional shares will be issued upon exercise of the Public Warrants. The Public Warrants became exercisable 12 months from the closing of the IPO, and expire five years after the completion of the Business Combination.

We may redeem the Public Warrants, in whole and not in part, at a price of \$0.01 per Public Warrant upon 30 days' notice ("30-day redemption period"), only in the event that the last sale price of the common stock equals or exceeds \$18.00 per share for any 20 trading days within a 30-trading day period ending on the third trading day prior to the date on which notice of redemption is given, provided there is an effective registration statement with respect to the shares of common stock underlying such Public Warrants and a current prospectus relating to those shares of common stock is available throughout the 30-day redemption period. If we call the Public Warrants for redemption as described above, our management will have the option to require all holders that wish to exercise Public Warrants to do so on a "cashless basis." In determining whether to require all holders to exercise their Public Warrants on a "cashless basis," management will consider, among other factors, our cash position, the number of Public Warrants that are outstanding and the dilutive effect on our stockholders of issuing the maximum number of shares of common stock issuable upon the exercise of the Public Warrants. Each holder of a Right received one-tenth (1/10) of one share of common stock upon consummation of the Business Combination. No fractional shares were issued upon exchange of the Rights.

Private Placement

Concurrent with the closing of the IPO, the Sponsor and the underwriters purchased an aggregate of 450,000 of unregistered Units ("Private Units") at \$10.00 per Unit, generating gross proceeds of \$4,500,000 in a private placement. In addition, on June 23, 2017, we consummated the sale of an additional 52,500 Private Units at a price of \$10.00 per Unit, which were purchased by the Sponsor and underwriters, generating gross proceeds of \$525,000. Of these, 377,500 Private Units were purchased by the Sponsor and 125,000 Private Units were purchased by the underwriters. The proceeds from the Private Units were added to the net proceeds from the IPO held in a Trust Account (the "Trust Account"). The Private Units (including their component securities) were not transferable, assignable or salable until 30 days after the completion of the Business Combination and the warrants included in the Private Units (the "Private Placement Warrants") will be non-redeemable so long as they are held by the Sponsor, the underwriters or their permitted transferees. If the Private Placement Warrants are held by someone other than the Sponsor, the underwriters or their permitted transferees, the Private Placement Warrants will be redeemable by us and exercisable

by such holders on the same basis as the warrants included in the Units sold in the IPO. In addition, for as long as the Private Placement Warrants are held by the underwriters or its designees or affiliates, they may not be exercised after five years from the effective date of the registration statement related to the IPO. Otherwise, the Private Placement Warrants have terms and provisions that are identical to those of the warrants sold as part of the Units in the IPO and have no net cash settlement provisions.

Business Combination

On July 25, 2019, we entered into a Business Combination Agreement (as amended from time to time, the “Business Combination Agreement”), with KBL Merger Sub, Inc. (“Merger Sub”), 180 Life Corp. (f/k/a 180 Life Sciences Corp.) (“180”), Katexco Pharmaceuticals Corp. (“Katexco”), CannBioRex Pharmaceuticals Corp. (“CBR Pharma”), 180 Therapeutics L.P. (“180 LP” and together with Katexco and CBR Pharma, the “180 Subsidiaries” and, together with 180 Life Sciences Corp., the “180 Parties”), and Lawrence Pemble, in his capacity as representative of the stockholders of the 180 Parties. The business combination described in the Business Combination Agreement (the “Business Combination”), closed and became effective on November 6, 2020 (the “Closing”). Pursuant to the Business Combination Agreement, among other things, Merger Sub merged with and into 180, with 180 continuing as the surviving entity and a wholly-owned subsidiary of the Company (the “Merger”). In connection with, and prior to, the Closing, 180 Life Sciences Corp. filed a Certificate of Amendment of its Certificate of Incorporation in Delaware to change its name to 180 Life Corp., and our company (which was known as of our entry into the Business Combination as KBL Merger Corp. IV, changed our name to 180 Life Sciences Corp.).

180 was incorporated in Delaware on January 28, 2019. Prior to the Closing, 180 operated through three subsidiaries: 180 LP, a Delaware limited partnership formed on September 6, 2013; Katexco, a company incorporated in British Columbia, Canada on March 7, 2018; and CBR Pharma, a company incorporated in British Columbia, Canada on March 8, 2018.

In July 2019, 180 and each of 180 LP, Katexco and CBR Pharma completed a corporate restructuring, pursuant to which 180 LP, Katexco and CBR Pharma became wholly-owned subsidiaries of 180LS (the “Reorganization”). The corporate restructuring arrangements with respect to Katexco and CBR Pharma were completed under the *Business Corporations Act* (British Columbia).

On November 6, 2020, the Company consummated the Business Combination following a special meeting of stockholders held on November 5, 2020, where the stockholders of the Company considered and approved, among other matters, a proposal to adopt the Business Combination. Pursuant to the Business Combination Agreement, among other things, Merger Sub merged with and into 180, with 180 continuing as the surviving entity and a wholly-owned subsidiary of the Company. The Merger became effective on November 6, 2020 (such time, the “Effective Time”, and the closing of the Merger being referred to herein as the “Closing”). In connection with, and prior to, the Closing, 180 filed a Certificate of Amendment of its Certificate of Incorporation in Delaware to change its name to 180 Life Corp. and KBL Merger Corp. IV changed its name to 180 Life Sciences Corp.

At the Effective Time, each share of 180 common stock issued and outstanding prior to the Effective Time was automatically converted into the right to receive approximately 168.3784 shares of the common stock, par value \$0.0001 per share, of the Company (such shares of Common Stock issuable to the common stockholders of 180 pursuant to the Business Combination Agreement, the “Merger Consideration Shares”). An aggregate of 17,494,725 shares of common stock have been issued to date to the common stockholders of 180 as Merger Consideration Shares, including the Escrow Shares (as defined below). Also at the Effective Time, each share underlying the 180 preferred stock issued and outstanding prior to the Effective Time was converted into the right to receive one Class C Special Voting Share of the Company, or one Class K Special Voting Share of the Company, as applicable (such shares, the “Special Voting Shares”). The Special Voting Shares entitle the holder thereof to an aggregate number of votes, on any particular matter, proposition or question, equal to the number of Exchangeable Shares (as defined below) of each of CannBioRex Purchaseco ULC and Katexco Purchaseco ULC, Canadian subsidiaries of 180, respectively, that are outstanding from time to time.

As a result of the Merger, the existing exchangeable shares (collectively, the “Exchangeable Shares”) of CannBioRex Purchaseco ULC and/or Katexco Purchaseco ULC were adjusted in accordance with the share provisions in the articles of CannBioRex Purchaseco ULC or Katexco Purchaseco ULC, as applicable, governing the Exchangeable Shares such that they were multiplied by the exchange ratio for the Merger and became exchangeable into shares of Common Stock. The Exchangeable Shares entitle the holders to dividends and other rights that are substantially

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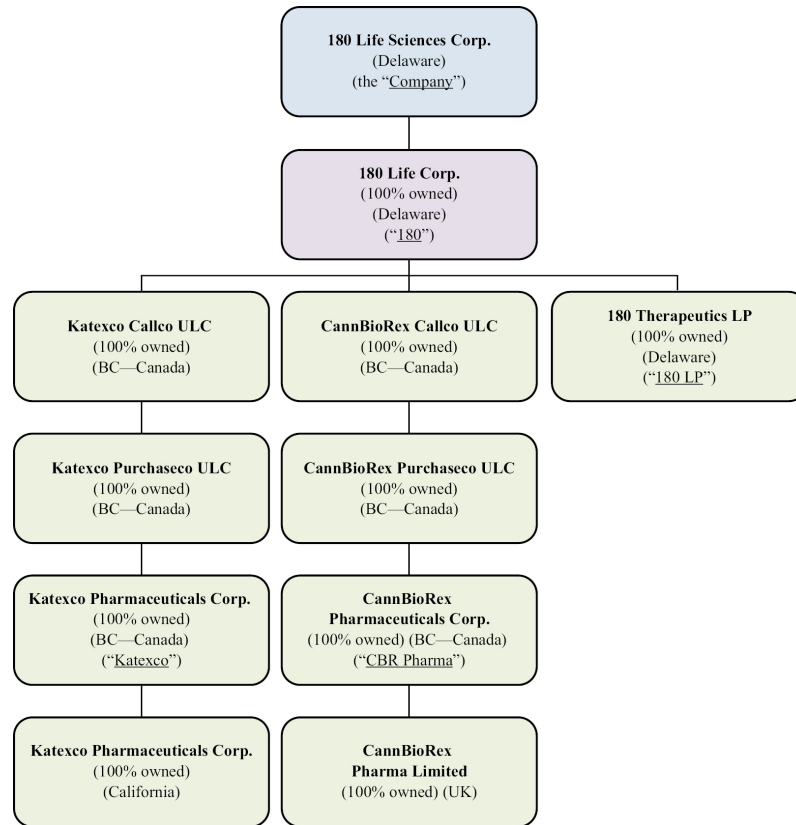
economically equivalent to those of holders of Common Stock, and holders of Exchangeable Shares have the right to vote at meetings of the stockholders of the Company. An aggregate of 5,275 shares of Common Stock are reserved for issuance to the holders of the Exchangeable Shares upon the exchange thereof.

Pursuant to the Business Combination Agreement, 1,049,999 of the Merger Consideration Shares (such shares, the “Escrow Shares”) were deposited into an escrow account (the “Escrow Account”) to serve as security for, and the exclusive source of payment of, the Company’s indemnity rights under the Business Combination Agreement, all of which will be released to the same stockholders 12 months following the Closing.

As a result of the Business Combination, the former stockholders of 180 became the controlling stockholders of the Company and 180 became a wholly-owned subsidiary of the Company. The Business Combination was accounted for as a reverse merger, whereby 180 is considered the acquirer for accounting and financial reporting purposes.

In connection with the Closing, the Company withdrew \$9,006,493 of funds from the Trust Account (as defined below) to fund the redemptions of 816,461 shares.

The chart below shows our current organizational structure:



About Us

Our principal executive offices are located at 3000 El Camino Real, Bldg. 4, Suite 200, Palo Alto, CA 94306, and our telephone number is (650) 507-0669. We maintain a website at www.180lifesciences.com. We have not incorporated by reference into this prospectus the information in, or that can be accessed through, our website, and you should not consider it to be a part of this prospectus.

Jumpstart Our Business Startups Act

In April 2012, the Jumpstart Our Business Startups Act (“JOBS Act”) was enacted into law. The JOBS Act provides, among other things:

- Exemptions for “emerging growth companies” from certain financial disclosure and governance requirements for up to five years and provides a new form of financing to small companies;
- Amendments to certain provisions of the federal securities laws to simplify the sale of securities and increase the threshold number of record holders required to trigger the reporting requirements of the Exchange Act;
- Relaxation of the general solicitation and general advertising prohibition for Rule 506 offerings;
- Adoption of a new exemption for public offerings of securities in amounts not exceeding \$50 million; and
- Exemption from registration by a non-reporting company of offers and sales of securities of up to \$1,000,000 that comply with rules to be adopted by the SEC pursuant to Section 4(6) of the Securities Act and exemption of such sales from state law registration, documentation or offering requirements.

In general, under the JOBS Act a company is an “emerging growth company” if its initial public offering (“IPO”) of common equity securities was affected after December 8, 2011 and the company had less than \$1.07 billion of total annual gross revenues during its last completed fiscal year. A company will no longer qualify as an “emerging growth company” after the earliest of:

- (i) the completion of the fiscal year in which the company has total annual gross revenues of \$1.07 billion or more,
- (ii) the completion of the fiscal year of the fifth anniversary of the company’s IPO (December 31, 2022) ;
- (iii) the company’s issuance of more than \$1 billion in non convertible debt in the prior three-year period, or
- (iv) the company becoming a “large accelerated filer” as defined under the Exchange Act.

The JOBS Act provides additional new guidelines and exemptions for non-reporting companies and for non-public offerings. Those exemptions that impact us are discussed below.

Financial Disclosure. The financial disclosure in a registration statement filed by an “emerging growth company” pursuant to the Securities Act, will differ from registration statements filed by other companies as follows:

- (i) audited financial statements required for only two fiscal years (provided that “smaller reporting companies” such as we are only required to provide two years of financial statements);
- (ii) selected financial data required for only the fiscal years that were audited (provided that “smaller reporting companies” such as we are not required to provide selected financial data as required by Item 301 of Regulation S-K); and
- (iii) executive compensation only needs to be presented in the limited format now required for “smaller reporting companies”.

However, the requirements for financial disclosure provided by Regulation S-K promulgated by the Rules and Regulations of the SEC already provide certain of these exemptions for smaller reporting companies. We are a smaller reporting company. Currently a smaller reporting company is not required to file as part of its registration statement selected financial data and only needs to include audited financial statements for its two most current fiscal years with no required tabular disclosure of contractual obligations.

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The JOBS Act also exempts our independent registered public accounting firm from having to comply with any rules adopted by the PCAOB after the date of the JOBS Act's enactment, except as otherwise required by SEC rule.

The JOBS Act further exempts an "emerging growth company" from any requirement adopted by the PCAOB for mandatory rotation of our accounting firm or for a supplemental auditor report about the audit.

Internal Control Attestation. The JOBS Act also provides an exemption from the requirement of our independent registered public accounting firm to file a report on our internal control over financial reporting, although our management is still required to file its report on the adequacy of our internal control over financial reporting.

Section 102(a) of the JOBS Act exempts "emerging growth companies" from the requirements in §14A(e) of the Exchange Act for companies with a class of securities registered under the Exchange Act to hold stockholder votes for executive compensation and golden parachutes.

Other Items of the JOBS Act. The JOBS Act also provides that an "emerging growth company" can communicate with potential investors that are qualified institutional buyers or institutions that are accredited to determine interest in a contemplated offering either prior to or after the date of filing the respective registration statement. The JOBS Act also permits research reports by a broker or dealer about an "emerging growth company" regardless of whether such report provides sufficient information for an investment decision. In addition, the JOBS Act precludes the SEC and FINRA from adopting certain restrictive rules or regulations regarding brokers, dealers and potential investors, communications with management and distribution of research reports on the "emerging growth company's" initial public offerings (IPOs).

Section 106 of the JOBS Act permits "emerging growth companies" to submit registration statements under the Securities Act on a confidential basis provided that the registration statement and all amendments thereto are publicly filed at least 15 days before the issuer conducts any road show. This is intended to allow "emerging growth companies" to explore the IPO option without disclosing to the market the fact that it is seeking to go public or disclosing the information contained in its registration statement until the company is ready to conduct a roadshow.

Election to Opt Out of Transition Period. Section 102(b)(1) of the JOBS Act exempts "emerging growth companies" from being required to comply with new or revised financial accounting standards until private companies (that is, those that have not had a Securities Act registration statement declared effective or do not have a class of securities registered under the Exchange Act) are required to comply with the new or revised financial accounting standard.

The JOBS Act provides that a company can elect to opt out of the extended transition period and comply with the requirements that apply to non-emerging growth companies but any such election to opt out is irrevocable. We have elected not to opt out of the transition period.

MANAGEMENT**Executive Officers and Directors**

The following table sets forth information regarding our directors as of the date of this prospectus. Directors are elected for a period of one year and thereafter serve until the next annual meeting at which their successors are duly elected by the stockholders.

Name	Age	Position	Date First Appointed as Officer or Directors	Director Class*
Lawrence Steinman, M.D.	74	Executive Co-Chairman	November 2020	Class I
James N. Woody, M.D., Ph.D.	79	Chief Executive Officer and Director	November 2020	Class I
Russell T. Ray, MBA	75	Director	July 2021	Class I
Francis Knuettel II, MBA	56	Director	July 2021	Class I
Sir Marc Feldmann, Ph.D.	77	Executive Co-Chairman	November 2020	Class II
Larry Gold, Ph.D.	80	Director	November 2020	Class II
Donald A. McGovern, Jr., MBA	71	Director	November 2020	Class II
Teresa M. DeLuca, M.D., MBA	56	Director	July 2021	Class II
Pamela G. Marrone, Ph.D.	65	Director	July 2021	Class II

* Terms expire at the 2022 annual meeting of stockholders (Class II) and the annual meeting of stockholders to be held in 2023 (Class I).

Biographical Information about our Directors***Lawrence Steinman, M.D. — Executive Co-Chairman (Class I Director)***

Lawrence Steinman, M.D. has served as Executive Co-Chairman since the Closing in November 2020. He also has primary scientific responsibility for our *α7nAChR* platform. Dr. Steinman served as Co-Chairman of 180 and as a member of its board of directors since April 2019. Prior to joining 180, he served on the board of directors of Centocor Biotech, Inc., from 1989 to 1998, the board of directors of Neurocine Biosciences from 1997 to 2005, the board of directors of Atreca from 2010 – 2019, the board of directors of BioAtla, Inc. (NASDAQ:BCAB) from July 2020 to present (he also serves on the Compensation Committee and Nominating and Corporate Governance Committee of BioAtla), the board of directors of Tolerion, Inc. from 2013 to 2020 and the board of directors of Alpha5 Integrin from 2020 to the present, and the board of directors of Pasithea Therapeutics Corp. (NASDAQ:KTTA) from August 2020 to the present, and also serves on the Compensation Committee and Nominating and Corporate Governance Committee of Pasithea. He is currently the George A. Zimmermann Endowed Chair in the Neurology Department at Stanford University and previously served as the Chair of the Interdepartmental Program in Immunology at Stanford University Medical School from 2003 to 2011. He is a member of the National Academy of Medicine and the National Academy of Sciences. He also founded the Steinman Laboratory at Stanford University, which is dedicated to understanding the pathogenesis of autoimmune diseases, particularly multiple sclerosis and neuromyelitis optica. He received the Frederic Sasse Award from the Free University of Berlin in 1994, the Sen. Jacob Javits Award from the U.S. Congress in 1988 and 2002, the John Dystel Prize in 2004 from the National MS Society in the U.S., the Charcot Prize for Lifetime Achievement in Multiple Sclerosis Research in 2011 from the International Federation of MS Societies and the Anthony Cerami Award in Translational Medicine by the Feinstein Institute of Molecular Medicine in 2015. He also received an honorary Ph.D. at the Hasselt University in 2008. He received his BA (physics) from Dartmouth College in 1968 and his MD from Harvard University in 1973. He also completed a fellowship in chemical immunology at the Weizmann Institute (1974 – 1977) and was an intern and resident at Stanford University Medical School. We believe Dr. Steinman's extensive experience leading the research and development of numerous therapeutics for biotechnology companies qualifies him to serve as a director.

Sir Marc Feldmann, Ph.D. — Executive Co-Chairman (Class II Director)

Sir Marc Feldmann, Ph.D. has served as Executive Co-Chairman since the Closing in November 2020. He also has primary scientific responsibility for our CBD analogues programs. Sir Feldmann has served as Co-Chairman of 180 and as a member of its board of directors since April 2018. Since June 1, 2018, Sir Feldmann has served as Chairman, Chief Executive Officer and Executive Director of CannBioRex. Since August 2018, Sir Feldmann has served as a director of Enosi Life Sciences Corp., a company which he founded that is a pre-clinical company focused on cancer and autoimmune deficiencies. He is an Emeritus Prof. at the Kennedy Institute of Rheumatology, Department of Orthopedics, Rheumatology and Musculoskeletal Sciences at Oxford. He is recognized as an expert in the development of anti-inflammatory therapeutics and has published over 700 papers reflecting an overarching commitment to both the cellular aspects of inflammatory autoimmune biology messenger molecules, cytokines and therapeutic applications. In 1983, he published a new hypothesis for the mechanism of induction of autoimmune diseases, highlighting the role of cytokines, which are potent signaling proteins and drive important processes like inflammation, immunity and cell growth. In collaboration with Sir Ravinder Maini, he showed that TNF was a key driver of rheumatoid arthritis, and that blocking it was beneficial, in novel test tube systems (*in vitro*) using human disease tissue from rheumatoid joints, animal models and a series of clinical trials. They developed a key patent for the targeting of excessive TNF Alpha and its optimal use, which was licensed to Centocor and eventually led to the acquisition of Centocor by Johnson & Johnson. He is a Fellow of the Royal College of Physicians, the Royal College of Pathologists. In recognition of his work, which has led to anti-TNF currently being the best-selling drug class in the world, Sir Feldmann was elected to the Academy of Medical Sciences and the Royal Society in London, is a Fellow of the Australian Academy of Science, and is a Foreign Member of the National Academy of Sciences, USA. He was knighted by Queen Elizabeth II in 2010 for his outstanding services to medicine, and also received the Australian equivalent, Companion of Honour (AC). He was awarded the Crafoord Prize in 2000, the Albert Lasker Award for Clinical Medical Research in 2003, the Cameron Prize for Therapeutics by the University of Edinburgh in 2004, the European Inventor Award (Lifetime Achievement) by the European Patent Office in 2007, the John Curtin Medal of the Australian National University in 2007 and the Dr. Paul Janssen Award for Biomedical Research in 2008, the Ernst Schering Prize in 2010 and the Gairdner International Award in 2014. He graduated with an MBBS degree from the University of Melbourne in 1967 and earned a Ph.D. in Immunology at the Walter and Eliza Hall Institute of Medical Research in 1972. He undertook postdoctoral research at the Imperial Cancer Research Fund's Tumour Immunology Unit in 1972 before moving to the Charing Cross Sunley Research Centre in 1985, which later merged with the Kennedy Institute of Rheumatology which then joined the Faculty of Medicine at Imperial College in 2000 and was transferred to the University of Oxford in 2011. We believe Sir Feldmann's significant and successful experience leading the research and development of numerous therapeutics make him qualified to serve as a director.

James N. Woody, M.D., Ph.D. — Chief Executive Officer and Director (Class I Director)

James N. Woody, M.D., Ph.D. has served as our Chief Executive Officer and as a director since the Closing in November 2020. Dr. Woody has served as the Chief Executive Officer of 180 since July 2020, and as a director of 180 since September 2020. Dr. Woody was a founder and served as Chairman of the board of directors for Viracta Pharmaceuticals, a lymphoma therapeutic company (July 2014 to December 2020). With the company undergoing a reverse merger into a public company, he resigned his Board member position and continues as a Board observer. He served as a General Partner of Latterell Venture Partners (February 2006 to December 2019) then moved to a Venture Partner position, for the two remaining LVP legacy companies, Viracta (NASDAQ:VIRX), resigning when they completed a reverse merger in February 2021, and Perceptimed, a Pharmacy management company, where he continues to serve on the Board as they plan their initial public offering. He serves as an interim Chief Executive Officer for MaraBio Systems Inc., a startup autism diagnostic company, a position he held since November 2018, and also serves as Chairman of the Board for Enosi Life Sciences, a next generation TNF inhibitor company, which position he has held since July 2020. He served as a Board member of Integenix Inc. (2012 to 2018), and Neuraltus Pharmaceuticals, Inc. (February 2009 to December 2019). Dr. Woody was the founding Chief Executive Officer and Chairman of the Board of OncoMed Pharmaceuticals, Inc. (2004 to 2014), a NASDAQ listed company with a focus on antibodies targeting cancer stem cells. He previously served as a member of the board of directors of Protein Simple, formerly Cell Biosciences (2005 to 2014), acquired by Bio-Techne; Forte Bio Corporation, acquired by PALL in 2012 (2005 to 2012); Bayhill Therapeutics, Inc. (2004 to 2012); Femta Pharmaceuticals (2008 to 2012); and Proteolix, Inc. (2005 to 2009), acquired by Onyx for the multiple myeloma drug Carfilzomib. Dr. Woody also served on the board of directors of Talima Therapeutics, Inc. (2007 to 2011); HemaQuest Pharmaceuticals, Inc. (2009 to 2013); Calistoga (2009 to 2011), acquired by Gilead for the lymphoma drug Idealsib (Zeldig); Tetralogic (2008 to 2014), a NASDAQ listed

company; and Avidia (2003 to 2006), acquired by Amgen. From 1996 to 2004, He was President and General Manager of Roche Biosciences, Palo Alto, California (formerly Syntex), where he had responsibility for all bioscience research and development, ranging from genetics and genomics to clinical development of numerous new pharmaceuticals, as well as former Syntex administrative matters. From 1991 to 1996, Dr. Woody served as Senior Vice President of Research and Development and Chief Scientific Officer of Centocor, Inc., Malvern, Pennsylvania, where he assisted in the development of several new major antibody-based therapeutics in the fields of oncology and autoimmune and cardiovascular disease, including Remicade®, a multi-billion dollar pharmaceutical. Prior to that time, he served as a Medical Officer in the U.S. Navy, retiring as a CAPT (06) and as Commanding Officer of the Naval Medical Research and Development Command in 1991. Dr. Woody and his colleagues, with U.S. Navy and Congressional approval, founded the National Marrow Donor Program. He is a member of the Research Advisory Committee for the Veterans Gulf War Illness. Dr. Woody was a member of the board of directors of the Lucille Packard (Stanford) Children's Hospital (LPCH) in Palo Alto, California, (July 2002 to December 2020), serving as Chairman of the LPCH Quality Service and Safety Committee and a Member of the Patient Safety Oversight Committee. Dr. Woody also is a member of the Stanford Medical School Dean's Research Committee and Stanford "SPARK" research initiatives program. Dr. Woody received a B.S. in Chemistry from Andrews University, Berrien Springs, Michigan, an M.D. from Loma Linda University and Pediatric Subspecialty Training at Duke University School of Medicine and Harvard University School of Medicine. He received a Ph.D. in Immunology from the University of London, England. We believe that his expertise and experience in the life sciences and venture capital industries and his educational background make him qualified to serve as a director. We believe that his expertise and experience in the life sciences and venture capital industries, and his educational background make him qualified to serve as a director.

Larry Gold, Ph.D. — Class II Director

Larry Gold, Ph.D. has served as a director of our Company since the Closing in November 2020. Dr. Gold is the Founder and Chairman Emeritus of the Board, and former Chief Executive Officer of SomaLogic, Inc. Prior to SomaLogic, he also founded and was the Chairman of NeXagen, Inc., which later became NeXstar Pharmaceuticals, Inc. In 1999, NeXstar merged with Gilead Sciences, Inc. to form a global organization committed to the discovery, development and commercialization of novel products that treat infectious diseases. During his nearly 10 years at NeXstar, Dr. Gold held numerous executive positions including Chairman of the Board, Executive Vice President of R&D, and Chief Science Officer. Before forming NeXagen, he also co-founded and served as Co-Director of Research at Synergen, Inc., a biotechnology company later acquired by Amgen, Inc. Dr. Gold became the Chairman of Lab79, a new biotech company in Boulder, Colorado in 2014. Since 1970, Dr. Gold has been a professor at the University of Colorado at Boulder. While at the University, he served as the Chairman of the Molecular, Cellular and Developmental Biology Department from 1988 to 1992. Between 1995 and 2013, Dr. Gold received the CU Distinguished Lectureship Award, the National Institutes of Health Merit Award, the Career Development Award, the Lifetime Achievement Award from the Colorado Biosciences Association, and the Chiron Prize for Biotechnology. Dr. Gold was also awarded the 8th International Steven Hoogendijk Prize by the Dutch Batavian Society of Experimental Philosophy in 2018. In addition, Dr. Gold has been a member of the American Academy of Arts and Sciences since 1993 and the National Academy of Sciences since 1995. He is a fellow of the National Academy of Inventors. Dr. Gold also serves on the board of directors for Lab79, Crnic, COLS and the PAIN Company, each private companies, Keck Graduate Institute, and the Biological Sciences Curriculum Study. Dr. Gold established the Gold Lab at the University of Colorado Boulder in 1971. Starting with basic research on bacteria and bacteriophage, the lab shifted its focus to human disease following the invention of the SELEX process in 1989. The Gold Lab today focuses on the utilization of biological and information technology to improve healthcare. Dr. Gold also began holding the GoldLab Symposia in 2010, an annual event that tackles big questions in healthcare. He is determined to change healthcare for the better through teaching, research, and debate among scientists and citizens throughout the world. Dr. Gold received a BA in Biochemistry from Yale University, a Ph.D. in 1967 in Biochemistry from the University of Connecticut, and was an NIH Postdoctoral Fellow until 1969 at Rockefeller University. We believe Dr. Gold's significant experience and successful development and commercialization of products make him qualified to serve as a director.

Donald A. McGovern, Jr., MBA — Class II Director

Donald A. McGovern, Jr., MBA has served as a director of our Company since the Closing in November 2020 and became our lead director on March 30, 2021. Mr. McGovern is a retired Vice Chairman, Global Assurance, of PricewaterhouseCoopers LLP (PwC). Through decades of leadership at PwC and board experience, Mr. McGovern brings wide-ranging operational, financial, accounting and audit and public company experience. He currently serves on the board of Cars.com (NYSE: CARS). Mr. McGovern joined the Board of Cars.com in May 2017 upon the spinout

of Cars.com from Tegna creating a new public company listed on the NYSE. Cars.com is a leading twosided digital automotive marketplace. Mr. McGovern is chair of the Audit Committee, an audit committee financial expert under SEC regulations, and a member of the Compensation Committee of Cars.com. His past public board experience has been with CRH, plc. Mr. McGovern served two three-year terms (2013 – 2019) on the board of directors of CRH. During his tenure, he was Senior Independent Director, chair of the Remuneration Committee, a member of the Nomination Committee and of the Audit Committee and an audit committee financial expert under U.S. SEC and U.K. FRC regulations. CRH is headquartered in Dublin, Ireland and listed on the London, Irish and New York Stock Exchanges. His past private company board experience includes Neoralta Pharmaceuticals (2014 – 2019) and eASIC Corp (2016 – 2018). Mr. McGovern joined the Board of Neoralta in preparation for Neoralta doing a potential initial public offering. Neoralta was a privately held, venture capital backed biopharmaceutical company dedicated to the development of therapeutics to treat neurological disorders. Mr. McGovern was chair of the Audit Committee and Compensation Committee. Mr. McGovern joined the Board of eASIC as eASIC was in the process of filing a Form S-1 registration statement for an initial public offering. eASIC, a privately held, venture capital backed, fabless semiconductor company, was acquired by Intel Corporation. Mr. McGovern was chair of the Audit Committee and member of the Nomination Committee.

He is by background a High Technology Industry Assurance partner and served as the global engagement partner, lead audit partner, or concurring partner, for numerous Silicon Valley and other U.S. public companies such as Cisco Systems, Applied Materials, Schlumberger, Ltd., Hewlett-Packard, Agilent Technologies, Nvidia, eBay, and Varian Medical. He also has served Silicon Valley pre -initial public offering companies and during his career had been involved in over 35 initial public offerings. He has extensive experience for SEC current reporting and securities filings related to initial public offerings and other SEC registration statements, due diligence, mergers and acquisitions, restructurings, divestitures and risk management.

Mr. McGovern spent 39 years at PwC including 26 years as a partner. Mr. McGovern was Vice Chairman, Global Assurance Leader and a member of the PwC Global Network Executive Team, from July 2008 until his retirement from PwC on June 30, 2013. He had been the Managing Partner of the firm's Silicon Valley Office from July 2001 to June 2007 and previously held other operating roles. In April 2001, Mr. McGovern was elected to the PwC Board of Partners and Principals of the U.S. firm as well as to PwC's Global Board. He was the first ever lead director for the U.S. Board (2001 – 2005) and was elected to serve 2 terms on each Board.

Mr. McGovern is a member of the American Institute of Certified Public Accountants and has an active CPA license to practice in California, Illinois and New York. He received a BA from Marquette University in 1972 and received an MBA from DePaul University in 1975. He also attended the Executive Program for Growing Companies of the Stanford University Graduate School of Business in 1992. We believe Mr. McGovern's significant auditing, accounting and financial experience, and his being an audit committee financial expert, as well as his Board experience make him qualified to serve as a director.

Russell T. Ray, MBA — Class I Director

Russell T. Ray, MBA has served as a director of our Company since July 9, 2021. Mr. Ray was a Senior Advisor to HLM Venture Partners, a healthcare venture capital firm, from February 2017 to December 2017 and from January 2014 to December 2015. From January 2016 to February 2017, Mr. Ray was a Managing Director and Vice Chairman of Healthcare Investment Banking at Stifel, Nicolaus & Company, Incorporated, an investment banking firm, with a focus on health care investments. From September 2003 to September 2015, Mr. Ray served as a Partner and Senior Advisor with HLM Venture Partners, a Health Care focused Venture Capital Firm that invests in health care services, health care information technology and medical technology companies. Prior to his work with HLM, he served as Managing Director and President (and was also the founder) of Chesapeake Strategic Advisors (2002 to 2003), which invested in health care services, health care information technology and medical technology companies. Mr. Ray was formerly Managing Director and Co-Head of Global Health Care at Credit Suisse First Boston Corporation (1999 to 2002) where he led a 50person team with offices in Baltimore, Chicago, London, New York and San Francisco focused on providing corporate finance and M&A advisory services to private and public companies in the biotechnology, health care services and health care information technology sectors. From 1987 to 1999, Mr. Ray was a Managing Director and Global Co-Head of Healthcare Investment Banking at Deutsche Bank and its predecessor entities, BT Alex. Brown and Alex. Brown & Sons. Mr. Ray served on the board of directors of Allergan, Inc. from 2003 to 2015. Mr. Ray also serves as Chairman of the Audit and Finance Committee of Merrimack Pharmaceuticals, Inc. (NASDAQ:MACK) (which position he has held since January 2015), which specializes in developing drugs for the treatment of cancer.

Mr. Ray is a former Captain in the United States Army and recipient of the Bronze Star Medal, two Air Medals and two Army Commendation Medals for Meritorious Service. He obtained a Bachelor's of Science degree in Engineering from the United States Military Academy at West Point, a Bachelor's of Science degree in Ecology and Evolutionary Biology from the University of Washington, a Master of Science degree from the University of Pennsylvania in both Ecology and Evolutionary Biology and received a Master of Business Administration degree in Finance from the Wharton School of Business at the University of Pennsylvania. We believe that his expertise and experience in the life sciences industry, venture capital and M&A advisory services to private and public biotechnology clients, and his educational background make him qualified to serve as a director.

Teresa M. DeLuca, M.D., MBA — Class II Director

Teresa M. DeLuca, M.D., MBA, has served as a director of our Company since July 9, 2021. Dr. DeLuca is a physician executive and psychiatrist in New York, New York, resuming her own practice, since January 2020. Dr. DeLuca previously served as a Managing Director at Columbia University's NY Life Science Venture Fund from January 2018 to December 2019. Her responsibilities as Managing Director included leading a consortium of 12 private/public institutions (Cold Spring Harbor Laboratory, Columbia, CUNY, Einstein, Hospital for Special Surgery, Memorial Sloan Kettering Cancer Center, Mount Sinai, NYU, Rockefeller University, SUNY Downstate Medical Center, Stony Brook, Weil Cornell), and providing due diligence support for potential investments, partnerships, acquisitions, commercialization, licensing, and initial public offerings. Before that she served as Assistant Clinical Professor of Psychiatry at the Icahn School of Medicine at Mount Sinai in New York City from August 2014 to December 2017 and as the Chief Medical Officer of Magellan Pharmacy Solutions at Magellan Health from December 2012 to July 2014. Prior to that, she served as SVP of Pharmacy Health Solutions at Humana, VP of Clinical Sales Solutions & National Medical Director at Walgreen Co., and VP of Personalized Medicine as well as VP of Medical Policy & Clinical Quality at Medco. Prior to taking on these executive leadership roles, Dr. DeLuca was a Senior Medical Scientist at GlaxoSmithKline. Dr. DeLuca served as a director at North Bud Farms, Inc., a pharmaceutical company from May 2018 to February 2020 (CSE:NBUD) and has served as a director of Surgery Partners, Inc. (NASDAQ:SGRY), a leading operator of surgical facilities and ancillary services, since September 2016, and also currently serves on the Audit Committee and Chair Compliance and Ethics Committee of the board of directors of Surgery Partners, Inc.

Dr. DeLuca received a Bachelor's degree from the University of Rochester/LIU. Dr. DeLuca received her M.B.A. from Drexel University and her M.D. from St. Georges University School of Medicine in Grenada, before undertaking her residency at Thomas Jefferson University Medical School. A strong advocate for good board governance, in 2016, Dr. DeLuca earned the Carnegie Mellon Cybersecurity certificate and continues to maintain good standing with the National Association of Corporate Directors (NACD) as a Board Leadership Fellow (Masters Level), and in 2020 Dr. DeLuca passed the NACD's "Directorship Certified" examination (NACD.DC). Dr. DeLuca was also named "2020 Director to Watch" in the Directors & Board Annual Report. The Board believes that Dr. DeLuca's public company experience and background as both a practicing medical doctor and former senior executive Chief Medical Officer with significant P&L business line ownership at global Fortune 50 companies, make her well qualified to serve on the Board in the determination of the Board.

Francis Knuettel II, MBA — Class I Director

Francis Knuettel II, MBA has been a director of our Company since July 2, 2021. Mr. Knuettel has over 25 years of management experience in venture and private-equity backed public companies, and has advised public and private companies on financial management and controls, mergers and acquisitions, capital markets transactions and operating and financial restructurings. From December 2020 to July 2021, Mr. Knuettel served as the President of Unrivaled Brands, Inc. (OTCQX:UNRV), a vertically integrated company focused on the cannabis sector with operations in California and Nevada, from December 2020 to March 2021, he served as the Interim Chief Executive Officer of Unrivaled and he served as Chief Executive Officer of Unrivaled from March 2021 to March 2022 and as a director from December 2020 through April 2022. Mr. Knuettel has served as a member of the board of directors, Audit Committee, Nominating and Corporate Governance Committee and Compensation Committee of Murphy Canyon Acquisition Corp. (MURF) since February 2022, and as a member of the board of directors, Audit Committee and Nominations and Corporate Governance Committee of Relativity Acquisition Corp. (NASDAQ:RACY), since February 2022, both Special Purpose Acquisition Companies. Mr. Knuettel was formerly Director of Capital and

Advisory at Viridian Capital Advisors, a position he held from June 2020 to January 2021, following the sale but prior to the close of the acquisition of One Cannabis Group, Inc. (“OCG”) by an OTCQX listed company. At OCG, Mr. Knuettel served from June 2019 to January 2021 as Chief Financial Officer of the company, a leading cannabis dispensary franchisor, with over thirty cannabis dispensaries across seven states. Prior to joining OCG, Mr. Knuettel was Chief Financial Officer at MJardin Group, Inc. (August 2018 to January 2019), a Denver-based cannabis cultivation and dispensary management company, where he led the company’s initial public offering on the Canadian Securities Exchange. Following the initial public offering, Mr. Knuettel managed the merger with GrowForce, a Toronto-based cannabis cultivator, after which he moved over to the Chief Strategy Role (January 2019 to June 2019). In his role as CSO, he managed the acquisition of several private companies before recommending and executing the consolidation of management and other operations to Toronto and the closure of the executive office in Denver. From April to August 2018, Mr. Knuettel served as Chief Financial Officer of Aqua Metals, Inc. (NASDAQ:AQMS), an advanced materials firm that developed technology in battery recycling. Prior to that, from April 2014 to April, 2018, Mr. Knuettel served as Chief Financial Officer at Marathon Patent Group, Inc. (NASDAQ:MARA), a patent enforcement and licensing company. Before that, Mr. Knuettel held numerous Chief Financial Officer and Chief Executive Officer positions at early-stage companies where he had significant experience both building and restructuring businesses. He currently serves on the board of directors and in various committee roles of two private companies, one developing an anti-viral platform and the other focused on smart intubation devices. Mr. Knuettel graduated cum laude from Tufts University with a B.A. degree in Economics and from The Wharton School at the University of Pennsylvania with an M.B.A. in Finance and Entrepreneurial Management. We believe that his expertise and experience in the life sciences and venture capital industries, roles in executive management as both Chief Executive Officer and Chief Financial Officer, and his educational background make him qualified to serve as a director.

Pamela G. Marrone, Ph.D. — Class II Director

Pamela G. Marrone, Ph.D. has been a director of our Company since July 2, 2021. Dr. Marrone is founder and was Chief Executive Officer of Marrone Bio Innovations, Inc. (NASDAQ:MBII), a natural products company producing pest management and plant health products, from April 2006 until her retirement in August 2020, and continues to serve on the board of directors of such company. In July 2021, she was appointed as senior fellow of Arizona State University’s Swette Center for Sustainable Food Systems. She also currently serves on the board of Stem Express LLC. She also served as President of Marrone Bio from 2006 through January 2015 and from September 2015 to August 2017. Prior to founding Marrone Bio, in 1995 Dr. Marrone founded AgraQuest, Inc. (acquired by Bayer), where she served as board member, president and chief executive officer until May 2004 and as board member, president or chair from such time until March 2006 and she remained on the board until March 2007. While there, she led teams that discovered and commercialized several bio-based pest management products. She served as founding president and business unit head for Entotech, Inc., a biopesticide subsidiary of Denmark-based Novo Nordisk A/S (acquired by Abbott Laboratories), from 1990 to 1995, and held various positions at the Monsanto Company from 1983 until 1990, where she led the Insect Biology Group, which was involved in pioneering projects in transgenic crops, natural products and microbial pesticides. Dr. Marrone is an author of over a dozen invited publications, an inventor on more than 400 patents and is in demand as a speaker and has served on the boards and advisory councils of numerous professional and academic organizations. In 2016, Dr. Marrone was elected to the Cornell University Board of Trustees and completed her four-year term in July 2020. In 2013, Dr. Marrone was named the Sacramento region’s “Executive of the Year” by the Sacramento Business Journal and “Cleantech Innovator of the Year” by the Sacramento Area Regional Technology Alliance and Best Manager with Strategic Vision by Agrow in 2014. In January 2019, she was awarded the “Sustie” award by the Ecological Farming Association for her decades-long leadership in sustainable agriculture. In March 2020, she was awarded the Most Admired CEO, Distinguished Career Award by the Sacramento Business Journal. In 2022, she was the first woman to receive the Kathryn C. Hach Award for Entrepreneurial Success from the American Chemical Society. Dr. Marrone earned a B.S. in Entomology from Cornell University and a Ph.D. in Entomology from North Carolina State University. We believe Dr. Marrone’s strong background with public companies and her considerable management, technical and commercialization expertise, make her well qualified to serve on the Board in the determination of the Board.

Biographical Information about our Executive Officers

The following table sets forth certain information with respect to our executive officers.

Name	Position	Age
James N. Woody, M.D., Ph.D.	Chief Executive Officer and Director	79
Ozan Pamir	Interim Chief Financial Officer and Secretary	31
Quan Anh Vu	Chief Operating Officer and Chief Business Officer	50
Jonathan Rothbard, Ph.D.	Chief Scientific Officer	70

Below is information regarding each executive officer’s biographical information, including their principal occupations or employment for at least the past five years, and the names of other public companies in which such persons hold or have held directorships during the past five years.

James N. Woody, M.D., Ph.D. — Chief Executive Officer

Information regarding Dr. Woody is set forth above under “Biographical Information about our Directors”.

Jonathan Rothbard, Ph.D. — Chief Scientific Officer

Jonathan Rothbard, Ph.D. has served as our Chief Scientific Officer since the Closing in November 2020. Dr. Rothbard has served as the Chief Executive Officer and Chief Scientific Officer of Katexco since November 2018. Previously, he helped found ImmuLogic Pharmaceutical Corp., in Palo Alto, California, where he served as Chief Scientific Officer from 1989 to 1995, founded Amylin in San Diego, California in 1989, and CellGate in Redwood City, California, where he served as Chief Scientific Officer from 1998 to 2004. Dr. Rothbard also served on the faculty of the Department of Neurology at Stanford University Medical School and on the faculties of the Department of Chemistry and the Department of Rheumatology. He also previously served as the head of the Molecular Immunology Laboratory at the Imperial Cancer Research Fund in London. Dr. Rothbard received his BA from Hamilton College in 1973 and his Ph.D. from Columbia University in 1977 and completed post-doctoral fellowships at The Rockefeller University and Stanford University Medical School.

Ozan Pamir, CFA — Interim Chief Financial Officer and Secretary

Ozan Pamir has served as our interim Chief Financial Officer since November 2020. Mr. Pamir has also served as the Chief Financial Officer and as a member of the Board of 180, our wholly-owned subsidiary following the Closing, since October 2018. Mr. Pamir has also served as the Chief Financial Officer and as a member of the board of directors of Unify Pharmaceuticals between August 2019 and July 2021, and as the Chief Financial Officer of Enosi Life Sciences between May 2020 and April 2021, both of which are pre-clinical companies focused on autoimmune diseases. Previously, Mr. Pamir served in various positions with Echelon Wealth Partners, a leading Canadian investment bank, from June 2014 to October 2018, including Investment Banking Analyst (June 2014 – June 2015), Senior Associate, Investment Banking (June 2015 – September 2017) and Vice President of Investment Banking (September 2017 – October 2018), as well as Investment Banking Analyst of OCI Groups from October 2013 to June 2014. Mr. Pamir holds an Economics and Finance degree from McGill University and is a CFA Charterholder.

Quan Anh Vu — Chief Operating Officer and Chief Business Officer

Quan Anh Vu has served as our Chief Operating Officer and Chief Business Officer since October 2021. Mr. Vu has extensive experience in executive management and leadership roles for life sciences companies. Mr. Vu served as Managing Director and Co-Head of Healthcare IT at Solganick & Co., a technology investment banking firm, from September 2019 through October 2021. From April 2021 through October 2021, Mr. Vu also served as the Chief Executive Officer of Baleena Bioscience, Inc., a biotechnology/medical device company. Finally, since July 2020, Mr. Vu has served as a consultant with LS Associates, a life science services firm. Before working with LS Associates, from September 2016 to August 2019, Mr. Vu served as Vice President and Head of Strategy and Corporate/Business Development at Opiant Pharmaceuticals, Inc., a specialty pharmaceutical company. Prior to that, Mr. Vu held various consulting, director and manager roles with a number of companies in the pharmaceutical and biotechnology industries. Mr. Vu received his Bachelor’s degree in Economics from UCLA.

Family Relationships

There are no family relationships among executive officers and directors.

Classified Board

The Board is divided into two classes. At each annual general meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the second annual meeting following the election. The directors are divided among the two classes as follows:

- the Class I directors are Lawrence Steinman, James N. Woody, Russell T. Ray and Francis Knuettel II, and their terms expire at the annual meeting of stockholders to be held in 2023; and
- the Class II directors are Larry Gold, Sir Marc Feldmann, Donald A. McGovern, Jr., Teresa M. DeLuca and Pamela G. Marrone, and their terms expire at the annual meeting of stockholders on June 14, 2022 (subject to their re-appointment pursuant to Proposal 1 herein).

Any additional directorships resulting from an increase in the number of directors will be distributed among the two classes so that, as nearly as possible, each class will consist of one-half of the directors. The division of the Board into two classes with staggered two-year terms may delay or prevent a change of our management or a change in control.

Arrangements between Officers and Directors

There is no arrangement or understanding between our directors and executive officers and any other person pursuant to which any director or officer was or is to be selected as a director or officer. There are also no arrangements, agreements or understandings to our knowledge between non-management stockholders that may directly or indirectly participate in or influence the management of our affairs.

Other Directorships

None of the directors of our Company are also directors of issuers with a class of securities registered under Section 12 of the Exchange Act (or which otherwise are required to file periodic reports under the Exchange Act), other than:

- Mr. McGovern (who serves on the board of directors of Cars.com and as the Chairman of the Audit Committee and Member of the Compensation Committee of Cars.com),
- Prof. Steinman (who serves on the board of directors of BioAtla, Inc. (NASDAQ:BCAB), on the Compensation Committee and Nominating and Corporate Governance Committee of BioAtla and on the board of directors of Pasithea Therapeutics Corp. (NASDAQ:KTTA), and also on the Compensation Committee and Nominating and Corporate Governance Committee of Pasithea),
- Mr. Ray (who serves on the board of directors of Merrimack Pharmaceuticals, Inc. (NASDAQ:MACK), and also as Chairman of the Audit and Finance Committee of Merrimack),
- Dr. DeLuca (who serves on the board of directors of Surgery Partners, Inc. (NASDAQ:SGRY) and on the Audit Committee and Chair Compliance and Ethics Committee of the board of directors of Surgery Partners, Inc.),
- Dr. Marrone (who serves on the board of directors of Marrone Bio Innovations, Inc. (NASDAQ:MBII)), and
- Mr. Knuettel (who serves as a member of the board of directors, Audit Committee, Nominating and Corporate Governance Committee and Compensation Committee of Murphy Canyon Acquisition Corp. (MURF), and as a member of the board of directors, Audit Committee and Nominations and Corporate Governance Committee of Relativity Acquisition Corp. (NASDAQ:RACY)).

Involvement in Certain Legal Proceedings

To the best of our knowledge, during the past ten years, none of our directors or executive officers were involved in any of the following: (1) any bankruptcy petition filed by or against any business of which such person was a general partner or executive officer either at the time of the bankruptcy or within two years prior to that time; (2) any conviction in a criminal proceeding or being a named subject to a pending criminal proceeding (excluding traffic violations and other minor offenses); (3) being subject to any order, judgment, or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction, permanently or temporarily enjoining, barring, suspending or otherwise limiting his involvement in any type of business, securities or banking activities; (4) being found by a court of competent jurisdiction (in a civil action), the SEC or the Commodities Futures Trading Commission to have violated a federal or state securities or commodities law; (5) being the subject of, or a party to, any Federal or State judicial or administrative order, judgment, decree, or finding, not subsequently reversed, suspended or vacated, relating to an alleged violation of (i) any Federal or State securities or commodities law or regulation; (ii) any law or regulation respecting financial institutions or insurance companies including, but not limited to, a temporary or permanent injunction, order of disgorgement or restitution, civil money penalty or temporary or permanent cease-and-desist order, or removal or prohibition order; or (iii) any law or regulation prohibiting mail or wire fraud or fraud in connection with any business entity; or (6) being the subject of, or a party to, any sanction or order, not subsequently reversed, suspended or vacated, of any self-regulatory organization (as defined in Section 3(a)(26) of the Exchange Act), any registered entity (as defined in Section 1(a)(29) of the Commodity Exchange Act), or any equivalent exchange, association, entity or organization that has disciplinary authority over its members or persons associated with a member.

Board Committee Membership

Our Board has four standing committees: an audit committee (the “Audit Committee”), a compensation committee (the “Compensation Committee”), a nominating and corporate governance committee (the “Nominating and Corporate Governance Committee”), and a risk, safety and regulatory committee (the “Risk, Safety and Regulatory Committee”). All four committees are composed solely of independent directors. We filed a copy of our Audit Committee charter and our Compensation Committee charter as exhibits to the registration statement that we filed in connection with our IPO. We filed a copy of our Nominating and Corporate Governance Committee charter as an exhibit to our Current Report on Form 8-K that we filed with the SEC on November 12, 2020. We filed a copy of our Risk, Safety and Regulatory Committee charter as an exhibit to our Annual Report on Form 10-K for the fiscal year ended December 31, 2020 that we filed with the SEC on July 9, 2021. You can review the charters for our standing committees by accessing our public filings at the SEC’s web site at www.sec.gov.

The current members of the committees of our Board are as follows:

Director Name	Independent	Audit Committee	Compensation Committee	Nominating and Corporate Governance Committee	Risk, Safety and Regulatory Committee
Lawrence Steinman, M.D. ⁽¹⁾					
Sir Marc Feldmann, Ph.D. ⁽¹⁾					
James N. Woody, M.D., Ph.D.					
Larry Gold, Ph.D.	X	M		C	
Donald A. McGovern, Jr., MBA ⁽²⁾	X	C	M		M
Russell T. Ray, MBA	X	M	M	M	
Teresa DeLuca, M.D., MBA	X		C	M	
Francis Knuettel II, MBA	X	M			M
Pamela G. Marrone, Ph.D.	X		M		C

- (1) Executive Co-Chairman of the Board.
- (2) Lead independent director.
- C Chairperson of the Committee.
- M Member of the Committee.

Each of these committees has the duties described below and operates under a charter that has been approved by our Board.

Audit Committee

NASDAQ listing standards and applicable SEC rules require that the Audit Committee of a listed company be comprised solely of independent directors. We have established an Audit Committee of the Board, which currently consists of Donald A. McGovern, Jr., MBA (Chair), Larry Gold, Ph.D., Russell T. Ray, MBA and Francis Knuettel II, MBA. Each member of the Audit Committee meets the independent director standard under Nasdaq's listing standards and under Rule 10A-3(b)(1) of the Exchange Act. Each member of the Audit Committee is financially literate and our Board has determined that Mr. McGovern qualifies as an "audit committee financial expert" as defined in applicable SEC rules.

Responsibilities of the Audit Committee include:

- the appointment, compensation, retention, replacement, and oversight of the work of the independent registered public accounting firm and any other independent registered public accounting firm engaged by us;
- pre-approving all audit and non-audit services to be provided by the independent registered public accounting firm or any other registered public accounting firm engaged by us, and establishing pre-approval policies and procedures;
- reviewing and discussing with the independent registered public accounting firm all relationships the firm has with us in order to evaluate their continued independence;
- setting clear hiring policies for employees or former employees of the independent registered public accounting firm;
- setting clear policies for audit partner rotation in compliance with applicable laws and regulations;
- obtaining and reviewing a report, at least annually, from the independent registered public accounting firm describing (i) the independent auditor's internal quality-control procedures and (ii) any material issues raised by the most recent internal quality-control review, or peer review, of the audit firm, or by any inquiry or investigation by governmental or professional authorities, within the preceding five years respecting one or more independent audits carried out by the firm and any steps taken to deal with such issues;
- reviewing and approving any related party transaction required to be disclosed pursuant to Item 404 of Regulation S-K promulgated by the SEC prior to us entering into such transaction; and
- reviewing with management, the independent registered public accounting firm, and our legal advisors, as appropriate, any legal, regulatory or compliance matters, including any correspondence with regulators or government agencies and any employee complaints or published reports that raise material issues regarding our consolidated financial statements or accounting policies and any significant changes in accounting standards or rules promulgated by the Financial Accounting Standards Board, the SEC or other regulatory authorities.

Compensation Committee

We have established a Compensation Committee of the Board. The members of our Compensation Committee are Teresa DeLuca MD, Ph.D. (Chair), Donald A. McGovern, Jr., MBA, Russell T. Ray, MBA and Pamela G. Marrone, Ph.D. We have adopted a Compensation Committee charter, which details the principal functions of the Compensation Committee, including:

- reviewing and approving on an annual basis the corporate goals and objectives relevant to our Chief Executive Officer's compensation, evaluating our Chief Executive Officer's performance in light of such goals and objectives and determining and approving the remuneration (if any) of our Chief Executive Officer based on such evaluation in executive session at which the Chief Executive Officer is not present;
- reviewing and approving the compensation of all of our other executive officers;
- reviewing our executive compensation policies and plans;

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- implementing and administering our incentive compensation equity-based remuneration plans;
- assisting management in complying with our proxy statement and annual report disclosure requirements;
- approving all special perquisites, special cash payments and other special compensation and benefit arrangements for our executive officers and employees;
- producing a report on executive compensation to be included in our annual proxy statement; and
- reviewing, evaluating and recommending changes, if appropriate, to the remuneration for directors.

The Compensation Committee charter also provides that the Compensation Committee may, in its sole discretion, retain or obtain the advice of a compensation consultant, legal counsel or other adviser and will be directly responsible for the appointment, compensation and oversight of the work of any such adviser. However, before engaging or receiving advice from a compensation consultant, external legal counsel or any other adviser, the Compensation Committee will consider the independence of each such adviser, including the factors required by Nasdaq and the SEC.

Compensation Committee Interlocks and Insider Participation

As described above, the current members of the Compensation Committee are independent members of our Board. No member of the Compensation Committee is an employee or a former employee of our Company. During fiscal 2021, none of our executive officers served on the Compensation Committee (or its equivalent) or Board of another entity whose executive officer served on our Compensation Committee. Accordingly, the Compensation Committee members have no interlocking relationships required to be disclosed under SEC rules and regulations.

Nominating and Corporate Governance Committee

We have established a Nominating and Corporate Governance Committee of the Board. The members of our Nominating and Governance Committee are Larry Gold, Ph.D. (Chair), Russell T. Ray, MBA and Teresa DeLuca MD, MBA. Our Board has determined that each member is independent under applicable Nasdaq listing standards. We have adopted a Compensation Committee charter, which details the principal functions of our Nominating and Corporate Governance Committee. Specific responsibilities of the Nominating and Corporate Governance Committee include:

- making recommendations to our Board regarding candidates for directorships;
- making recommendations to our Board regarding the size and composition of our Board;
- overseeing our corporate governance policies and reporting; and
- making recommendations to our Board concerning governance matters.

Risk, Safety and Regulatory Committee

In May 2021, the Board adopted a charter of a Risk, Safety and Regulatory Committee, which committee is tasked with, among other things, overseeing our risk management policies and procedures, reviewing our principal risk and compliance policies and our approach to risk management, dealing with risk identification and risk assessment for the principal operational, business, compliance and ethics risks facing our company, whether internal or external in nature including, but not limited to, the risks and incident responses associated with: information security; business continuity and disaster recovery; vendor management; operations risks; supply chain risks; employment and workplace conduct practices; safety and environmental matters; and legal risks, overseeing our compliance programs, reviewing our compliance with relevant laws, regulations, and corporate policies (including our Code of Ethics), overseeing significant complaints and other matters raised through our compliance reporting mechanisms, including the review and investigation of such matters as necessary, reviewing significant government inquiries or investigations and other significant legal actions, reviewing information about current and emerging legal and regulatory compliance risks and enforcement trends that may affect our business operations, performance or strategy, meeting, and reviewing and discussing with management the implementation and enforcement of policies, standards, procedures and risk management programs, and compliance with applicable laws and regulations, related to the manufacture and supply of products consistent with applicable high-quality and medical product safety standards. The members of our Risk, Safety and Regulatory Committee are Pamela G. Marrone, Ph.D. (Chair), Donald A. McGovern, Jr., MBA, and Francis Knuettel II, MBA. Our Board has determined that each member is independent under applicable Nasdaq listing standards.

Code of Ethics

We have adopted a Code of Ethics applicable to our directors, officers and employees, which we filed as an exhibit to the registration statement that we filed in connection with our IPO. You can review our Code of Ethics by accessing our public filings at the SEC's web site at www.sec.gov. In addition, a copy of our Code of Ethics will be provided without charge upon request from us. We intend to disclose any amendments to or waivers of certain provisions of our Code of Ethics in a Current Report on Form 8-K. There have been no waivers granted with respect to our Code of Ethics to any such officers or employees to date.

Director Independence

Our Board has determined that each of Donald A. McGovern, Jr., MBA, Larry Gold, Ph.D., Russell T. Ray, MBA, Teresa M. DeLuca, M.D., MBA, Pamela G. Marrone, Ph.D. and Francis Knuettel II, MBA is an independent director as defined under the Nasdaq rules governing members of boards of directors and as defined under Rule 10A-3 of the Exchange Act.

Policy on Equity Ownership

We do not have a policy on equity ownership at this time. However, as illustrated in the "Beneficial Ownership of Securities" table on page 123, all Named Executive Officers and directors are beneficial owners of stock of our Company.

Compensation Recovery and Clawback Policies

Other than legal requirements under the Sarbanes-Oxley Act, we currently do not have any policies in place in the event of misconduct that results in a financial restatement that would have reduced a previously paid incentive amount, we can recoup those improper payments from our Chief Executive Officer and Chief Financial Officer. Under the Sarbanes-Oxley Act, our Chief Executive Officer and Chief Financial Officer may be subject to clawbacks in the event of a restatement. Thus, the Board has not deemed any additional recoupment policies to be necessary. We will continue to monitor regulations and trends in this area.

Insider Trading/Anti-Hedging Policies

All employees, officers and directors of, and consultants and contractors to, us or any of our subsidiaries are subject to our Insider Trading Policy. The policy prohibits the unauthorized disclosure of any nonpublic information acquired in the workplace, the misuse of material nonpublic information in securities trading. The policy also includes specific anti-hedging provisions.

To ensure compliance with the policy and applicable federal and state securities laws, all individuals subject to the policy must refrain from the purchase or sale of our securities except in designated trading windows or pursuant to preapproved 10b5-1 trading plans. Even during a trading window period, certain identified insiders, which include the named executive officers and directors, must comply with our designated pre-clearance policy prior to trading in our securities. The anti-hedging provisions prohibit all employees, officers and directors from engaging in "short sales" of our securities.

EXECUTIVE AND DIRECTOR COMPENSATION

Compensation of Directors and Officers by KBL Merger Corp. IV prior to the Closing

None of the executive officers or directors of KBL, including Marlene Krauss, M.D., the Chief Executive Officer of KBL until the Closing, were paid cash compensation in connection with services rendered to our Company for the year ended December 31, 2020. Commencing on June 2, 2017 through the Closing, we paid the Sponsor a total of \$10,000 per month for administrative support and associated costs. Our Sponsor, executive officers and directors, or any of their respective affiliates, were reimbursed for any out-of-pocket expenses incurred in connection with activities on our behalf, such as identifying potential target businesses and performing due diligence on suitable business combinations. Our independent directors prior to the Closing reviewed on a quarterly basis all payments that were made to our Sponsor, officers, directors or our or their affiliates. All of the directors and executive officers of KBL immediately prior to the Closing resigned from their positions upon the Closing.

In addition to the foregoing, on June 12, 2020, KBL entered into a resignation agreement with Dr. Krauss, whereby, among other things, upon the closing of the Business Combination, the employment of Dr. Krauss with the combined company would be terminated, and KBL became obligated to pay a cash severance payment of \$500,000 to Dr. Krauss (of which \$200,000 was paid during September 2020). As of December 31, 2020, there are no balances outstanding due to Dr. Krauss under this resignation agreement.

Compensation of Officers by 180 Life Sciences Corp. following the Closing

General

Upon the Closing, James N. Woody, M.D., Ph.D., the Chief Executive Officer of 180, was appointed to serve as the Chief Executive Officer of our Company, and Jonathan Rothbard, Ph.D., the Chief Executive Officer and Chief Scientific Officer of Katexco, was appointed to serve as the Chief Scientific Officer of our Company. Also following the Closing, Ozan Pamir, the Chief Financial Officer of 180, continued to serve in that position for 180, and on November 27, 2020, he was appointed to serve as the Interim Chief Financial Officer of our Company. Effective on October 29, 2021, the Board appointed Mr. Quan Anh Vu as Chief Operating Officer/Chief Business Officer (“COO/CBO”) of our Company.

A description of the employment or services agreements with each of the foregoing persons is set forth below.

Description of Employment Agreements

Each of the salaries of the executives described below and certain of the compensation payable to the consultants described below, are subject to the increases in salary and the temporary salary accruals discussed below under “Salary Increases and Temporary Salary and Compensation Accruals”.

James N. Woody 180 Employment Agreement

James N. Woody, M.D., Ph.D. and 180 entered into an employment agreement on July 1, 2020 (which agreement was amended on September 18, 2020), effective as of July 1, 2020, whereby Dr. Woody served as the Chief Executive Officer of 180 and began serving as our Chief Executive Officer following the Closing. The initial term of the employment agreement started on July 1, 2020, was for a period of one (1) year, and was subject to automatic renewal for consecutive one (1) year terms unless either party provided 60 days’ notice. Dr. Woody’s annual base salary was initially \$250,000 per year from July 1, 2020 to September 1, 2020, and increased to \$360,000 per year on September 1, 2020. The agreement provided that Dr. Woody’s salary was to be renegotiated with the completion of the next qualified financing of over \$20 million. Dr. Woody is eligible to participate in any stock option plans and receive other equity awards, as determined from time to time.

James N. Woody Amended and Restated Employment Agreement

On February 25, 2021, we entered into an Amended and Restated Employment Agreement with James N. Woody (the “A&R Agreement”), dated February 24, 2021, and effective November 6, 2020, which replaced and superseded the July 2020 agreement with 180 as discussed above. Pursuant to the A&R Agreement, Dr. Woody agreed to serve as the Chief Executive Officer of our Company. The A&R Agreement has a term of three years from its effective date

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(through November 6, 2023) and is automatically renewable thereafter for additional one-year periods, unless either party provides the other at least 90 days written notice of their intent to not renew the agreement. Dr. Woody's annual base salary under the agreement was initially increased to \$450,000 per year, subject to automatic 5% yearly increases. For the 2021 year, Mr. Woody's salary was \$450,000, and for 2022, Mr. Woody's salary will be \$463,500.

Dr. Woody is also eligible to receive an annual bonus, with a target bonus equal to 45% of his then-current base salary, based upon our Company's achievement of performance and management objectives as set and approved by the Board and/or Compensation Committee in consultation with Dr. Woody. At Dr. Woody's option, the annual bonus can be paid in cash or the equivalent value of our common stock or a combination therefore. The Board, as recommended by the Compensation Committee or separately, may also award Dr. Woody bonuses from time to time (in stock, options, cash, or other forms of consideration) in its discretion.

As additional consideration for Dr. Woody agreeing to enter into the agreement, we awarded him options to purchase 1,400,000 shares of our common stock, which have a term of 10 years, and an exercise price of \$4.43 per share (the closing sales price on the date the Board approved the grant (February 26, 2021)). The options are subject to our 2020 Omnibus Incentive Plan and vest at the rate of (a) 1/5th of such options on the grant date; and (b) 4/5th of such options vesting ratably on a monthly basis over the following 36 months on the last day of each calendar month; provided, however, that such options vest immediately upon Dr. Woody's death or disability, termination without cause or a termination by Dr. Woody for good reason (as defined in the agreement), a change in control of the Company or upon a sale of the Company. Under the employment agreement, Dr. Woody is also eligible to participate in any stock option plans and receive other equity awards, as determined by the Board from time to time.

The agreement can be terminated any time by us for cause (subject to the cure provisions of the agreement), or without cause (with 60 days prior written notice to Dr. Woody), by Dr. Woody for good reason (as described in the agreement, and subject to the cure provisions of the agreement), or by Dr. Woody without good reason. The agreement also expires automatically at the end of the initial term or any renewal term if either party provides notice of non-renewal as discussed above.

In the event the A&R Agreement is terminated without cause by us, or by Dr. Woody for good reason, we agreed to pay him the lesser of 18 months of salary or the remaining term of the agreement, the payment of any accrued bonus from the prior year, his pro rata portion of any current year's bonus and health insurance premiums for the same period that he is to receive severance payments (as discussed above).

The A&R Agreement contains standard and customary invention assignment, indemnification, confidentiality and non-solicitation provisions, which remain in effect for a period of 24 months following the termination of his agreement.

Dr. Rothbard's Employment Agreement

Our indirect wholly-owned subsidiary, Katexco, entered into an employment agreement with Dr. Rothbard on November 1, 2018. The agreement provides for an indefinite term that continues until termination. The initial annual base salary set forth in the agreement is \$300,000, with annual increases as determined by the Board. Any bonuses, including stock options, are in the sole discretion of Katexco, depending on financial circumstances and the performance of the services under the agreement.

The agreement provides that Dr. Rothbard is eligible to participate in the employee benefit plans that are established from time to time, including group health insurance, accidental death and dismemberment, group life insurance, short-term disability insurance, long-term disability insurance, drug coverage and dental coverage.

The agreement also provides Dr. Rothbard with severance benefits if his employment is terminated without "just cause," subject to his compliance with the restrictive covenants described below and his timely execution and non-revocation of a general release of claims.

In the event Dr. Rothbard's agreement is terminated without "just cause" (as defined in such agreement), Katexco agreed to pay a period of two weeks plus two weeks for each completed year of service, up to a cumulative maximum of 16 weeks of compensation. If severance is paid in lieu of any amount of the required notice period, the amount of the severance pay will be equal to the then-current base salary pro-rated for the covered period. Upon any termination of employment, including a termination for "just cause," Dr. Rothbard is entitled to the base salary, bonuses and stock options actually earned up to the date of termination.

Pursuant to his agreement, Dr. Rothbard is subject to a six-month post-employment non-competition, non-solicitation and non-hire covenant.

As noted above, upon the Closing, Dr. Rothbard was appointed to serve as the Chief Scientific Officer of our company.

On August 21, 2019, 180 entered into an Employment Agreement with Dr. Rothbard which replaced his prior agreement, which was not effective until the Closing Date, but became effective on such date. The Employment Agreement has a term of three years from the Closing Date (i.e., until November 6, 2023), automatically extending for additional one-year terms thereafter unless either party terminates the agreement with at least 90 days prior written notice before the next renewal date.

The Employment Agreement provides for Dr. Rothbard to be paid a salary of \$375,000 per year, with automatic increases in salary, on the first anniversary of the effective date, and each anniversary thereafter, of 10%. For the 2021 year, Dr. Rothbard's salary was \$375,000, and for 2022, Dr. Rothbard's salary will be \$386,250.

The Employment Agreement provides for Dr. Rothbard to receive an annual bonus subject to meeting certain objectives set by the Board, with a targeted bonus amount of 50% of his then salary, payable on or before February 15th of each year.

The Employment Agreement also provides for Dr. Rothbard to earn equity compensation in the discretion of the Board. Dr. Rothbard may also be issued bonuses, from time to time, in the discretion of the Board, which may be payable in cash, stock or options.

In the event Dr. Rothbard's employment is terminated by us without cause, by Dr. Rothbard for good reason (as discussed in the employment agreement), or the agreement is not renewed by us, he is required to be paid 36 months of severance pay (if such termination occurs during the first year of the term); 24 months of severance pay (if such termination occurs during the second year of the term); and 12 months of severance pay (if such termination occurs after the second year of the term), along with any accrued bonus amount and a pro rata annual bonus based on the targeted bonus, as well as the payment of health insurance premiums for the same period over which he is required to be paid severance pay.

Ozan Pamir Katexco Employment Agreement

Our indirect wholly-owned subsidiary Katexco entered into an employment agreement with Mr. Pamir on October 22, 2018. The agreement provides for an indefinite term that continues until termination. The initial annual base salary set forth in the agreement was CAD \$120,000, with annual increases as determined by the Board. The agreement also provided Mr. Pamir with a CAD \$20,000 signing bonus. Any bonuses, including stock options, are in the sole discretion of Katexco, depending on financial circumstances and the performance of the services under the agreement. In 2019, the compensation was increased to \$120,000 per annum in US dollars.

On February 1, 2020, there was an amendment to Mr. Pamir's consulting agreement with Katexco, whereby the contract was transferred from Katexco to Katexco Pharmaceuticals Corp.–US.

Ozan Pamir Company Employment Agreement

On February 25, 2021, we entered into an Employment Agreement dated February 24, 2021, and effective November 6, 2020, which agreement was amended and corrected on March 1, 2021, to be effective as of the effective date of the original agreement (which amendment and correction is retroactively updated in the discussion of the agreement), with Ozan Pamir, our Interim Chief Financial Officer, which replaced and superseded Mr. Pamir's agreement with Katexco, as discussed above. Pursuant to the agreement, Mr. Pamir agreed to serve as our Interim Chief Financial Officer; and we agreed to pay Mr. Pamir \$300,000 per year. Such salary is to be increased to a mutually determined amount upon the closing of a new financing, and shall also be increased on a yearly basis.

Under the agreement, Mr. Pamir is eligible to receive an annual bonus, in a targeted amount of 30% of his then salary, based upon our Company's achievement of performance and management objectives as set and approved by the Chief Executive Officer, in consultation with Mr. Pamir. The bonus amount is subject to adjustment. The Board, as recommended by the Compensation Committee (and/or the Compensation Committee) or separately, may also award Mr. Pamir bonuses from time to time (in stock, options, cash, or other forms of consideration) in its discretion.

As additional consideration for Mr. Pamir agreeing to enter into the agreement, we awarded him options to purchase 180,000 shares of our common stock, which have a term of 10 years, and an exercise price of \$4.43 per share (the closing sales price on the date the Board approved the grant (February 26, 2021)). The options are subject to our 2020 Omnibus Incentive Plan and vest at the rate of (a) 1/5th of such options upon the grant date; and (b) 4/5th of such options vesting ratably on a monthly basis over the following 36 months on the last day of each calendar month; provided, however, that such options vest immediately upon Mr. Pamir's death or disability, termination without cause or a termination by Mr. Pamir for good reason (as defined in the agreement), a change in control of the Company or upon a sale of the Company. Under the employment agreement, Mr. Pamir is also eligible to participate in any stock option plans and receive other equity awards, as determined by the Board from time to time.

The agreement can be terminated at any time by us with or without cause with 60 days prior written notice and may be terminated by Mr. Pamir at any time with 60 days prior written notice. The agreement may also be terminated by us with six days' notice in the event the agreement is terminated for cause under certain circumstances. Upon the termination of Mr. Pamir's agreement by us without cause or by Mr. Pamir for good reason, we agreed to pay him three months of severance pay.

The agreement contains standard and customary invention assignment, indemnification, confidentiality and non-solicitation provisions, which remain in effect for a period of 24 months following the termination of his agreement.

On May 27, 2021, we entered into a Second Amendment to Employment Agreement with Ozan Pamir (the "Second Amendment"). The Second Amendment amended the terms of Mr. Pamir's employment solely to provide that all compensation payable to Mr. Pamir under such agreement would be paid directly by us.

On September 14, 2021, the Board authorized a discretionary bonus of \$30,000 to Mr. Pamir in consideration for services rendered.

Quan Anh Vu Executive Employment Agreement

On October 27, 2021, and effective on November 1, 2021, we entered into an Employment Agreement with Quan Anh Vu.

Pursuant to the employment agreement, Mr. Vu agreed to serve as COO/CBO. In his role as COO/CBO, Mr. Vu's responsibilities include, but are not limited to: (a) working with the Chief Executive Officer for creating, planning and integrating our strategic direction; (b) engaging and retaining our advisors and other key employees and consultants; (c) reviewing our budgets; (d) crafting and reviewing our annual strategic plan; (e) reviewing all mergers and acquisitions and asset purchases and sales, including disposition and licensing of all intellectual property and patents; (f) crafting, executing and concluding, when possible, all in-licensing, out-licensing, sub-licensing and partnering endeavors; and (g) fulfilling such other duties and responsibilities consistent with the appointed position and title (collectively, the "COO/CBO Services").

In consideration for performing the COO/CBO Services, which require that Mr. Vu allocate his full business efforts to the Company, we agreed to pay Mr. Vu a starting salary of \$390,000 per year, subject to annual increases of up to 5% (on each November 1st, but effective as of the following January 1st, including a 3% increase to \$401,700 for 2022, as discussed below under "Salary Increases and Temporary Salary and Compensation Accruals"). Upon completion of a financing of \$50 million or more, the annual salary will be increased by \$10,000. In addition to the base salary, Mr. Vu will receive an annual bonus, with a target bonus opportunity of 50% of the then-current base salary, based on achievement of performance and management objectives established by the Chief Executive Officer and the Compensation Committee, in consultation with Mr. Vu, payable on or before March 31st of the year following the year in which the bonus is earned. Mr. Vu may elect the Annual Bonus to be paid in cash or the equivalent value in our common stock, or a combination of the two. For calendar year 2021, the Annual Bonus, if any, will be pro-rated based on the partial year of employment. The Board, as recommended by the Compensation Committee, or separately, may also award Mr. Vu bonuses from time to time (in stock, options, cash, or other forms of consideration) in its discretion.

The Board agreed to grant Mr. Vu options to purchase 275,000 shares of common stock, which have a 10 year term and an exercise price of \$3.95 per share, which options were granted under and pursuant to our 2020 Omnibus Incentive Plan. The options will vest in 48 equal monthly installments, provided such options will vest immediately

upon Mr. Vu's death or disability, termination without cause or a termination by Mr. Vu for good reason, or a change of control or sale of the Company. The Employment Agreement also allows for future yearly equity awards in the discretion of the Compensation Committee.

The Employment Agreement has an initial term of three years and renews thereafter for additional one year terms, until terminated as provided in the agreement. We may also terminate the agreement for "cause", which means any of the following: (i) Mr. Vu engaging in any acts of fraud, theft, or embezzlement involving the Company; (ii) Mr. Vu's conviction, including any plea of guilty or nolo contendere, of any felony crime which is relevant to the Executive's position with the Company; and (iii) a material violation of this Agreement by Mr. Vu which is materially damaging our reputation or business, provided that prior to terminating Mr. Vu for Cause, the Board must first provide notice and an opportunity to remedy the condition, if subject to remedy. We may also terminate Mr. Vu's employment, if Mr. Vu is unable to perform the essential functions of his position for 120 days in any 12 month period due to any disability. The Employment Agreement can also be terminated by us, upon 30 days' prior notice, without cause.

Mr. Vu may terminate the Employment Agreement for "Good Reason", upon 30 days' notice and right for us to cure, which means the occurrence of any of the following, without Mr. Vu's consent: (i) a material diminution in the nature or scope of Mr. Vu's title, authority or responsibilities, causing them to be inconsistent with the position of COO/CBO of a comparable public company; (ii) a material adverse change in COO/CBO Services to be provided, causing them to be inconsistent with the position of a similar nature of a comparable public company; (iii) a material reduction in base salary or target bonus opportunity; or (iv) our breach of a material provision of the Employment Agreement. The Employment Agreement also terminates at the end of the term or any renewal term, if not renewed, and upon Mr. Vu's death.

If we terminate Mr. Vu's employment without cause, Mr. Vu resigns for Good Reason, or the term expires without renewal (due to a termination by us), then we are required to pay Mr. Vu 12 months of base salary (prorated if termination occurs during the first year of the agreement), any accrued annual bonus, the pro rata amount of the next year's bonus, and monthly health insurance payments for the period that Mr. Vu is eligible to receive severance payments. Mr. Vu must execute a general release to become eligible for the termination payments.

The Employment Agreement contains standard and customary invention assignment, indemnification, confidentiality and non-solicitation provisions, which remain in effect for a period of 24 months following the termination of the agreement.

Description of Material Consulting Agreements

Service Agreement with Prof. Sir Marc Feldmann

See "Service Agreement with Prof. Sir Marc Feldmann" under "Material Agreements — Consulting Agreements", in the section entitled "Business", above.

Prof. Lawrence Steinman Consultancy Agreement and Consulting Agreement

See "Consultancy Agreement with Prof. Lawrence Steinman" and "Lawrence Steinman, M.D. Consulting Agreement" under "Material Agreements — Consulting Agreements", in the section entitled "Business", above.

Prof. Jagdeep Nanchahal Consulting Agreement

See "Prof. Jagdeep Nanchahal Consulting Agreement" under "Material Agreements — Consulting Agreements", in the section entitled "Business", above.

Salary Increases and Temporary Salary and Compensation Accruals

Effective on April 27, 2022, we (directly or through an indirectly wholly-owned subsidiary of the Company) entered into (a) a First Amendment to Amended and Restated Employment Agreement with Dr. Woody (the "First Woody Amendment"); (b) a First Amendment to Employment Agreement with Mr. Vu (the "First Vu Amendment"); (c) a First Amendment to Employment Agreement with Dr. Rothbard ("First Rothbard Amendment"); (d) a First Amendment to Employment Agreement with Prof. Sir Feldmann (the "First Feldmann Amendment"); (e) a First Amendment to Consulting

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Agreement with Prof. Steinman (the “First Steinman Amendment”); and (f) a Second Amendment to Consulting Agreement with Prof. Nanchahal (the “Second Nanchahal Amendment”), which each amended the agreements currently in place with such individuals as discussed above.

Pursuant to the First Woody Amendment, First Vu Amendment and First Rothbard Amendment, each of Dr. Woody, Mr. Vu and Dr. Rothbard, agreed that effective January 1, 2022, their base salaries of \$450,000, \$390,000 and \$375,000, respectively (their “Base Salaries”) (as provided for in their employment agreements) were amended to increase such amounts by 3% (the “Increase in Salary”) and effective March 1, 2022, the their base salaries were reduced by 20-25% each (\$92,700, \$80,340 and \$96,563, respectively) and that such reduced amounts (the “Accrued Amounts”) shall be accrued until such time as the Board determines that we have sufficient cash on hand to pay such Accrued Amounts, which we expect will not be until it has raised a minimum of \$15,000,000 (the “Funding Determination Date”); and that \$370,800, \$321,360, and \$289,688 of such base salaries, shall be payable per our payroll practices in cash by us to each of Dr. Woody, Mr. Vu and Dr. Rothbard, respectively, starting effective March 1, 2022 until the Funding Determination Date, and that on the Funding Determination Date, their salaries shall increase to the new base salary taking into account the Increase in Salary (with no accrual) (\$463,500, \$401,700 and \$386,250, respectively) and the Accrued Amounts shall be paid by us, provided that in addition, at the discretion of the Board of the Directors, the base salaries on the Funding Determination Date of each executive may be further increased by 2%. Additionally, Mr. Rothbard agreed that any future increases to salary will be determined on an annual basis by our Board at the recommendation of the Compensation Committee, and the annual 10% increases provided in his agreement shall be overridden by such future determinations by the Board.

Pursuant to the First Feldmann Amendment and First Steinman Amendment, Prof. Sir Feldmann and Prof. Steinman agreed effective March 1, 2022, that their salary would be reduced by \$225,000 (100%) and \$56,250 (25%), respectively, and that such reduced amounts shall be accrued and paid on the Final Determination Date.

Pursuant to the Second Nanchahal Amendment, Prof. Nanchahal agreed that upon acceptance of the data for the phase 2b clinical trial for Dupuytren’s disease for publication (which occurred March 1, 2022, subject to editing and final approvals), his monthly fee was increased to £23,000, provided that £4,000 of such increase shall be accrued and £19,000 per month of such fees shall be payable per our payroll practices in cash by us starting effective March 1, 2022, and until the earlier of (a) November 1, 2022 and (b) the Funding Determination Date, at which time all accrued amounts shall be due.

Summary Executive Compensation Table

The following table sets forth certain information concerning compensation earned by or paid to certain persons who we refer to as our “Named Executive Officers” for services provided for the fiscal years ended December 31, 2021 and 2020. Our Named Executive Officers include persons who (i) served as our, or 180’s, principal executive officer or acted in a similar capacity during the years ended December 31, 2021 and 2020, (ii) were serving at fiscal year-end as our two most highly compensated executive officers, other than the principal executive officer, whose total compensation exceeded \$100,000, and (iii) if applicable, up to two additional individuals for whom disclosure would have been provided as a most highly compensated executive officer, but for the fact that the individual was not serving as an executive officer at fiscal year-end.

As noted above, none of the executive officers of KBL prior to the Closing, including our former Chief Executive Officer, received any cash compensation for their services.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (\$)	Non-Equity Incentive Plan Compensation	All Other Compensation (\$) ⁽ⁱ⁾	Total (\$)
James N. Woody ⁽¹⁾	2021	\$ 448,270	\$ (*)	\$ —	\$ 4,262,492 ^(a)	\$ —	\$ —	\$ 4,710,762
Chief Executive Officer and Director	2020	\$ 175,166	\$ —	\$ —	\$ —	\$ —	\$ 90,000 ⁽⁷⁾	\$ 265,166
Ozan Pamir ⁽²⁾	2021	\$ 304,355	\$ 30,000 ^(*)	\$ —	\$ 548,035 ^(b)	\$ —	\$ —	\$ 882,390
Interim Chief Financial Officer	2020	\$ 187,000	\$ —	\$ —	\$ —	\$ —	\$ 112,750 ⁽⁵⁾⁽⁶⁾	\$ 299,750
Quan Anh Vu ⁽³⁾	2021	\$ 65,000	\$ (*)	\$ —	\$ 846,573 ^(c)	\$ —	\$ —	\$ 911,573
COO and CBO								
Jonathan Rothbard ⁽⁴⁾	2021	\$ 372,034	\$ (*)	\$ 160,671 ^(d)	\$ 923,534 ^(e)	\$ —	\$ —	\$ 1,456,239
Chief Scientific Officer	2020	\$ 333,968	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 333,968

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Does not include perquisites and other personal benefits or property, unless the aggregate amount of such compensation is more than \$10,000. No executive officer earned non-equity incentive plan compensation or nonqualified deferred compensation during the periods reported above. Option Awards and Stock Awards represent the aggregate grant date fair value of awards computed in accordance with Financial Accounting Standards Board Accounting Standard Codification Topic 718. For additional information on the valuation assumptions with respect to the restricted stock grants, refer to “NOTE 13 — STOCKHOLDERS’ EQUITY” to the audited financial statements included in the 2021 Annual Report. No executive officer serving as a director received any compensation for services on the Board separate from the compensation paid as an executive for the periods above.

- * The amount of each executive’s 2021 bonuses have not yet been determined by the Compensation Committee and/or the Board as of the date of this filing, and are therefore not included in the table above. The amount of each executive’s bonuses for fiscal 2021, if any, will be disclosed in a separate filing under Item 5.02(f) of Form 8-K within four days of the date finalized by the Compensation Committee and/or the Board. Such bonuses may be in the form of cash or equity or a combination of cash and equity.
- (1) Dr. Woody was a consultant of 180 from January 1, 2020 through June 30, 2020 and was paid \$90,000 in consultant fees. On August 13, 2020, effective July 1, 2020, Mr. Woody was hired as the Chief Executive Officer of 180, and of our Company, beginning November 6, 2020. Effective November 6, 2020, Dr. Woody and we entered into an employment agreement which entitles Dr. Woody to an annual salary of \$450,000 and a target bonus of 45%. As of the date of this prospectus, all of the amounts owed to Dr. Woody have been fully paid.
 - (2) On November 9, 2020, Mr. Pamir was hired as the Chief Financial Officer of 180, and, starting November 27, 2020, Interim Chief Financial Officer of our Company. Effective November 9, 2020, Mr. Pamir has a new employment agreement which entitles him to an annual salary of \$300,000 and a target bonus of 30%. As of the date of this prospectus, all of the amounts owed to Mr. Pamir have been fully paid.
 - (3) On October 29, 2021, the Board appointed Mr. Quan Anh Vu as our COO/CBO. On October 27, 2021, and effective on November 1, 2021, we entered into an Employment Agreement with Quan Anh Vu. In consideration for performing services under the agreement, we agreed to pay Mr. Vu a starting salary of \$390,000 per year. As of the date of this prospectus, all of the amounts owed to Mr. Vu have been fully paid.
 - (4) Dr. Rothbard was the Chief Executive Officer and Chief Scientific Officer of Katexco, and Chief Scientific Officer of our Company following the closing of the Business Combination. As of the Business Combination, Dr. Rothbard has a new employment agreement which entitles him to an annual salary of \$375,000 and a target bonus of 50%. As of the date of this prospectus, all of the amounts owed to Dr. Rothbard have been fully paid via cash and issuance of stock.
 - (5) Represents consulting fees paid by CBR Pharma. The consulting agreement has been terminated.
 - (6) Based on a U.S. dollar to Canadian dollar exchange rate of 1.3649 on December 31, 2020.
 - (a) Represents the value of ten year options to purchase 1,400,000 shares of common stock with an exercise price of \$4.43 per share which were granted on February 26, 2021.
 - (b) Represents the value of ten year options to purchase 180,000 shares of common stock with an exercise price of \$4.43 per share which were granted on February 26, 2021.
 - (c) Represents the value of ten year options to purchase 275,000 shares of common stock with an exercise price of \$3.95 per share which were granted on December 8, 2021.
 - (d) Represents the value of ten year options to purchase 300,000 shares of common stock with an exercise price of \$3.95 per share which were granted on December, 2021.
 - (e) Represents the value of 24,307 shares of common stock issued to Dr. Rothbard in consideration for services rendered to us as Chief Scientific Officer.

Bonuses

No bonuses were paid to the officers named in the table above, whether by 180 prior to the Closing or by our Company following the Closing, during the fiscal years ended December 31, 2021 or 2020, except as disclosed in the table above.

Outstanding Equity Awards at Year Ended December 31, 2021

Name	Option awards			
	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price (\$)	Option expiration date
James N. Woody	560,000	840,000 ⁽¹⁾	\$ 4.43	2/26/2031
Ozan Pamir	72,000	108,000 ⁽¹⁾	\$ 4.43	2/26/2031
Quan Anh Vu	11,458	263,542 ⁽²⁾	\$ 3.95	12/8/2031
Jonathan Rothbard	106,250	193,750 ⁽³⁾	\$ 3.95	12/8/2031

- (1) (a) 1/5th of such options vesting on the grant date (February 26, 2021); and (b) 4/5ths of such options vesting ratably on a monthly basis over the following 36 months on the last day of each calendar month.
- (2) The options vest in 48 equal monthly installments, beginning on the last day of November 2021, and continuing on the last day of each calendar month thereafter, subject to the person's continued service to the Company on such vesting dates.
- (3) The options vest at the rate of 1/3rd of such options at the date of grant (December 8, 2021) with the remaining options vesting at the rate of 24 equal monthly installments, beginning on the last day of December 31, 2021, and continuing on the last day of each calendar month thereafter, subject to the person's continued service to the Company on such vesting dates.

There were no outstanding unvested stock awards as of December 31, 2021.

Potential Payments Upon Termination

Pursuant to the employment agreements for Dr. Woody, Dr. Rothbard, Mr. Pamir and Mr. Vu, severance benefits will be paid in the event of a termination without "just cause" (as defined in such agreements). Dr. Woody, in the event of such termination, is entitled to severance payments in the form of continued base salary, for the lesser of eighteen (18) months or the then remaining term of the agreement, (ii) payment of any accrued and unpaid annual bonus for any year preceding the year in which the employment terminates; (iii) payment of a pro rata annual bonus for the year in which the employment terminates calculated by multiplying the target bonus amount by a fraction, the numerator of which is the number of calendar days elapsed in the year as of the effective date of termination of employment and the denominator of which is 365; and (iv) payment by us of Dr. Woody's monthly health insurance premiums. For Dr. Rothbard, in the event of such termination during his first year, Dr. Rothbard would be entitled to his then base salary for a period of 36 months, during his second year, Dr Rothbard would be entitled to his then base salary for a period of 24 months, and 12 months if the termination happens in the third year of Dr. Rothbard's employment or thereafter; (ii) payment of any accrued and unpaid annual bonus for any year preceding the year in which the employment terminates; (iii) payment of a pro rata annual bonus for the year in which the employment terminates calculated by multiplying the target bonus amount by a fraction, the numerator of which is the number of calendar days elapsed in the year as of the effective date of termination of employment and the denominator of which is 365; and (iv) payment by us of monthly health insurance premiums. For Mr. Pamir, in the event of such termination, he would be entitled to an amount equal to his then current base salary for a period of (3) months. For Mr. Vu, in the event of such termination, he would be due 12 months of base salary (pro-rated if termination occurs during the first year of the agreement), any accrued annual bonus, the pro rata amount of the next year's bonus, and monthly health insurance payments for the period that Mr. Vu is eligible to receive severance payments.

Director Compensation

The following table sets forth compensation information with respect to our nonexecutive directors during our fiscal year ended December 31, 2021:

Name	Fees earned or paid in cash (\$)	Stock awards (\$) ⁽³⁾	Option Awards (\$) ⁽³⁾	All other compensation (\$)	Total (\$)
Lawrence Steinman ⁽¹⁾	\$ 112,619	\$ 149,290 ^(a)	\$ 76,961 ^(e)	\$ —	\$ 338,870
Sir Marc Feldmann, Ph.D., M.D. ⁽⁴⁾	\$ 152,583	\$ 160,084 ^(b)	\$ 76,961 ^(e)	\$ —	\$ 389,628
Larry Gold, Ph.D. ⁽²⁾⁽³⁾	\$ 49,375	\$ 46,662 ^(c)	\$ 300,052 ^(f)	\$ —	\$ 396,089
Donald A. McGovern, Jr., MBA ⁽²⁾⁽³⁾	\$ 55,625	\$ 49,022 ^(d)	\$ 300,052 ^(f)	\$ —	\$ 404,699
Russell T. Ray, MBA	\$ 14,375	\$ —	\$ 395,068 ^(g)	\$ —	\$ 409,443
Teresa DeLuca, M.D., MBA	\$ 27,500	\$ —	\$ 395,068 ^(g)	\$ —	\$ 422,568
Francis Knuettel II, MBA	\$ 27,500	\$ —	\$ 395,068 ^(g)	\$ —	\$ 422,568
Pamela G. Marrone, Ph.D.	\$ 22,500	\$ —	\$ 395,068 ^(g)	\$ —	\$ 417,568

* The table above does not include the amount of any expense reimbursements paid to the above directors. No directors received any Non-Equity Incentive Plan Compensation or Nonqualified Deferred Compensation. Does not include perquisites and other personal benefits, or property, unless the aggregate amount of such compensation is more than \$10,000.

- (1) A total of \$50,119 of this amount was paid pursuant to a May 2018 consulting agreement with CannBioRex, discussed in greater detail above under “Business — Material Agreements — Consulting Agreements — Consultancy Agreement with Prof. Lawrence Steinman”.
- (2) On December 3, 2020, we granted to each of Dr. Gold and Mr. McGovern options to purchase up to 25,000 shares of our common stock at an exercise price of \$2.49 per share. The options vest in equal monthly instalments over the 12 months after the grant date, subject to such director’s continued service to our company on such vesting dates.
- (3) Represents the aggregate grant date fair value of the award computed in accordance with the provisions of Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 718. The assumptions used in calculating the aggregate grant date fair value of the awards reported in this column are set forth in our consolidated financial statements included in this prospectus. As of December 31, 2021, the aggregate number of option awards outstanding held by each non-executive director (including vested and unvested awards) serving on that date was as follows: Lawrence Steinman — 25,000; Sir Marc Feldmann — 25,000; Larry Gold — 85,000; Donald A. McGovern, Jr. — 85,000; Russell T. Ray — 79,000; Teresa DeLuca — 79,000; Francis Knuettel II — 79,000; and Pamela G. Marrone — 79,000. None of the non-executive directors held any unvested stock awards as of December 31, 2021.
- (4) Based on a GBP to USD exchange rate of 1.38. Amounts paid were for services rendered as the Chairman, Chief Executive Officer and Executive Director of CannBioRex, pursuant to the June 2018 Service Agreement, discussed in greater detail above under “Business — Material Agreements — Consulting Agreements — Service Agreement with Prof. Sir Marc Feldmann”.
 - (a) Represents the value of 22,585 shares of common stock issued in consideration for services rendered.
 - (b) Represents the value of 26,446 shares of common stock issued in consideration for services rendered.
 - (c) Represents the value of 7,132 shares of common stock issued in consideration for services rendered.
 - (d) Represents the value of 7,226 shares of common stock issued in consideration for services rendered.
 - (e) Represents the value of ten year options to purchase 25,000 shares of common stock with an exercise price of \$3.95 per share which were granted on December 8, 2021.
 - (f) Represents the value of ten year options to purchase 60,000 shares of common stock with an exercise price of \$7.56 per share which were granted on August 4, 2021.
 - (g) Represents the value of ten year options to purchase 79,000 shares of common stock with an exercise price of \$7.56 per share which were granted on August 4, 2021.

In connection with each of Mr. Ray’s, Dr. DeLuca’s, Mr. Knuettel’s and Dr. Marrone’s appointment to the Board, such persons entered into offer letters with us, dated on or around May 21, 2021 (collectively, the “Offer Letters”). The Offer Letters set forth the compensation that Mr. Ray, Dr. DeLuca, Mr. Knuettel and Dr. Marrone are entitled to receive, including a grant of options to purchase \$425,000 of value of shares of our common stock (value per share and number of shares determined by the Black-Scholes calculation on the date of grant)(i.e., options to purchase 79,000 shares of common stock)(the “Initial Option Grant”), which have been granted to date, and which will vest as to 1/48 of the balance of the option shares upon each month of service after the date of grant and have an exercise price per share equal to the closing sales price of a share of common stock on the grant date.

Board of Director Fees

The current policy of the Board is to pay each independent Board Member, in addition to equity compensation as may be approved from time to time by the Board and/or Compensation Committee, \$40,000 per compensation year as an annual retainer fee payable to each member of the Board, plus additional committee fees of \$5,000 for each member of the Compensation Committee or Nomination and Corporate Governance Committee, and \$7,500 for each member of the Audit Committee or Risk Committee; \$10,000 for the Chairperson of the Compensation Committee and the Nomination and Corporate Governance Committee and \$15,000 for the Chairperson of the Audit Committee and of the Risk Committee. Additionally, the Lead Director (currently Mr. McGovern) is to receive an additional equity grant each year valued at \$30,000. For independent directors, cash fees are earned and paid one quarter in arrears. The Board also currently grants each new independent director an option to purchase 100,000 shares of common stock, at the exercise price equal to the fair market value on the date of grant as calculated pursuant to the Plan, and such options vesting in equal monthly installments over the 48 months after the grant date, subject to the holder's continued service to the Company on such vesting dates. Due to limitations on the amount of compensation that can be paid to directors in a compensation year, as defined, new independent directors in 2021 were issued an option to purchase 79,000 shares of common stock (as disclosed above) and it is anticipated that they will be issued in 2022 an option to purchase the remaining 21,000 shares of common stock of the new independent director grant. In addition, it is anticipated that Dr. Gold and Mr. McGovern will be issued an option to purchase 15,000 shares of common stock in 2022 representing the remaining balance of their initial new independent director grant. The Board has not yet initiated a recurring yearly equity compensation grant for independent directors and does not anticipate such a grant for calendar 2022.

The following is a summary of compensation awards made to officers and directors since January 1, 2021:

In February 2021, in consideration for services rendered, we granted Dr. James N. Woody, our Chief Executive Officer, options to purchase 1,400,000 shares of our common stock with an exercise price of \$4.43 per share and Mr. Ozan Pamir, our Interim Chief Financial Officer, options to purchase 180,000 shares of our common stock with an exercise price of \$4.43 per share.

In March 2021, we issued 2,503 shares of common stock for director fees due to Donald A. McGovern, Jr., our lead independent director, in consideration for services rendered; and 2,101 shares of common stock for director fees due to Larry Gold, an independent director, in consideration for services rendered.

Effective on August 4, 2021 (prior to market open), the Board approved (a) the grant of options to purchase 60,000 shares of common stock with an exercise price of \$7.56 per share (the closing sales price of our common stock on August 3, 2021), and a term of 10 years, which vest at the rate of 1/48th of such options per month, beginning on August 31, 2021, contingent on each holder's continued service on the Board, to each of Donald A. McGovern, Jr. and Larry Gold, each independent members of the Board who have served on the Board since the November 2020 closing of the Business Combination, in consideration for services to be rendered to the Board; (b) the grant of options to purchase 79,000 shares of common stock with an exercise price of \$7.56 per share (the closing sales price of our common stock on August 3, 2021), and a term of 10 years, which vest at the rate of 1/48th of such options per month, beginning on August 31, 2021, contingent on each holder's continued service on the Board, to each of Russell T. Ray, Teresa DeLuca, Pamela Marrone, and Francis Knuettel II, each independent members of the Board who were appointed as directors in July 2021, in consideration for services to be rendered to the Board; and (c) 5,135 shares of common stock to Mr. McGovern and 4,629 shares of common stock to Dr. Gold, in lieu of accrued cash fees, each in consideration for services rendered to the Board for the quarters ended March 31, 2021 and June 30, 2021.

Effective on December 8, 2021, the Board approved the grant to:

- (a) Mr. Quan Anh Vu, our newly appointed Chief Operating Officer/Chief Business Officer, of Incentive Stock Options (ISO) (provided that to the extent the total amount of such options vesting in one year, together with any other options held by Mr. Vu, exceed \$100,000, such options shall be non-qualified stock options (NQSO)(the "\$100,000 Limit")), to purchase 275,000 shares of our common stock, vesting in 48 equal monthly installments, beginning on the last day of November 2021, and continuing on the last day of each calendar month thereafter, subject to Mr. Vu's continued service to the Company, and subject to accelerated vesting upon Mr. Vu's death or disability, termination without cause or a termination by Mr. Vu for good reason, or a change of control or sale of the Company, the anticipated grant of which were previously disclosed by us;
- (b) Mr. Jonathan Rothbard, our Chief Science Officer, ISOs to purchase 300,000 shares of our common stock (subject to the \$100,000 Limit), vesting 1/3rd of such options at the date of grant and vesting the remaining options at the rate of 24 equal monthly installments, beginning on the last day of December 31, 2021, and

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continuing on the last day of each calendar month thereafter, subject to Mr. Rothbard's continued service to the Company, and subject to accelerated vesting upon Mr. Rothbard's death or disability, termination without cause or a termination by Mr. Rothbard's for good reason, or a change of control or sale of the Company; and

- (c) Dr. Lawrence Steinman and Sir Marc Feldmann, our Executive Co-Chairmen, NQSOs to purchase 25,000 shares of common stock each, vesting immediately on the date of grant.

All of the options described above had a term of 10 years, and had an exercise price equal to \$3.95 per share, the closing sales price of our common stock on the date of grant.

Also on December 8, 2021, we agreed to issue Sir Marc Feldmann an aggregate of 5,536 shares of common stock in consideration for \$43,470 in accrued compensation for services to the Board, 50% of which is \$21,870 of net pay. Such shares were issued pursuant to the Plan and valued at \$3.95 per share, the closing sales price on the date of grant.

All of the securities described above were issued under and pursuant to our 2020 Omnibus Incentive Plan.

Equity Compensation Plan Information

The following table sets forth information, as of December 31, 2021, with respect to our compensation plans under which common stock is authorized for issuance.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (A)	Weighted-average exercise price of outstanding options, warrants and rights (B)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in Column A) (C)
Equity compensation plans approved by stockholders ⁽¹⁾	2,691,000	\$ 4.79	698,608
Equity compensation plans not approved by stockholders ⁽²⁾	63,658	\$ 5.28	—
Total	2,754,658		698,608

(1) Options granted and awards available for future issuance under the 2020 OIP, discussed below.

(2) This relates to five-year warrants granted on March 12, 2021, for the purchase of 63,658 shares of the Company's common stock at an exercise price of \$5.28 held by Alliance Global Partners ("AGP").

2020 Omnibus Incentive Plan

We have reserved 3,718,140 shares of our common stock for grant under our 2020 Omnibus Incentive Plan ("2020 OIP"), of which 689,608 shares are available for future awards as of the date of this prospectus.

The purpose of the 2020 OIP is to promote our interests of our Company and our subsidiaries and our stockholders by (i) attracting and retaining directors, executive officers, employees and consultants of outstanding ability; (ii) motivating such individuals by means of performance-related incentives to achieve the longer-range performance goals of our Company and our subsidiaries; and (iii) enabling such individuals to participate in the long-term growth and financial success of our Company.

2022 Omnibus Incentive Plan

We are asking our stockholders to approve the 180 Life Sciences Corp. 2022 Omnibus Incentive Plan (the "OIP") at the annual meeting. The OIP was approved by our Board on April 26, 2022, subject to approval by our stockholders.

The purpose of the OIP is to promote the interests of our Company and our subsidiaries and our stockholders by (i) attracting and retaining directors, executive officers, employees and consultants of outstanding ability; (ii) motivating such individuals by means of performance-related incentives to achieve the longer-range performance goals of our Company and our subsidiaries; and (iii) enabling such individuals to participate in the long-term growth and financial success of our Company.

BENEFICIAL OWNERSHIP OF SECURITIES

The following table sets forth, as of April 25, 2022, the number and percentage of outstanding shares of our common stock, Class C Special Voting Shares; and Class K Special Voting Shares, beneficially owned by: (a) each person who is known by us to be the beneficial owner of more than 5% of our outstanding shares of common stock; (b) each of our directors; (c) each of our Named Executive Officers (as defined below under “Executive and Director Compensation — Summary Executive Compensation Table”); and (d) all current directors and Named Executive Officers, as a group.

Beneficial ownership has been determined in accordance with Rule 13d3 under the Exchange Act. Under this rule, certain shares may be deemed to be beneficially owned by more than one person (if, for example, persons share the power to vote or the power to dispose of the shares). In addition, shares are deemed to be beneficially owned by a person if the person has the right to acquire shares (for example, upon exercise of an option or warrant or upon conversion of a convertible security) within 60 days of the date as of which the information is provided. In computing the percentage ownership of any person, the amount of shares is deemed to include the amount of shares beneficially owned by such person by reason of such acquisition rights. As a result, the percentage of outstanding shares of any person as shown in the following table does not necessarily reflect the person’s actual voting power at any particular date.

Beneficial ownership as set forth below is based on our review of our record stockholders list and public ownership reports filed by certain of our stockholders, and may not include certain securities held in brokerage accounts or beneficially owned by the stockholders described below.

Unless otherwise indicated, we believe that all persons named in the table below have sole voting and investment power with respect to all shares of common stock beneficially owned by them. Unless otherwise indicated, the business address of each of the entities, directors and executive officers in this table is 3000 El Camino Real, Bldg. 4, Suite 200, Palo Alto, California 94306.

Name and Address of Beneficial Owners	Number of Common Stock Shares Beneficially Owned	Percent of Common Stock
Directors and Executive Officers		
James N. Woody	753,308 ⁽¹⁾	2.2%
Jonathan Rothbard	697,949 ⁽²⁾	2.0%
Ozan Pamir	168,408 ⁽³⁾	*
Quan Anh Vu	60,604 ⁽⁴⁾	*
Lawrence Steinman	627,574 ⁽⁵⁾	1.8%
Marc Feldmann	2,834,930 ⁽⁵⁾	8.3%
Donald A. McGovern, Jr.	75,678 ⁽⁶⁾	*
Larry Gold	48,958 ⁽⁶⁾	*
Francis Knuettel II	16,458 ⁽⁷⁾	*
Pamela G. Marrone	19,925 ⁽⁷⁾	*
Teresa M. DeLuca	28,958 ⁽⁷⁾⁽⁸⁾	*
Russell T. Ray	21,186 ⁽⁷⁾	*
All officers and directors as a group (12 persons)	5,353,936	15.2%
5% Stockholders		
Ron Bauer	2,280,171 ⁽⁹⁾	6.7%
Marlene Krauss	2,758,706 ⁽¹⁰⁾	8.1%
Craig Bridgman	1,753,543 ⁽¹¹⁾	5.1%

* Less than one percent.

- (1) Includes options to purchase 715,556 shares of common stock at an exercise price of \$4.43 per share, which have vested, and/or which vest within 60 days of April 25, 2022.
- (2) Includes options to purchase 137,500 shares of common stock at an exercise price of \$3.95 per share, which have vested, and/or which vest within 60 days of April 25, 2022.

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- (3) Includes options to purchase 92,000 shares of common stock at an exercise price of \$4.43 per share, which have vested, and/or which vest within 60 days of April 25, 2022.
- (4) Includes options to purchase 40,104 shares of common stock at an exercise price of \$3.95 per share, which have vested, and/or which vest within 60 days of April 25, 2022.
- (5) Includes options to purchase 25,000 shares of common stock at an exercise price of \$3.95 per share, which have vested, and/or which vest within 60 days of April 25, 2022.
- (6) Includes options to purchase 25,000 shares of common stock at an exercise price of \$2.49 per share, and options to purchase 12,500 shares of common stock at an exercise price of \$7.56, in each case which have vested, and/or which vest within 60 days of April 25, 2022.
- (7) Includes options to purchase 16,458 shares of common stock at an exercise price of \$7.56 per share, which have vested, and/or which vest within 60 days of April 25, 2022.
- (8) Includes 2,500 shares of common stock held by Teresa M. DeLuca's spouse, 2,500 shares of common stock held by The Santina Irraggi Irrvoc TR, U/A 11/2/20, an irrevocable trust, of which Teresa M. DeLuca is beneficiary and trustee, and 2,500 shares of common stock held by the REV TR FBO Teresa M Deluca, a revocable trust, of which Teresa M. DeLuca is beneficiary and trustee, all of which shares Teresa M. DeLuca is deemed to beneficially own.
- (9) Includes 1,406,250 shares of common stock held by Tyche Capital LLC (1209 Orange Street, Wilmington, New Castle County, Delaware 19801); and 873,921 shares of common stock held by Theseus Capital Ltd. Mr. Bauer (One Capital Place, Third Floor, P.O. Box 1564, Grand Cayman, Cayman Islands, KY1-1110) beneficially owns the shares of common stock held by Tyche Capital LLC and is the sole member and manager of Tyche Capital LLC. Mr. Bauer beneficially owns the shares of Common Stock held by Theseus Capital Ltd. and is the sole shareholder of Theseus Capital Ltd. Does not include beneficial ownership (voting and/or dispositive power) over the shares held by Astatine Capital Ltd, a Cayman Islands company, whose sole shareholder is Samantha Bauer, the wife of Ronald Bauer. The disclosures above are based on information reported on Schedule 13G filed by Ronald Bauer with the SEC on December 31, 2020, which we do not know or have reason to believe is not complete or accurate and on which we are relying pursuant to applicable SEC regulations. The 1,406,250 shares of common stock held by Tyche Capital LLC are subject to dispute by the Company pursuant to the lawsuit discussed in greater detail below under "Certain Relationships and Related Party Transactions".
- (10) Reflects (A) 298,834 shares of the common stock that are owned directly by Marlene Krauss, M.D., and (B) 1,986,858 shares of the common stock and warrants to purchase up to 236,507 shares of the common stock, that are owned directly by KBL IV Sponsor LLC. KBL IV Sponsor LLC is controlled by its managing member, Marlene Krauss, M.D., the former Chief Executive Officer, and a former member of the Board of Directors, of the Company. Accordingly, Dr. Krauss may be deemed to beneficially own the securities that are directly owned by KBL IV Sponsor LLC. However, Dr. Krauss disclaims beneficial ownership over any securities owned directly by KBL IV Sponsor LLC in which she does not have a pecuniary interest. Address, 30 Park Place, Suite 64B, New York, New York 10007. The disclosures above are based on information reported on Schedule 13D/A filed by KBL IV Sponsor LLC and Marlene Krauss, M.D. with the SEC on December 30, 2020, which we do not know or have reason to believe is not complete or accurate and on which we are relying pursuant to applicable SEC regulations.
- (11) Includes shares of common stock held by the following individual and entities: Capri Mercantile Ltd. — 522,335 shares of common stock; Hoja Inc. — 673,513 shares of common stock; Cambridge Capital Ltd. — 423,618 shares of common stock; Biovation Sciences Ltd. — 61,469 shares of common stock; Amamasam Inc. — 50,488 shares of common stock; and Mr. Craig Bridgman — 1,753,543 shares of common stock. Mr. Bridgman may be deemed to beneficially own the shares of common stock held by Capri Mercantile Ltd. Mr. Bridgman is a director and shareholder of Capri Mercantile Ltd. Mr. Bridgman may be deemed to beneficially own the shares of common stock held by Hoja Inc. Mr. Bridgman is a director and shareholder of Hoja Inc. Mr. Bridgman may be deemed to beneficially own the shares of common stock held by Cambridge Capital Ltd. Mr. Bridgman is a director and shareholder of Cambridge Capital Ltd. Mr. Bridgman may be deemed to beneficially own the shares of common stock held by Biovation Sciences Ltd. Mr. Bridgman is a director and shareholder of Biovation Sciences Ltd. Mr. Bridgman may be deemed to beneficially own the shares of common stock held by Amamasam Inc. Mr. Bridgman is a director and shareholder of Amamasam Inc. The address of each person and entity discussed above is: Capri Mercantile Ltd. — The Grove, 21 Pine Road, St. Michael, Barbados, BB11113; Hoja Inc. — 303 Shirley Street, Nassau, The Bahamas; Cambridge Capital Ltd. — The Grove, 21 Pine Road, St. Michael, Barbados, BB11113; Amamasam Inc. — Clinch's House, Lord Street, Douglas, Isle of Man, IM99 1RZ; Biovation — The Grove, 21 Pine Road, St. Michael, Barbados, BB11113; and Mr. Craig Bridgman — Dubai, UAE, 211281. The disclosures above are based on information reported on Schedule 13D filed by Capri Mercantile Ltd., Hoja Inc., Cambridge Capital Ltd., Biovation Sciences Ltd., Amamasam Inc. and Mr. Craig Bridgman, with the SEC on December 28, 2020, which we do not know or have reason to believe is not complete or accurate and on which we are relying pursuant to applicable SEC regulations.

Change of Control

We are not aware of any arrangements which may at a subsequent date result in a change of control of the Company.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Except as discussed below or otherwise disclosed above under “Executive and Director Compensation”, beginning on page 112, respectively, there have been no transactions over the last two fiscal years, and there is not currently any proposed transaction, in which the Company was or is to be a participant, where the amount involved exceeds the lesser of (a) \$120,000 or (b) one percent of the Company’s total assets at year-end for the last two completed fiscal years, and in which any officer, director, or any stockholder owning greater than five percent (5%) of our outstanding voting shares, nor any member of the above referenced individual’s immediate family, had or will have a direct or indirect material interest.

360 Life Sciences Corp. Agreement — Related Party (Acquisition of ReFormation Pharmaceuticals Corp.)

On July 1, 2020, we entered into an amended agreement with ReFormation Pharmaceuticals, Corp. (“ReFormation”) and 360 Life Sciences Corp. (“360”), whereby 360 has entered into an agreement to acquire 100% ownership of ReFormation, on or before July 31, 2020 (“ReFormation Closing Date”). We used to share a director with each of ReFormation and 360. On March 25, 2022, our director resigned from serving on the Board of 360 and he had previously resigned from serving on the Board of Reformation. Upon the ReFormation Closing Date, 360 agreed to make tranche payments in tranches to 180 LP in the aggregate amount of \$300,000. The parties agreed that the obligations will be paid by 360 to 180 LP by payments of \$100,000 for every \$1,000,000 raised through the financing activities of 360, up to a total of \$300,000, however, not less than 10% of all net financing proceeds received by 360 shall be put towards the obligation to us until paid in full. This transaction closed on July 31, 2020.

On February 26, 2019, 180 LP entered into a one-year agreement (the “Pharmaceutical Agreement”) with ReFormation, a related party that shares directors and officers of 180 LP, pursuant to which the ReFormation agreed to pay 180 LP \$1.2 million for rights of first negotiation to provide for an acquisition of any arising intellectual property or an exclusive licensing, partnering, or collaboration transaction to use any arising intellectual property with respect to a contemplated research agreement between us and Oxford (see Oxford University Agreements, above), which was signed on March 22, 2019 and therefore is the start date of the project. Of the \$1.2 million receivable from Reformation pursuant to the Pharmaceutical Agreement, \$0.9 million was received by us on March 14, 2019 and the remaining \$0.3 million was expected to be received over the one-year term of the agreement.

180 LP is recognizing the income earned in connection with the Pharmaceutical Agreement on a straight-line basis over the term of the agreement. During the years ended December 31, 2021 and 2020, 180 LP recognized \$0 and \$240,000, respectively, of income related to the Pharmaceutical Agreement, which is included in other income in the accompanying consolidated statement of operations and other comprehensive income loss. As of December 31, 2021, we charged the \$300,000 receivable to bad debt expense.

Notice of Acceleration

On December 29, 2020, we received notice from Marlene Krauss, M.D., the former Chief Executive Officer and director of KBL, alleging the occurrence of an event of default of the terms of a certain promissory note in the amount of \$371,178, dated March 15, 2019, evidencing amounts owed by us to KBL IV Sponsor LLC (of which Dr. Krauss serves as sole managing member), for failure to repay such note within five days of the release of funds from escrow in connection with the terms of a purchase agreement. Dr. Krauss has declared the entire amount of the note to be immediately due and payable. The note, pursuant to its terms, accrues damages of \$2,000 per day until paid in full (subject to a maximum amount of damages equal to the principal amount of the note upon the occurrence of the event of default thereunder). There are continuing disputes regarding amounts that may be due to Dr. Krauss under the note.

Service Agreement with Prof. Sir Marc Feldmann

See “Service Agreement with Prof. Sir Marc Feldmann” under “Material Agreements — Consulting Agreements”, in the section entitled “Business”, above.

Prof. Lawrence Steinman Consultancy Agreement and Consulting Agreement

See “Consultancy Agreement with Prof. Lawrence Steinman” and “Lawrence Steinman, M.D. Consulting Agreement” under “Material Agreements — Consulting Agreements”, in the section entitled “Business”, above.

Prof. Jagdeep Nanchahal Consulting Agreement

See “Prof. Jagdeep Nanchahal Consulting Agreement” under “Material Agreements — Consulting Agreements”, in the section entitled “Business”, above.

During the year ended December 31, 2021, we incurred research and development expenses — related parties of \$2,947,536 compared to \$75,633 incurred for the year ended December 31, 2020, representing an increase of 2,871,903 or 3,797%. The increase includes related party consultation fees paid to Jagdeep Nanchahal for his research in the Phase 2b clinical trial for Dupuytren’s Contracture (RIDDD) totaling \$800,000 and stock compensation expense paid to Mr. Nanchahal of approximately \$1,400,000 and an additional overall increase in stock compensation expense of approximately \$700,000.

Exchanges of Related Party Loans and Convertible Notes

On September 30, 2021, Dr. Lawrence Steinman and Sir Marc Feldmann, Ph.D., each of whom serves as an Executive Co-Chairman of our Board, agreed with us to convert amounts owed under outstanding loans with an aggregate principal balance of \$693,371 and an aggregate accrued interest balance of \$157,741 into an aggregate of 141,852 shares of our common stock at the conversion price of \$6.00 per share, pursuant to the terms of the agreement, which conversion rate was above the closing consolidated bid price of our common stock on the date the binding agreement was entered into.

Notes and Debt Conversion Agreement

In November 2020, 63,269 shares of common stock were issued to insiders (Sir Marc Feldmann and Dr. Lawrence Steinman) as a result of conversion of \$239,320 of convertible debt.

On February 10, 2021, we entered into amended loan agreements to modify the terms of certain loan agreements in the aggregate principal amount of \$432,699, previously entered into with Sir Marc Feldmann and Dr. Lawrence Steinman, the Executive Co-Chairmen of the Board. The loan agreements were extended and modified to be paid back at our discretion, either by 1) repayment in cash, or 2) by converting the outstanding amounts into shares of common stock at the same price per share as the next financing transaction. Subsequently, on February 25, 2021, and effective as of the date of the original February 10, 2021 amendments, we determined that such amendments were entered into in error and each of Prof. Sir Feldmann and Dr. Steinman rescinded such February 10, 2021 amendments pursuant to their entry into Confirmations of Rescission acknowledgements. On April 12, 2021, we entered into amended loan agreements with each of Prof. Sir Feldmann and Dr. Steinman, which extended the date of all of their outstanding loan agreements to September 30, 2021. On September 30, 2021, we entered into a Debt Conversion Agreement with Dr. Steinman and Prof. Sir Feldmann, pursuant to which: (x) we and Dr. Steinman agreed to convert an aggregate of \$31,297 owed by us to Dr. Steinman into an aggregate of 5,216 shares of our common stock; and (y) we and Dr. Feldmann agreed to convert an aggregate of \$819,818 owed by us to Dr. Feldmann into an aggregate of 136,636 shares of our common stock. Pursuant to the Debt Conversion Agreement, each of Dr. Steinman and Prof. Sir Feldmann agreed that the shares of common stock issuable in connection therewith were in full and complete satisfaction of amounts owed to such persons.

As of December 31, 2021, a total of \$81,277 of related party loans were outstanding.

Registration Rights

The holders of the founder shares and private placement units (and their component securities) and their permitted transferees are entitled to registration rights pursuant to a registration rights agreement signed on the effective date of our IPO. The holders of these securities and their permitted transferees are entitled to make up to three demands, excluding short form demands, that we register such securities. In addition, the holders and their permitted transferees have certain “piggy-back” registration rights with respect to registration statements filed subsequent to our completion of our initial business combination and rights to require us to register for resale such securities pursuant to Rule 415 under the Securities Act. Notwithstanding the foregoing, the underwriters may not exercise their demand and “piggy-back” registration rights after five (5) and seven (7) years after the effective date of the registration statement relating to our IPO and may not exercise their demand rights on more than one occasion. Further, the holders and their permitted transferees have certain “piggy-back” registration rights regarding the shares of our common stock issuable upon the conversion of a promissory note with respect to the registration statement(s) that we may file pursuant to

the Registration Rights Agreement that we entered into in connection with the June 2020 offering. We satisfied the foregoing registration rights through the filing of a Registration Statement on Form S-1 (No. 333-248539), which registration statement was declared effective on November 2, 2020; provided, however, that such registration statement became stale and an updated registration went effective on August 24, 2021. We have an obligation to register shares held by KBL IV Sponsor LLC which shares have not been registered.

Action Against Former Executive of KBL

On September 1, 2021, we initiated legal action in the Chancery Court of Delaware against Dr. Marlene Krauss (“Dr. Krauss”) and two of her affiliated companies, KBL and KBL Healthcare Management, Inc. (collectively, the “KBL Affiliates”) for, among other things, non-disclosure of certain financial liabilities in the original KBL June 30, 2020 and September 30, 2020 Quarterly Reports on Form 10-Q. We are seeking damages resulting from discrepancies in the financial statements of KBL, unauthorized monetary transfers by Dr. Krauss, and inappropriate redemption of the shares associated with KBL. There can be no assurance that we will be successful in our legal actions. As of December 31, 2021, we recorded a legal accrual of \$250,000 to cover the legal expenses of the former executives of KBL.

On October 5, 2021, Dr. Krauss and the KBL Affiliates filed an Answer, Counterclaims and Third-Party Complaint (the “Krauss Counterclaims”) against our Company and twelve individuals who are, or were, directors and/or officers of our Company, i.e., Marc Feldmann, Lawrence Steinman, James N. Woody, Teresa DeLuca, Frank Knuettel II, Pamela Marrone, Lawrence Gold, Donald A. McGovern, Jr., Russell T. Ray, Richard W. Barker, Shoshana Shendelman and Ozan Pamir (collectively, the “Third-Party Defendants”). On October 27, 2021, we and Ozan Pamir filed an Answer to the Krauss Counterclaims, and all of the other Third-Party Defendants filed a Motion to Dismiss as to the Third-Party Complaint.

On January 28, 2022, in lieu of filing an opposition to the Motion to Dismiss, Dr. Krauss and her affiliate companies filed a Motion for leave to file amended counterclaims and third-party complaint, and to dismiss six of the current and former directors previously named, i.e., to dismiss Teresa DeLuca, Frank Knuettel II, Pamela Marrone, Russell T. Ray, Richard W. Barker and Shoshana Shendelman. The Motion was granted by stipulation and, on February 24, 2022, Dr. Krauss filed an amended Answer, Counterclaims and Third-Party Complaint (the “Amended Counterclaims”). In essence, the Amended Counterclaims allege (a) that we and the remaining Third-Party Defendants breached fiduciary duties to Dr. Krauss by making alleged misstatements against Dr. Krauss in SEC filings and failing to register her shares of our common stock so that they could be traded, and (b) we breached contracts between the Company and Dr. Krauss for registration of such shares, and also failed to pay to Dr. Krauss the amounts alleged to be owing under a promissory note in the principal amount of \$371,178, plus an additional \$300,000 under Dr. Krauss’ resignation agreement. The Amended Counterclaims seek unspecified amounts of monetary damages, declaratory relief, equitable and injunctive relief, and attorney’s fees and costs.

On March 16, 2022, Donald A. McGovern, Jr. and Lawrence Gold filed a Motion to Dismiss the Amended Counterclaims against them, and we and the remaining Third-Party Defendants filed an Answer to the Amended Counterclaims denying the same. We and the Third-Party Defendants intend to continue to vigorously defend against all of the Amended Counterclaims, however, there can be no assurance that they will be successful in the legal defense of such Amended Counterclaims. In April 2022, Donald A. McGovern, Jr. and Lawrence Gold were removed from the lawsuit as parties.

Action Against the Company by Dr. Krauss

On August 19, 2021, Dr. Krauss initiated legal action in the Chancery Court of Delaware against us. The original Complaint sought expedited relief and made the following two claims: (1) it alleged that we are obligated to advance expenses including, attorney’s fees, to Dr. Krauss for the costs of defending against the SEC and certain Subpoenas served by the SEC on Dr. Krauss; and (2) it alleged that we are also required to reimburse Dr. Krauss for the costs of bringing this lawsuit against us. On or about September 3, 2021, Dr. Krauss filed an Amended and Supplemental Complaint (the “Amended Complaint”) in this action, which added the further claims that Dr. Krauss is also allegedly entitled to advancement by us of her expenses, including attorney’s fees, for the costs of defending against the Third-Party Complaint in the Tyche action referenced below, and the costs of defending against our own

Complaint against Dr. Krauss as described above. On or about September 23, 2021, we filed our Answer to the Amended Complaint in which we denied each of Dr. Krauss' claims and further raised numerous affirmative defenses with respect thereto.

On November 15, 2021, Dr. Krauss filed a Motion for Summary Adjudication as to certain of the issues in the case, which was opposed by us. A hearing on such Motion was held on December 7, 2021, and, on March 7, 2022, the Court issued a decision in the matter denying the Motion for Summary Adjudication in part and granting it in part. The Court then issued an Order implementing such a decision on March 29, 2022. The parties are now engaging in proceedings set forth in that implementing Order. The Court granted Dr. Krauss's request for advancement of certain legal fees and we are required to pay a portion of those fees while it objects to the remaining portion of the fees. We are seeking payment for a substantial portion of such amounts from our director and officers insurance policy, of which no assurance can be provided that the directors and officers insurance policy will cover such amounts.

Action Against Tyche Capital LLC

This is a litigation case which we commenced and filed against defendant Tyche Capital LLC ("Tyche") (which entity is affiliated with Ronald Bauer, a greater than 5% stockholder of the Company due to his status as the sole member and manager of Tyche) in the Supreme Court of New York, in the County of New York, on April 15, 2021. In our Complaint, we alleged claims against Tyche arising out of Tyche's breach of its written contractual obligations to us as set forth in a "Guarantee And Commitment Agreement" dated July 25, 2019, and a "Term Sheet For KBL Business Combination With CannBioRex" dated April 10, 2019 (collectively, the "Subject Guarantee"). We allege in our Complaint that, notwithstanding demand having been made on Tyche to perform its obligations under the Subject Guarantee, Tyche has failed and refused to do so, and is currently in debt to us for such failure in the \$6,776,686, together with interest accruing thereon at the rate set forth in the Subject Guarantee.

On or about May 17, 2021, Tyche responded to our Complaint by filing an Answer and Counterclaims against us alleging that it was us, rather than Tyche, that had breached the Subject Guarantee. Tyche also filed a Third-Party Complaint against six third-party defendants, including three members of our management, Sir Marc Feldmann, Dr. James Woody, and Ozan Pamir (collectively, the "Individual Company Defendants"), claiming that they allegedly breached fiduciary duties to Tyche with regards to the Subject Guarantee. In that regard, on June 25, 2021, each of the Individual Company Defendants filed a Motion to Dismiss Tyche's Third-Party Complaint against them.

On November 23, 2021, the Court granted our request to issue an Order of attachment against all of Tyche's shares of our stock that had been held in escrow (1,406,250 shares of common stock). In so doing, the Court found that we had demonstrated a likelihood of success on the merits of the case based on the fact alleged in our Complaint.

On February 18, 2022, Tyche filed an Amended Answer, Counterclaims and Third -Party Complaint. On March 22, 2022, we and each of the Individual Company Defendants filed a Motion to Dismiss all of Tyche's claims. We and the Individual Company Defendants intend to continue to vigorously defend against all of Tyche's claims, however, there can be no assurance that they will be successful in the legal defense of such claims.

Action Against Ronald Bauer & Samantha Bauer

We and two of our wholly-owned subsidiaries, Katexco Pharmaceuticals Corp. and CannBioRex Pharmaceuticals Corp. (collectively, the "Company Plaintiffs"), initiated legal action against Ronald Bauer (a greater than 5% stockholder of our Company) and Samantha Bauer, as well as two of their companies, Theseus Capital Ltd. and Astatine Capital Ltd. (collectively, the "Bauer Defendants"), in the Supreme Court of British Columbia on February 25, 2022, 2022. The Company Plaintiffs are seeking damages against the Bauer Defendants for misappropriated funds and stock shares, unauthorized stock sales, and improper travel expenses, in the combined sum of at least \$4,395,000 CAD [\$3,460,584 USD] plus the additional sum of \$2,721,036 USD. The Company Plaintiffs are currently seeking to effect service of process on each of the Bauer Defendants. Service of process has been effected on the Bauer Defendants, however, their responses are not yet due. There can be no assurance that the Company Plaintiffs will be successful in this legal action.

Related Party Transaction Policy

Our Audit Committee must review and approve any related party transaction we propose to enter into. Our Audit Committee charter details the policies and procedures relating to transactions that may present actual, potential or perceived conflicts of interest and may raise questions as to whether such transactions are consistent with the best interest of our company and our stockholders. A summary of such policies and procedures is set forth below.

Any potential related party transaction that is brought to the Audit Committee's attention will be analyzed by the Audit Committee, in consultation with outside counsel or members of management, as appropriate, to determine whether the transaction or relationship does, in fact, constitute a related party transaction. At its meetings, the Audit Committee will be provided with the details of each new, existing or proposed related party transaction, including the terms of the transaction, the business purpose of the transaction and the benefits to us and to the relevant related party.

In determining whether to approve a related party transaction, the Audit Committee must consider, among other factors, the following factors to the extent relevant:

- whether the terms of the transaction are fair to us and on the same basis as would apply if the transaction did not involve a related party;
- whether there are business reasons for us to enter into the transaction;
- whether the transaction would impair the independence of an outside director; and
- whether the transaction would present an improper conflict of interest for any director or executive officer.

Any member of the Audit Committee who has an interest in the transaction under discussion must abstain from any voting regarding the transaction, but may, if so, requested by the Chairman of the Audit Committee, participate in some or all of the Audit Committee's discussions of the transaction. Upon completion of its review of the transaction, the Audit Committee may determine to permit or to prohibit the transaction.

SELLING STOCKHOLDERS

The common stock being offered by the selling stockholders consists of: (i) 46,203 Original Shares; (ii) 33,963 shares issuable upon the exercise of the Original Warrants; (iii) 2,259,000 shares issuable upon the exercise of the February PIPE Warrants; (iv) 151,633 Bridge Note Shares; (v) 2,175,000 shares issuable upon the exercise of the August PIPE Warrants; (vi) 5,551 Alpha Shares; (vii) 25,000 shares issuable upon the exercise of the Alpha Settlement Warrants; (viii) 10,000 EarlyBird Shares; and (ix) 63,658 shares issuable upon the exercise the AGP Warrants. For additional information regarding the Original Warrants, see “June 2017 Private Placement Warrants” in the “Description of Securities” below. For additional information about the February PIPE Warrants, the Bridge Note Shares, the August PIPE Warrants, the Alpha Shares, the Alpha Settlement Warrants, the EarlyBird Shares, and the AGP Warrants, see “Recent Financing and Settlement Transactions” in the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” above.

We are registering the shares of common stock in order to permit the selling stockholders to offer the shares for resale from time to time. Except for: (i) with respect to the selling stockholders who are also party to the February SPA, the ownership of the securities that were issued to such selling stockholders pursuant to the February SPA; (ii) with respect to the Bridge Note Shares, the selling stockholders who acquired the Bridge Note Shares (upon conversion of the Bridge Notes) that are being registered for resale hereunder; (iii) with respect to the selling stockholders who are also party to the August SPA, the ownership of the securities that were issued to such selling stockholders pursuant to the August SPA; and (iv) with respect to Alpha Capital Anstalt, the ownership of the securities that were issued to such selling stockholder pursuant to the August SPA and the Alpha Settlement Agreement, the selling stockholders have not had any material relationship with us within the past three years.

The table below lists the selling stockholders and other information regarding the beneficial ownership of the shares of common stock by each of the selling stockholders. The second column lists the number of shares of common stock beneficially owned by each selling stockholder, based on its ownership of the shares of common stock and warrants, as of May 4, 2022, assuming exercise of the warrants held by the selling stockholders on that date, if any, without regard to any limitations on exercises.

The third column lists the shares of common stock being offered by this prospectus by the selling stockholders.

In accordance with the terms of a registration rights agreement that we entered into with the selling stockholders who acquired their shares of common stock and warrants pursuant to the August SPA, this prospectus generally covers the resale of the sum of (i) the number of shares of common stock issued to such selling stockholders pursuant to the August SPA and (ii) the maximum number of shares of common stock issuable upon exercise of the related warrants issued to such selling stockholders, determined as if the outstanding warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the registration rights agreement, without regard to any limitations on the exercise of the warrants.

The fourth column assumes the sale of all of the shares offered by the selling stockholders pursuant to this prospectus.

Under the terms of the warrants that were issued pursuant to the August SPA, and also pursuant to the Alpha Settlement Warrant, a selling stockholder may not exercise the warrants to the extent such exercise would cause such selling stockholder, together with its affiliates and attribution parties, to beneficially own a number of shares of common stock which would exceed 4.99% or 9.99%, as applicable, of our then outstanding common stock following such exercise, excluding for purposes of such determination shares of common stock issuable upon exercise of such warrants which have not been exercised. The number of shares in the second and fourth columns do not reflect this limitation.

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The selling stockholders may sell all, some or none of their shares in this offering. See “Plan of Distribution.”

Name of Selling Stockholder	Number of Shares of Common Stock Owned Prior to Offering	Maximum Number of Shares of Common to be Sold Pursuant to this Prospectus	Number of Shares of Common Stock Owned After the Offering
6714269 Canada Inc. ⁽¹⁾	16,672	16,672	-0-
Alliance Global Partners ⁽²⁾	63,658	63,658	-0-
Alpha Capital Anstalt ⁽³⁾	380,551	380,551	-0-
Alto Opportunity Master Fund, SPC – Segregated Master Portfolio B ⁽⁴⁾	515,000	515,000	-0-
Boothbay Absolute Return Strategies, LP ⁽⁵⁾	494,133	494,133	-0-
Boothbay Diversified Alpha Master Fund LP ⁽⁶⁾	251,840	251,840	-0-
BPY Limited ⁽⁷⁾	252,000	252,000	-0-
CFM Financial Consulting Inc. ⁽⁸⁾	5,954	5,954	-0-
Chardan Capital Markets LLC ⁽⁹⁾	8,690	8,690	-0-
Daniel Nahon ⁽¹⁰⁾	170,000	119,085	50,915
EarlyBirdCapital, Inc. ⁽¹¹⁾	10,000	10,000	-0-
Ed Chaplin and Christine Chaplin ⁽¹²⁾	9,922	9,922	-0-
Hudson Bay Master Fund Ltd ⁽¹³⁾	665,000	665,000	-0-
I-Bankers Securities Inc. ⁽¹⁴⁾	8,690	8,690	-0-
Intracoastal Capital, LLC ⁽¹⁵⁾	606,500	606,500	-0-
Iroquois Capital Investment Group LLC ⁽¹⁶⁾	31,583	31,583	-0-
Iroquois Master Fund Ltd. ⁽¹⁷⁾	523,417	523,417	-0-
Kingsbrook Opportunities Master Fund LP ⁽¹⁸⁾	366,527	366,527	-0-
Ladenburg Thalmann & Co. Inc. ⁽¹⁹⁾	162,786	62,786	100,000
Nomis Bay Ltd. ⁽²⁰⁾	378,000	378,000	-0-

- (1) The shares of common stock being offered by the selling stockholder pursuant to this prospectus consist of 16,672 shares that were issued to the selling stockholder upon the conversion of the Bridge Notes. The address for the selling stockholder is 99 Holland Avenue, Suite 101, Ottawa, Ontario Canada K1Y 0Y1, Attn: Sebastien Charles, President.
- (2) Represents 63,658 shares of common stock issuable to the selling stockholder upon exercise of the AGP Warrants. The address for the selling stockholder is 590 Madison Avenue, 28th Floor, New York, New York, Attn: Thomas Higgins.
- (3) The shares of common stock to be sold pursuant to this prospectus includes shares issuable upon the exercise of warrants (i) issued pursuant to the February SPA to purchase up to 200,000 shares of common stock, (ii) issued pursuant to the August SPA to purchase up to 150,000 shares of common stock, and (iii) issued pursuant to the Alpha Settlement Agreement to purchase up to 25,000 shares of common stock. The address for the selling stockholder is Lettstrasse 32, Vaduz 9490, Liechtenstein. Nicola Feuerstein, a Director of the selling stockholder, holds voting and dispositive power over the securities held by the selling stockholder.
- (4) The shares of common stock to be sold pursuant to this prospectus includes shares issuable upon the exercise of warrants (i) issued pursuant to the February SPA to purchase up to 240,000 shares of common stock and (ii) issued pursuant to the August SPA to purchase up to 275,000 shares of common stock. Ayrton Capital LLC (“Ayrton Capital”), the investment manager to Alto Opportunity Master Fund, SPC — Segregated Master Portfolio B (“Master Fund”), has discretionary authority to vote and dispose of the shares held by Master Fund and may be deemed to be the beneficial owner of these shares. Waqas Khatri, in his capacity as Managing Member of Ayrton Capital, may also be deemed to have investment discretion and voting power over the shares held by Master Fund. Ayrton Capital and Mr. Khatri each disclaim any beneficial ownership of these shares. The address of Ayrton Capital is 55 Post Road West, 2nd Floor, Westport, CT 06880.
- (5) The shares of common stock to be sold pursuant to this prospectus includes shares issuable upon the exercise of warrants (i) issued pursuant to the February SPA to purchase up to 316,941 shares of common stock and (ii) issued pursuant to the August SPA to purchase up to 177,192 shares of common stock. The address for the selling stockholder is c/o Boothbay Fund Management, LLC, 140 East 45th Street, 14th Floor, New York, NY 10017. Boothbay Absolute Return Strategies, LP, a Delaware limited partnership (“BBARS”), is managed by Boothbay Fund Management, LLC, a Delaware limited liability company (“Boothbay”). Boothbay, in its capacity as the investment manager of BBARS, has the power to vote and the power

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- to direct the disposition of all securities held by BBARS. Ari Glass is the Managing Member of Boothbay. Each of BBARS, Boothbay and Mr. Glass disclaim beneficial ownership of these securities, except to the extent of any pecuniary interest therein.
- (6) The shares of common stock to be sold pursuant to this prospectus includes shares issuable upon the exercise of warrants (i) issued pursuant to the February SPA to purchase up to 161,532 shares of common stock and (ii) issued pursuant to the August SPA to purchase up to 90,308 shares of common stock. The address for the selling stockholder is c/o Boothbay Fund Management, LLC, 140 East 45th Street, 14th Floor, New York, NY 10017. Boothbay Diversified Alpha Master Fund LP, a Cayman Islands limited partnership (“BBDAMF”), is managed by Boothbay Fund Management, LLC, a Delaware limited liability company (“Boothbay”). Boothbay, in its capacity as the investment manager of BBDAMF, has the power to vote and the power to direct the disposition of all securities held by BBDAMF. Ari Glass is the Managing Member of Boothbay. Each of BBDAMF, Boothbay and Mr. Glass disclaim beneficial ownership of these securities, except to the extent of any pecuniary interest therein.
 - (7) The shares of common stock to be sold pursuant to this prospectus includes shares issuable upon the exercise of warrants (i) issued pursuant to the February SPA to purchase up to 122,000 shares of common stock and (ii) issued pursuant to the August SPA to purchase up to 130,000 shares of common stock. Murchinson Ltd. (“Murchinson”), as sub-advisor to BPY Limited, has voting and investment power with respect to these shares. Marc Bistricher, in his capacity as CEO of Murchinson, may also be deemed to have investment discretion and voting power over the shares held by BPY Limited. Each of Mr. Bistricher and Murchinson disclaims any beneficial ownership of these shares except of any pecuniary interests therein. The principal business address of Murchinson Ltd. 400-145 Adelaide Street West, Toronto, ON, M5H4E5
 - (8) The shares of common stock being offered by the selling stockholder pursuant to this prospectus consist of 5,954 shares that were issued to the selling stockholder upon the conversion of the Bridge Notes. The address for the selling stockholder is 99 Holland Avenue, Suite 101, Ottawa, Ontario Canada K1Y 0Y1, Attn: Sebastien Charles, Co-President.
 - (9) The shares of common stock being offered by the selling stockholder pursuant to this prospectus consist of: (i) 5,431 shares that were included in the units that we issued to the selling stockholder in a private placement that closed in connection with our IPO; (ii) 543 shares that were issued to the selling stockholder upon the conversion of 5,432 rights that were included in the units that we issued to the selling stockholder in a private placement that closed in connection with our IPO, which rights converted upon the Closing; and (iii) 2,716 shares are shares that are issuable to the selling stockholder upon the exercise of warrants to purchase shares of our common stock at an exercise price of \$11.50 per whole share that were included in the units what we issued to the selling stockholder in a private placement that closed in connection with our IPO. The address for the selling stockholder is 17 State Street, Suite 2100, New York, NY 10004. Steven Urbach holds voting and dispositive power over the securities held by the selling stockholder.
 - (10) The shares of common stock being offered by the selling stockholder pursuant to this prospectus consist of 119,085 shares that were issued to the selling stockholder upon the conversion of the Bridge Notes. The address for the selling stockholder is 130 Willingdon Road, Ottawa, Ontario, Canada K1M 2G1.
 - (11) The address for the selling stockholder is 366 Madison Avenue, Suite 800, New York, New York 10017.
 - (12) The shares of common stock being offered by the selling stockholder pursuant to this prospectus consist of 9,922 shares that were issued to the selling stockholder upon the conversion of the Bridge Notes. The address for the selling stockholder is 1739 Ortona Avenue, Ottawa, Ontario, Canada, K2C 1W8.
 - (13) The shares of common stock to be sold pursuant to this prospectus includes shares issuable upon the exercise of warrants (i) issued pursuant to the February SPA to purchase up to 290,000 shares of common stock and (ii) issued pursuant to the August SPA to purchase up to 375,000 shares of common stock. The address for the selling stockholder is c/o Hudson Bay Capital Management LP, 777 Third Avenue, 30th Floor, New York, NY 10017. Hudson Bay Capital Management LP, the investment manager of Hudson Bay Master Fund Ltd., has voting and investment power over these securities. Sander Gerber is the managing member of Hudson Bay Capital GP LLC, which is the general partner of Hudson Bay Capital Management LP. Each of Hudson Bay Master Fund Ltd. and Sander Gerber disclaims beneficial ownership over these securities.
 - (14) The shares of common stock being offered by the selling stockholder pursuant to this prospectus consist of: (i) 5,431 shares that were included in the units that we issued to the selling stockholder in a private placement that closed in connection with our IPO; (ii) 543 shares that were issued to the selling stockholder upon the conversion of 5,431 rights that were included in the units that we issued to the selling stockholder in a private placement that closed in connection with our IPO, which rights converted upon the Closing; and (iii) 2,716 shares are shares that are issuable to the selling stockholder upon the exercise of warrants to purchase shares of our common stock at an exercise price of \$11.50 per whole share that were included in the units what we issued to the selling stockholder in a private placement that closed in connection with our IPO. The address for the selling stockholder is 1208 Shady Lane N, Keller, TX 76248, Attn: Shelley Leonard.
 - (15) The shares of common stock to be sold pursuant to this prospectus includes shares issuable upon the exercise of warrants (i) issued pursuant to the February SPA to purchase up to 281,500 shares of common stock and (ii) issued pursuant to the August SPA to purchase up to 325,000 shares of common stock. The address for the selling stockholder is 245 Palm Trail, Delray Beach, FL 33483. Mitchell P. Kopin and Daniel B. Asher, each of whom are managers of Intracoastal Capital, LLC, have shared voting control and investment discretion over the securities reported herein that are held by Intracoastal Capital, LLC. As a result, each of Mr. Kopin and Mr. Asher may be deemed to have beneficial ownership of the securities reported herein that are held by Intracoastal Capital, LLC.

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- (16) The shares of common stock to be sold pursuant to this prospectus includes shares issuable upon the exercise of warrants issued pursuant to the August SPA to purchase up to 31,583 shares of common stock. The address for the selling stockholder is 125 Park Avenue, 25th Floor, New York, NY 10017. Richard Abbe holds voting and dispositive power over the securities held by the selling stockholder.
- (17) The shares of common stock to be sold pursuant to this prospectus includes shares issuable upon the exercise of warrants (i) issued pursuant to the February SPA to purchase up to 280,000 shares of common stock and (ii) issued pursuant to the August SPA to purchase up to 243,417 shares of common stock. The address for the selling stockholder is 125 Park Avenue, 25th Floor, New York, NY 10017. Richard Abbe holds voting and dispositive power over the securities held by the selling stockholder.
- (18) The shares of common stock to be sold pursuant to this prospectus includes shares issuable upon the exercise of warrants (i) issued pursuant to the February SPA to purchase up to 184,027 shares of common stock and (ii) issued pursuant to the August SPA to purchase up to 182,500 shares of common stock. The address for the selling stockholder is c/o Kingsbrook Partners LP, 689 Fifth Avenue, 12th Floor, New York, NY 10022. Kingsbrook Partners LP (“Kingsbrook Partners”) is the investment manager of Kingsbrook Opportunities Master Fund LP (“Kingsbrook Opportunities”) and consequently has voting control and investment discretion over securities held by Kingsbrook Opportunities. Kingsbrook Opportunities GP LLC (“Opportunities GP”) is the general partner of Kingsbrook Opportunities and may be considered the beneficial owner of any securities deemed to be beneficially owned by Kingsbrook Opportunities. KB GP LLC (“GP LLC”) is the general partner of Kingsbrook Partners and may be considered the beneficial owner of any securities deemed to be beneficially owned by Kingsbrook Partners. Ari J. Storch, Adam J. Chill and Scott M. Wallace are the sole managing members of Opportunities GP and GP LLC and as a result may be considered beneficial owners of any securities deemed beneficially owned by Opportunities GP and GP LLC. Each of Kingsbrook Partners, Opportunities GP, GP LLC and Messrs. Storch, Chill and Wallace disclaim beneficial ownership of these securities.
- (19) The shares of common stock being offered by the selling stockholder pursuant to this prospectus consist of: (i) 57,062 shares that were included in the units that we issued to the selling stockholder in a private placement that closed in connection with our IPO; (ii) 5,706 shares that were issued to the selling stockholder upon the conversion of 57,062 rights that were included in the units that we issued to the selling stockholder in a private placement that closed in connection with our IPO, which rights converted upon the Closing of the Business Combination; and (iii) 28,531 shares are shares that are issuable to the selling stockholder upon the exercise of warrants to purchase shares of our common stock at an exercise price of \$11.50 per whole share that were included in the units what we issued to the selling stockholder in a private placement that closed in connection with our IPO. The address for the selling stockholder is 277 Park Avenue, New York, NY 10172, Attn: Steve Kaplan. The address for the selling stockholder is 277 Park Avenue, New York, NY 10172, Attn: Steve Kaplan.
- (20) The shares of common stock to be sold pursuant to this prospectus includes shares issuable upon the exercise of warrants (i) issued pursuant to the February SPA to purchase up to 183,000 shares of common stock and (ii) issued pursuant to the August SPA to purchase up to 195,000 shares of common stock. Murchinson, as sub-advisor to Nomis Bay Ltd., has voting and investment power with respect to these shares. Marc Bistricher, in his capacity as CEO of Murchinson, may also be deemed to have investment discretion and voting power over the shares held by Nomis Bay Ltd. Each of Mr. Bistricher and Murchinson disclaims any beneficial ownership of these shares except of any pecuniary interests therein. The principal business address of Murchinson Ltd. 400-145 Adelaide Street West, Toronto, ON, M5H4E5.

PLAN OF DISTRIBUTION

We are registering the issuance of up to an aggregate of 6,001,250 shares of common stock upon the exercise of the Public Warrants. We are also registering the resale by the selling stockholders of up to an aggregate of 4,770,008 shares of common stock. Each selling stockholder and any of their pledgees, assignees, transferees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on Nasdaq or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A selling stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the selling stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell securities under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction a markup or markdown in compliance with FINRA Rule 2121.

In connection with the sale of the securities or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The selling stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each selling stockholder has informed us that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

We are required to pay certain fees and expenses incurred by us incident to the registration of the securities. We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

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We agreed to keep this prospectus effective until the earlier of (i) the date on which the securities may be resold by the selling stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for our company to be in compliance with the current public information requirement under Rule 144 under the Securities Act or any other rule of similar effect or (ii) all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the selling stockholders or any other person. We will make copies of this prospectus available to the selling stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

DESCRIPTION OF SECURITIES

The following summary of the material terms of our securities is not intended to be a complete summary of the rights and preferences of such securities. We urge you to read our second amended and restated certificate of incorporation in its entirety for a complete description of the rights and preferences of our securities.

General

We are authorized to issue 100,000,000 shares of our common stock and 5,000,000 shares of our preferred stock, par value \$0.0001. As of May 4, 2022, 34,087,244 shares of our common stock were outstanding. As of May 4, 2022, 1,000,000 shares of preferred stock have been designated as Series A Convertible Preferred Stock (of which none are outstanding, and of which 1,000,000 shares were previously issued and subsequently converted into an aggregate of 1,619,144 shares of common stock in 2020), one share of preferred stock has been designated as a Class C Special Voting Share, of which one is outstanding, and one share of preferred stock has been designated as a Class K Special Voting Share, of which one is outstanding. The following description summarizes the material terms of our securities. Because it is only a summary, it may not contain all the information that is important to you.

Common Stock

Except as otherwise required by law or as otherwise provided in any certificate of designation for any series of preferred stock, the holders of common stock possess all voting power for the election of our directors and all other matters requiring stockholder action and will at all times vote together as one class on all matters submitted to a vote of the stockholders of our company. Holders of common stock are entitled to one vote per share on matters to be voted on by stockholders and do not have the right to cumulate votes in the election of directors.

Holders of common stock will be entitled to receive dividends and other distributions, if any, in amounts declared from time to time by our Board in its discretion out of funds legally available therefor and shall share equally on a per share basis in these dividends and distributions.

In the event of our voluntary or involuntary liquidation, dissolution, distribution of assets or winding-up, the holders of the common stock will be entitled to receive an equal amount per share of all of our assets of whatever kind available for distribution to stockholders, after the rights of the holders of the preferred stock, if any, have been satisfied.

Our stockholders have no preemptive or other subscription rights and there are no sinking fund or redemption provisions applicable to our common stock.

Our Board is divided into two classes, with only one class of directors being elected in each year and each class generally serving a two-year term.

Preferred Stock

Our second amended and restated certificate of incorporation provides that shares of preferred stock may be issued from time to time in one or more series. Our Board will be authorized to fix the voting rights, if any, designations, powers, preferences, the relative, participating, optional or other special rights and any qualifications, limitations and restrictions thereof, applicable to the shares of each series. Our Board will be able to, without stockholder approval, issue preferred stock with voting and other rights that could adversely affect the voting power and other rights of the holders of the common stock and could have anti-takeover effects. The ability of our Board to issue preferred stock without stockholder approval could have the effect of delaying, deferring or preventing a change of control of the Company or the removal of existing management. We have two shares of preferred stock outstanding as of the date of this prospectus, as described below. Although we do not currently intend to issue any additional shares of preferred stock, other than as described below, we cannot assure you that we will not do so in the future. No shares of preferred stock are being issued or registered in this offering.

Series A Convertible Preferred Stock

In connection with the Securities Purchase Agreement that we entered into on or about June 12, 2020 with the investors signatory thereto (the "June SPA"), we agreed that, upon the second closing pursuant to the June SPA, upon certain conditions being satisfied, we would issue to one of the investors shares of a newly-designated Series A

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Convertible Preferred Stock of our company (the “Series A Stock”) for an aggregate purchase price of \$3,000,000. Dividends would be payable on the Series A Stock at a rate of 10% per annum. The Series A Stock would be convertible into common stock at a conversion price of \$5.28 per share, subject to adjustment. Upon any conversion, a Make-Whole Amount (as defined in the designations of the Series A Stock) would be due with respect to each share of Series A Stock converted. At any time following the three month anniversary of the Closing, the holder of the Series A Stock had the right to force us to redeem all or any portion of the Series A Stock then owned by the holder in cash.

Beginning on the eleventh trading day following the Closing, if certain conditions were met, including, but not limited to, the closing sale price of our common stock exceeded \$6.00 throughout a certain measuring period, certain equity conditions were satisfied, the daily average trading volume for the prior five consecutive trading days exceeded \$80,000 per trading day, and the shares of our common stock subject to the conversion right were the subject of a then effective registration statement, we would have the right to require the holder to convert an amount of the purchase price of the Series A Stock not to exceed \$1,000,000 in the aggregate and not to exceed \$100,000 during any five consecutive trading days (but in no event more than the lesser of (I) two times the daily average trading volume for the prior ten consecutive trading days and (II) all of the conversion amount remaining with respect to the outstanding shares of Series A Stock), into freely tradeable shares of common stock at the conversion price then in effect.

We have designated a total of 1,000,000 shares of preferred stock as Series A Stock, of which none are outstanding as of the date of this prospectus, and of which 1,000,000 shares were previously issued and subsequently converted into an aggregate of 1,619,144 shares of our common stock.

Special Voting Shares

We have two outstanding classes of preferred stock, designated as our Class C Special Voting Shares and our Class K Special Voting Shares (collectively, the “Special Voting Shares”), with the rights and preferences specified below.

The Special Voting Shares have a par value of \$0.0001 per share. The rights and preferences of each Special Voting Share consists of the following:

- The right to vote in all circumstances in which our common stock have the right to vote, with the common stock as one class;
- The Special Voting Shares entitle the holder, Odyssey Trust Company (the Trustee), to an aggregate number of votes equal to the number of shares of common stock that were issuable to the holders of the previously outstanding shares of CannBioRex Purchaseco ULC and/or Katexco Purchaseco ULC, Canadian subsidiaries of 180 (the “Exchangeable Shares”);
- The holder of the Special Voting Shares (and, indirectly, the holders of the Exchangeable Shares) has the same rights as the holders of the common stock as to notices, reports, financial statements and attendance at all stockholder meetings;
- No entitlement to dividends;
- The holder of the Special Voting Shares is not entitled to any portion of any related distribution upon windup, dissolution or liquidation of our company; and
- We may cancel the Special Voting Shares when there are no Exchangeable Shares outstanding and no option or other commitment of CannBioRex Purchaseco ULC and Katexco Purchaseco ULC which could require either CannBioRex Purchaseco ULC and Katexco Purchaseco ULC to issue more Exchangeable Shares.

As noted above, the holders of the Exchangeable Shares, through the applicable Special Voting Share, have voting rights and other attributes corresponding to our common stock. The Exchangeable Shares provide an opportunity for certain former Canadian resident holders of CBR Pharma or Katexco securities to obtain a deferral of taxable capital gains for Canadian income tax purposes in connection with the Reorganization.

Warrants

February PIPE Warrants

See the section entitled see “Recent Financing and Settlement Transactions — February 2021 Offering” in the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” above for a summary of the material terms of the February PIPE Warrants that were issued pursuant to the February SPA. The resale of the common stock issuable upon the exercise thereof is being registered by the registration statement of which this prospectus forms a part.

August PIPE Warrants

See the section entitled see “Recent Financing and Settlement Transactions — August 2021 Offering” in the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” above for a summary of the material terms of the August PIPE Warrants that were issued pursuant to the August SPA. The resale of the common stock issuable upon the exercise thereof is being registered by the registration statement of which this prospectus forms a part.

Alpha Settlement Warrants

See the section entitled see “Recent Financing and Settlement Transactions — Alpha Settlement Agreement” in the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” above for a summary of the material terms of the Alpha Settlement Warrants that were issued pursuant to the Alpha Settlement Agreement. The resale of the common stock issuable upon the exercise thereof is being registered by the registration statement of which this prospectus forms a part.

Alliance Global Warrants

See the section entitled see “Recent Financing and Settlement Transactions — Alliance Global Warrants” in the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” above for a summary of the material terms of the AGP Warrants that were issued in connection with the AGP Warrant Liability. The resale of the common stock issuable upon the exercise thereof is being registered by the registration statement of which this prospectus forms a part.

Public Warrants

Each Public Warrant entitles the registered holder to purchase one-half of one share of our common stock at a price of \$5.75 per half share, subject to adjustment as discussed below, at any time commencing on the later of 12 months from the closing of our IPO or 30 days after the completion of the Business Combination. If a Public Warrant holder holds two warrants, such Public Warrants will be exercisable for one share of our common stock. The Public Warrants must be exercised for whole shares. The Public Warrants will expire five years after the completion of the Business Combination, at 5:00 p.m., New York City time, or earlier upon redemption or liquidation.

We will not be obligated to deliver any shares of common stock pursuant to the exercise of a Public Warrant and will have no obligation to settle such warrant exercise unless a registration statement under the Securities Act with respect to the shares of common stock underlying the Public Warrants is then effective and a prospectus relating thereto is current, subject to our satisfying our obligations described below with respect to registration. No Public Warrant will be exercisable for cash or on a cashless basis, and we will not be obligated to issue any shares to holders seeking to exercise their Public Warrants, unless the issuance of the shares upon such exercise is registered or qualified under the securities laws of the state of the exercising holder, unless an exemption is available. In the event that the conditions in the two immediately preceding sentences are not satisfied with respect to a Public Warrant, the holder of such Public Warrant will not be entitled to exercise such Public Warrant and such Public Warrant may have no value and expire worthless. In no event will we be required to net cash settle any Public Warrant. In the event that a registration statement is not effective for the exercised Public Warrants, the purchaser of a unit containing such Public Warrant will have paid the full purchase price for the unit solely for the share of common stock underlying such unit.

We have agreed that as soon as practicable, but in no event later than thirty (30) days, after the closing of our initial business combination, we will use our best efforts to file with the SEC a registration statement for the

registration, under the Securities Act, of the shares of common stock issuable upon exercise of the Public Warrants. We will use our best efforts to cause the same to become effective within 90 days after the closing of our initial business combination and to maintain the effectiveness of such registration statement, and a current prospectus relating thereto, until the expiration of the Public Warrant in accordance with the provisions of the warrant agreement. Notwithstanding the above, if our common stock is at the time of any exercise of a Public Warrant not listed on a national securities exchange such that it satisfies the definition of a “covered security” under Section 18(b)(1) of the Securities Act, we may, at our option, require holders of Public Warrants who exercise their Public Warrants to do so on a “cashless basis” in accordance with Section 3(a)(9) of the Securities Act and, in the event we so elect, we will not be required to file or maintain in effect a registration statement or register or qualify the shares under blue sky laws, and in the event we do not so elect, we will use our best efforts to register or qualify the shares under the blue sky laws of the state of residence in those states in which the Public Warrants were initially offered by us in this offering.

Once the Public Warrants become exercisable, we may call the Public Warrants for redemption:

- in whole and not in part;
- at a price of \$0.01 per Public Warrant;
- upon not less than 30 days’ prior written notice of redemption (the “30-day redemption period”) to each Public Warrant holder; and
- if, and only if, the reported last sale price of our common stock equals or exceeds \$18.00 per share for any 20 trading days within a 30-trading day period ending on the third trading day prior to the date we send the notice of redemption to the Public Warrant holders.

If and when the Public Warrants become redeemable by us, we may not exercise our redemption right if the issuance of shares of common stock upon exercise of the Public Warrants is not exempt from registration or qualification under applicable state blue sky laws or we are unable to effect such registration or qualification. We will use our best efforts to register or qualify the shares of common stock under the blue sky laws of the state of residence in those states in which the Public Warrants were initially offered by us.

We have established the last of the redemption criterion discussed above to prevent a redemption call unless there is at the time of the call a significant premium to the Public Warrant exercise price. If the foregoing conditions are satisfied and we issue a notice of redemption of the Public Warrants, each Public Warrant holder will be entitled to exercise his, her or its Public Warrant prior to the scheduled redemption date. However, the price of the common stock may fall below the \$18.00 redemption trigger price as well as the \$11.50 Public Warrant exercise price (for whole shares) after the redemption notice is issued.

If we call the Public Warrants for redemption as described above, our management will have the option to require any holder that wishes to exercise his, her or its Public Warrant to do so on a “cashless basis.” In determining whether to require all holders to exercise their Public Warrants on a “cashless basis,” our management will consider, among other factors, our cash position, the number of Public Warrants that are outstanding and the dilutive effect on our stockholders of issuing the maximum number of shares of common stock issuable upon the exercise of our Public Warrants. If our management takes advantage of this option, all holders of Public Warrants would pay the exercise price by surrendering their Public Warrants for that number of shares of common stock equal to the quotient obtained by dividing (x) the product of the number of shares of common stock underlying the Public Warrants, multiplied by the difference between the exercise price of the Public Warrants and the “fair market value” (defined below) by (y) the fair market value. The “fair market value” shall mean the average reported last sale price of the common stock for the 10 trading days ending on the third trading day prior to the date on which the notice of redemption is sent to the holders of Public Warrants. If our management takes advantage of this option, the notice of redemption will contain the information necessary to calculate the number of shares of common stock to be received upon exercise of the Public Warrants, including the “fair market value” in such case. Requiring a cashless exercise in this manner will reduce the number of shares to be issued and thereby lessen the dilutive effect of a Public Warrant redemption. We believe this feature is an attractive option to us if we do not need the cash from the exercise of the Public Warrants after our initial business combination. If we call our Public Warrants for redemption and our management does not take advantage of this option, the Sponsor and its permitted transferees would still be entitled to exercise their private placement Public

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Warrants contained in the private placement units for cash or on a cashless basis using the same formula described above that other Public Warrant holders would have been required to use had all Public Warrant holders been required to exercise their Public Warrants on a cashless basis, as described in more detail below.

A holder of a Public Warrant may notify us in writing in the event it elects to be subject to a requirement that such holder will not have the right to exercise such Public Warrant, to the extent that after giving effect to such exercise, such person (together with such person's affiliates), to the warrant agent's actual knowledge, would beneficially own in excess of 9.8% (or such other amount as a holder may specify) of the shares of common stock outstanding immediately after giving effect to such exercise.

If the number of outstanding shares of common stock is increased by a stock dividend payable in shares of common stock, or by a split-up of shares of common stock or other similar event, then, on the effective date of such stock dividend, split-up or similar event, the number of shares of common stock issuable on exercise of each Public Warrant will be increased in proportion to such increase in the outstanding shares of common stock. A rights offering to holders of common stock entitling holders to purchase shares of common stock at a price less than the fair market value will be deemed a stock dividend of a number of shares of common stock equal to the product of (i) the number of shares of common stock actually sold in such rights offering (or issuable under any other equity securities sold in such rights offering that are convertible into or exercisable for common stock) multiplied by (ii) one (1) minus the quotient of (x) the price per share of common stock paid in such rights offering divided by (y) the fair market value. For these purposes (i) if the rights offering is for securities convertible into or exercisable for common stock, in determining the price payable for common stock, there will be taken into account any consideration received for such rights, as well as any additional amount payable upon exercise or conversion and (ii) fair market value means the volume weighted average price of common stock as reported during the ten (10) trading day period ending on the trading day prior to the first date on which the shares of common stock trade on the applicable exchange or in the applicable market, regular way, without the right to receive such rights.

In addition, if we, at any time while the Public Warrants are outstanding and unexpired, pay a dividend or make a distribution in cash, securities or other assets to the holders of common stock on account of such shares of common stock (or other shares of our capital stock into which the Public Warrants are convertible), other than (a) as described above or (b) certain ordinary cash dividends, then the Public Warrant exercise price will be decreased, effective immediately after the effective date of such event, by the amount of cash and/or the fair market value of any securities or other assets paid on each share of common stock in respect of such event.

If the number of outstanding shares of our common stock is decreased by a consolidation, combination, reverse stock split or reclassification of shares of common stock or other similar event, then, on the effective date of such consolidation, combination, reverse stock split, reclassification or similar event, the number of shares of common stock issuable on exercise of each Public Warrant will be decreased in proportion to such decrease in outstanding shares of common stock.

Whenever the number of shares of common stock purchasable upon the exercise of the Public Warrants is adjusted, as described above, the Public Warrant exercise price will be adjusted by multiplying the Public Warrant exercise price immediately prior to such adjustment by a fraction (x) the numerator of which will be the number of shares of common stock purchasable upon the exercise of the Public Warrants immediately prior to such adjustment, and (y) the denominator of which will be the number of shares of common stock so purchasable immediately thereafter.

In case of any reclassification or reorganization of the outstanding shares of common stock (other than those described above or that solely affects the par value of such shares of common stock), or in the case of any merger or consolidation of us with or into another corporation (other than a consolidation or merger in which we are the continuing corporation and that does not result in any reclassification or reorganization of our outstanding shares of common stock), or in the case of any sale or conveyance to another corporation or entity of the assets or other property of us as an entirety or substantially as an entirety in connection with which we are dissolved, the holders of the Public Warrants will thereafter have the right to purchase and receive, upon the basis and upon the terms and conditions specified in the Public Warrants and in lieu of the shares of our common stock immediately theretofore purchasable and receivable upon the exercise of the rights represented thereby, the kind and amount of shares of stock or other securities or property (including cash) receivable upon such reclassification, reorganization, merger or consolidation, or upon a dissolution following any such sale or transfer, that the holder of the Public Warrants would have received if such holder had exercised their Public Warrants immediately prior to such event. However, if such holders were entitled to exercise a right of election as to the kind or amount of securities, cash or other assets receivable upon such

consolidation or merger, then the kind and amount of securities, cash or other assets for which each Public Warrant will become exercisable will be deemed to be the weighted average of the kind and amount received per share by such holders in such consolidation or merger that affirmatively make such election, and if a tender, exchange or redemption offer has been made to and accepted by such holders (other than a tender, exchange or redemption offer made by our company in connection with redemption rights held by stockholders of our company as provided for in our amended and restated certificate of incorporation) under circumstances in which, upon completion of such tender or exchange offer, the maker thereof, together with members of any group (within the meaning of Rule 13d-5(b)(1) under the Exchange Act) of which such maker is a part, and together with any affiliate or associate of such maker (within the meaning of Rule 12b-2 under the Exchange Act) and any members of any such group of which any such affiliate or associate is a part, own beneficially (within the meaning of Rule 13d-3 under the Exchange Act) more than 50% of the outstanding shares of common stock, the holder of a Public Warrant will be entitled to receive the highest amount of cash, securities or other property to which such holder would actually have been entitled as a stockholder if such Public Warrant holder had exercised the Public Warrant prior to the expiration of such tender or exchange offer, accepted such offer and all of the common stock held by such holder had been purchased pursuant to such tender or exchange offer, subject to adjustments (from and after the consummation of such tender or exchange offer) as nearly equivalent as possible to the adjustments provided for in the warrant agreement. Additionally, if less than 70% of the consideration receivable by the holders of common stock in such a transaction is payable in the form of common stock in the successor entity that is listed for trading on a national securities exchange or is quoted in an established over-the-counter market, or is to be so listed for trading or quoted immediately following such event, and if the registered holder of the Public Warrant properly exercises the Public Warrant within thirty days following public disclosure of such transaction, the Public Warrant exercise price will be reduced as specified in the warrant agreement based on the per share consideration minus Black-Scholes Public Warrant Value (as defined in the warrant agreement) of the Public Warrant in order to determine and realize the option value component of the Public Warrant. This formula is to compensate the Public Warrant holder for the loss of the option value portion of the Public Warrant value due to the requirement that the Public Warrant holder exercise the Public Warrant within 30 days of the event. The Black-Scholes model is an accepted pricing model for estimating fair market value where no quoted market price for an instrument is available.

The Public Warrants were issued in registered form under a warrant agreement between Continental Stock Transfer & Trust Company, as warrant agent, and us. The warrant agreement provides that the terms of the Public Warrants may be amended without the consent of any holder to cure any ambiguity or correct any defective provision, but requires the approval by the holders of at least 65% of the then outstanding Public Warrants to make any change that adversely affects the interests of the registered holders of Public Warrants.

The Public Warrants may be exercised upon surrender of the warrant certificate on or prior to the expiration date at the offices of the warrant agent, with the exercise form on the reverse side of the warrant certificate completed and executed as indicated, accompanied by full payment of the exercise price (or on a cashless basis, if applicable), by certified or official bank check payable to us, for the number of Public Warrants being exercised. The Public Warrant holders do not have the rights or privileges of holders of common stock and any voting rights until they exercise their Public Warrants and receive shares of common stock. After the issuance of shares of common stock upon exercise of the Public Warrants, each holder will be entitled to one vote for each share held of record on all matters to be voted on by stockholders.

Public Warrants may be exercised only for a whole number of shares of common stock. No fractional shares will be issued upon exercise of the Public Warrants. If, upon exercise of the Public Warrants, a holder would be entitled to receive a fractional interest in a share, we will, upon exercise, round down to the nearest whole number the number of shares of common stock to be issued to the Public Warrant holder. As a result, Public Warrant holders not purchasing an even number of Public Warrants must sell any odd number of Public Warrants in order to obtain full value from the fractional interest that will not be issued.

June 2017 Private Placement Warrants

The Private Placement Warrants contained in the private placement units (including the common stock issuable upon exercise of the Private Placement Warrants) will not be transferable, assignable or saleable until 30 days after the completion of the Business Combination (except, among other limited exceptions to our officers and directors and other persons or entities affiliated with the Sponsor) and they will not be redeemable by us so long as they are held by the Sponsor, the underwriters of our IPO or their permitted transferees. In addition, for as long as the private placement

warrants are held by the underwriters of our IPO or their designees or affiliates, they may not be exercised after five years from the effective date of the registration statement relating to our IPO. Otherwise, the Private Placement Warrants have terms and provisions that are identical to those of the Public Warrants that were sold as part of the units in our IPO. If the Private Placement Warrants are held by holders other than the Sponsor, the underwriters of our IPO or their permitted transferees, the Private Placement Warrants will be redeemable by us and exercisable by the holders on the same basis as the warrants included in the units that were sold in our IPO.

If holders of the Private Placement Warrants elect to exercise them on a cashless basis, they would pay the exercise price by surrendering his, her or its warrants for that number of shares of common stock equal to the quotient obtained by dividing (x) the product of the number of shares of common stock underlying the warrants, multiplied by the difference between the exercise price of the warrants and the “fair market value” by (y) the fair market value. The reason that we have agreed that these warrants will be exercisable on a cashless basis so long as they are held by the Sponsor and permitted transferees is because it was not known whether they will be affiliated with us following a business combination. If they remain affiliated with us, their ability to sell our securities in the open market will be significantly limited. We expect to have policies in place that prohibit insiders from selling our securities except during specific periods of time. Even during such periods of time when insiders will be permitted to sell our securities, an insider cannot trade in our securities if he or she is in possession of material non-public information. Accordingly, unlike public stockholders who could exercise their warrants and sell the shares of common stock received upon such exercise freely in the open market in order to recoup the cost of such exercise, the insiders could be significantly restricted from selling such securities. As a result, we believe that allowing the holders to exercise such warrants on a cashless basis is appropriate.

Our Transfer Agent and Warrant Agent

The transfer agent for our common stock and warrant agent for our warrants is Continental Stock Transfer & Trust Company. We have agreed to indemnify Continental Stock Transfer & Trust Company in its roles as transfer agent and warrant agent, its agents and each of its stockholders, directors, officers and employees against all liabilities, including judgments, costs and reasonable counsel fees that may arise out of acts performed or omitted for its activities in that capacity, except for any liability due to any gross negligence, willful misconduct or bad faith of the indemnified person or entity.

Certain Anti-Takeover Provisions of Delaware Law and our Charter and Bylaws

We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. This statute prevents certain Delaware corporations, under certain circumstances, from engaging in a “business combination” with:

- a stockholder who owns 15% or more of our outstanding voting stock (otherwise known as an “interested stockholder”);
- an affiliate of an interested stockholder; or
- an associate of an interested stockholder, for three years following the date that the stockholder became an interested stockholder.

A “business combination” includes a merger or sale of more than 10% of our assets. However, the above provisions of Section 203 do not apply if:

- our Board approves the transaction that made the stockholder an “interested stockholder,” prior to the date of the transaction;
- after the completion of the transaction that resulted in the stockholder becoming an interested stockholder, that stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, other than statutorily excluded shares of common stock; or
- on or subsequent to the date of the transaction, the business combination is approved by our Board and authorized at a meeting of our stockholders, and not by written consent, by an affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

Our second amended and restated certificate of incorporation provides that our Board will be classified into two classes of directors. As a result, in most circumstances, a person can gain control of our Board only by successfully engaging in a proxy contest at two or more annual meetings.

Our authorized but unissued common stock and preferred stock are available for future issuances without stockholder approval and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could render more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Securities Eligible for Future Sale

Rule 144

Pursuant to Rule 144, a person who has beneficially owned restricted shares of our common stock or warrants for at least six months would be entitled to sell their securities provided that (i) such person is not deemed to have been one of our affiliates at the time of, or at any time during the three months preceding, a sale and (ii) we are subject to the Exchange Act periodic reporting requirements for at least three months before the sale and have filed all required reports under Section 13 or 15(d) of the Exchange Act during the 12 months (or such shorter period as we were required to file reports) preceding the sale.

Persons who have beneficially owned restricted shares of our common stock or warrants for at least six months but who are our affiliates at the time of, or at any time during the three months preceding, a sale, would be subject to additional restrictions, by which such person would be entitled to sell within any three-month period only a number of securities that does not exceed the greater of:

- 1% of the total number of shares of common stock then outstanding; or
- the average weekly reported trading volume of the common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales by our affiliates under Rule 144 are also limited by manner of sale provisions and notice requirements and to the availability of current public information about us.

Restrictions on the Use of Rule 144 by Shell Companies or Former Shell Companies

Rule 144 is not available for the resale of securities initially issued by shell companies (other than business combination related shell companies) or issuers that have been at any time previously a shell company. However, Rule 144 also includes an important exception to this prohibition if the following conditions are met:

- the issuer of the securities that was formerly a shell company has ceased to be a shell company;
- the issuer of the securities is subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act;
- the issuer of the securities has filed all Exchange Act reports and material required to be filed, as applicable, during the preceding 12 months (or such shorter period that the issuer was required to file such reports and materials), other than Form 8-K reports; and
- at least one year has elapsed from the time that the issuer filed current Form 10 type information with the SEC reflecting its status as an entity that is not a shell company.

Registration Rights

Registration Rights of Sponsor and Underwriters

The holders of the founder shares and private placement units (and their component securities) and their permitted transferees are entitled to registration rights pursuant to a registration rights agreement signed on the effective date of our IPO. The holders of these securities and their permitted transferees are entitled to make up to three demands, excluding short form demands, that we register such securities. In addition, the holders and their permitted transferees have certain “piggy-back” registration rights with respect to registration statements filed subsequent to our

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completion of our initial business combination and rights to require us to register for resale such securities pursuant to Rule 415 under the Securities Act. Notwithstanding the foregoing, the underwriters may not exercise their demand and “piggy-back” registration rights after five (5) and seven (7) years after the effective date of the registration statement relating to our IPO and may not exercise their demand rights on more than one occasion. Further, the holders and their permitted transferees have certain “piggy-back” registration rights regarding the shares of our common stock issuable upon the conversion of the Convertible Sponsor Note with respect to the registration statement(s) that we may file pursuant to the Registration Rights Agreement that we entered into in connection with the June SPA.

Registration Rights of Private Placement Investors

Pursuant to the Registration Rights Agreement dated as of June 12, 2020 that we entered into with the investors signatory thereto in connection with the issuance by us to such investors of shares of our common stock, senior secured convertible promissory notes in the aggregate principal amount of \$3,601,966 and (solely with respect to one investor) shares of our Series A Convertible Preferred Stock pursuant to the June SPA, we agreed to register with the SEC the resale of the shares of common stock issued to such investors, as well as the shares of common stock issuable to such investors upon conversion of the senior secured convertible promissory notes and shares of Series A Stock issued to such investors.

Pursuant to the Registration Rights Agreement dated as of September 8, 2020 that we entered into with the investors signatory thereto in connection with the issuance by us to such investors of shares of our common stock and secured convertible promissory notes in the aggregate principal amount of \$1,111,111 pursuant to the September SPA, we agreed to register with the SEC the resale of the shares of common stock issued to such investors, as well as the shares of common stock issuable to such investors upon conversion of the secured convertible promissory notes issued to such investors.

Pursuant to Securities Purchase Agreements, dated January 3, 2020, that 180 Life Corp. entered into with the investors signatory thereto in connection with the issuance of unsecured convertible notes in the aggregate principal amount of \$332,500, 180 Life Corp. agreed to register with the SEC the resale of the shares of common stock issued to such investors, as well as the shares of common stock issuable to such investors upon conversion of the senior secured convertible promissory notes.

Pursuant to the Registration Rights Agreement, dated as of February 23, 2021, that we entered into with the investors signatory thereto in connection with the closing of the offering contemplated by the February SPA, we agreed to file a registration statement with the SEC to register the resale of the shares of common stock issued to such investors upon the closing of such offering, and the shares of common stock issuable upon exercise of the warrants issued to such investors upon the closing of such offering.

Pursuant to the Alpha Settlement Agreement, we agreed to file a registration statement with the SEC to register the resale of the 150,000 shares of our common stock that we issued to Alpha Capital Anstalt pursuant to the Alpha Settlement Agreement, as well as the resale of the 25,000 shares of our common stock issuable upon the exercise of the Alpha Settlement Warrant.

Pursuant to the Registration Rights Agreement, dated as of August 23, 2021, that we entered into with the investors signatory thereto in connection with the closing of the offering contemplated by the August SPA, we agreed to file a registration statement with the SEC to register the resale of the shares of common stock issued to such investors upon the closing of such offering, and the shares of common stock issuable upon exercise of the August PIPE Warrants.

Market Price of Common Stock

Our common stock and Public Warrants are currently listed on Nasdaq under the symbols “ATNF” and “ATNFW”, respectively. As of May 4, 2022, there were 68 holders of record of our common stock and 17 holders of record of our warrants.

LEGAL MATTERS

Certain legal matters relating to the validity of our common stock to be registered for resale hereunder will be passed upon for us by DLA Piper LLP (US), New York, New York.

EXPERTS

The audited consolidated balance sheets of 180 Life Sciences Corp. (f/k/a KBL Merger Corp. IV) as of December 31, 2021 and 2020, and the related consolidated statements of operations, changes in stockholders' equity and cash flows, for each of the two years in the period ended December 31, 2021, and the related notes included in this prospectus have been so included in reliance on a report audited by Marcum LLP, an independent registered public accounting firm, as set forth in their report thereon (which contains an explanatory paragraph relating to substantial doubt about the ability of 180 Life Sciences Corp. to continue as a going concern as described in Note 2 to the consolidated financial statements) appearing elsewhere herein and are included in reliance on such report given upon such firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement under the Securities Act that registers the distribution of the securities offered under this prospectus. The registration statement, including the attached exhibits and schedules, as well as any amendments thereto, contains additional relevant information about us and the securities. The rules and regulations of the SEC allow us to omit from this prospectus certain information included in the registration statement.

We file reports, proxy statements and other information with the SEC as required by the Exchange Act. You can read our SEC filings, including this prospectus, over the Internet at the SEC's website at <http://www.sec.gov>. Those filings are also available to the public on, or accessible through, our website under the heading "Investors — SEC Filings" at www.180lifesciences.com. The information contained on, or that may be accessed through, our website is not a part of, and is not incorporated into, this prospectus.

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
CONSOLIDATED FINANCIAL STATEMENTS AS OF DECEMBER 31, 2021 AND 2020

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of
180 Life Sciences Corp.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of 180 Life Sciences Corp. and Subsidiaries (the “Company”) as of December 31, 2021 and 2020, the related consolidated statements of operations and comprehensive loss, changes in stockholders’ equity and cash flows for each of the two years in the period ended December 31, 2021, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2021, in conformity with accounting principles generally accepted in the United States of America.

Explanatory Paragraph — Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As more fully described in Note 2 to the financial statements, the Company has a significant working capital deficiency, has incurred significant losses and needs to raise additional funds to meet its obligations and sustain its operations. These conditions raise substantial doubt about the Company’s ability to continue as a going concern. Management’s plans in regard to these matters are also described in Note 2. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

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) (the “PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. 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.

/s/ Marcum llp

Marcum llp

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

San Francisco, CA
March 30, 2022

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(Expressed in US Dollars)

	December 31, 2021	December 31, 2020
Assets		
Current Assets:		
Cash	\$ 8,224,508	\$ 2,108,544
Due from related parties	—	300,000
Prepaid expenses and other current assets	2,976,583	1,606,414
Total Current Assets	11,201,091	4,014,958
Intangible assets, net	1,948,913	2,047,818
In-process research and development	12,575,780	12,569,793
Goodwill	36,987,886	36,900,801
Total Assets	\$ 62,713,670	\$ 55,533,370
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable	\$ 586,611	\$ 8,529,259
Accounts payable – related parties	—	215,495
Accrued expenses	1,964,580	4,110,916
Accrued expenses – related parties	18,370	454,951
Loans payable – current portion	1,828,079	968,446
Loans payable – related parties	81,277	513,082
Convertible notes payable	—	1,916,195
Convertible notes payable – related parties	—	270,000
Derivative liabilities	15,220,367	4,442,970
Total Current Liabilities	19,699,284	21,421,314
Accrued issuable equity	—	43,095
Loans payable – non current portion	48,165	113,763
Deferred tax liability	3,643,526	3,668,329
Total Liabilities	23,390,975	25,246,501
Commitments and contingencies (Note 12)		
Stockholders' Equity:		
Preferred stock, \$0.0001 par value; 5,000,000 shares authorized; (see designations and shares authorized for Series A, Class C and Class K preferred stock)		
Class C Preferred Stock; 1 share authorized, issued and outstanding at December 31, 2021 and 2020	—	—
Class K Preferred Stock; 1 share authorized, issued and outstanding at December 31, 2021 and 2020	—	—
Common stock, \$0.0001 par value; 100,000,000 shares authorized; 34,035,925 and 26,171,225 shares issued and outstanding at December 31, 2021 and 2020, respectively	3,404	2,617
Additional paid-in capital	107,184,137	78,005,004
Accumulated other comprehensive income	817,440	636,886
Accumulated deficit	(68,682,286)	(48,357,638)
Total Stockholders' Equity	39,322,695	30,286,869
Total Liabilities and Stockholders' Equity	\$ 62,713,670	\$ 55,533,370

The accompanying notes are an integral part of these consolidated financial statements.

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(Expressed in US Dollars)

	For the Year Ended December 31,	
	2021	2020
Operating Expenses:		
Research and development	\$ 1,000,769	\$ 2,217,371
Research and development – related parties	2,947,536	75,633
General and administrative	11,230,118	3,169,260
General and administrative – related parties	462,580	185,848
Total Operating Expenses	<u>15,641,003</u>	<u>5,648,112</u>
Loss From Operations	<u>(15,641,003)</u>	<u>(5,648,112)</u>
Other (Expense) Income:		
Loss on sale and disposal of property and equipment	—	(37,174)
Gain on settlement of liabilities	926,829	—
Other income	(146,822)	15,334
Other income – related parties	—	240,000
Interest expense	(135,953)	(1,002,424)
Interest expense – related parties	(50,255)	(84,550)
Loss on extinguishment of convertible notes payable, net	(9,737)	(2,580,655)
Change in fair value of derivative liabilities	(4,677,388)	(1,816,309)
Change in fair value of accrued issuable equity	(9,405)	9,405
Offering costs allocated to warrant liabilities	(604,118)	—
Total Other Expense, Net	<u>(4,706,849)</u>	<u>(5,256,373)</u>
Loss Before Income Taxes	<u>(20,347,852)</u>	<u>(10,904,485)</u>
Income tax benefit	23,204	20,427
Net Loss	<u>(20,324,648)</u>	<u>(10,884,058)</u>
Deemed dividend related to the Series A Convertible Preferred Stock	—	(1,122,702)
Net Loss Attributable to Common Stockholders	<u>\$ (20,324,648)</u>	<u>\$ (12,006,760)</u>
Net Loss	<u>\$ (20,324,648)</u>	<u>\$ (10,884,058)</u>
Other Comprehensive Income:		
Foreign currency translation adjustments	180,554	484,083
Total Comprehensive Income	<u>\$ (20,144,094)</u>	<u>\$ (10,399,975)</u>
Basic and Diluted Net Loss per Common Share	<u>\$ (0.65)</u>	<u>\$ (0.66)</u>
Weighted Average Number of Common Shares Outstanding:	<u>31,355,439</u>	<u>18,154,056</u>

The accompanying notes are an integral part of these consolidated financial statements.

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
(Expressed in US Dollars)

For The Year Ended December 31, 2021						
	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance – January 1, 2021	26,171,225	\$ 2,617	\$ 78,005,004	\$ 636,886	\$ (48,357,638)	\$ 30,286,869
Shares issued upon conversion of KBL debt (Note 11)	467,123	47	1,941,078	—	—	1,941,125
Shares issued upon conversion of 180 debt (Note 11)	158,383	16	432,367	—	—	432,383
Shares issued in connection with the financing, net of financing costs (Note 9)	2,564,000	256	10,730,814	—	—	10,731,070
Offering costs allocated to warrant liabilities (Note 13)	—	—	604,118	—	—	604,118
Warrants issued in connection with private offering, reclassified to derivative liabilities (Note 9)	—	—	(7,294,836)	—	—	(7,294,836)
Shares issued upon exchange of common stock equivalents (Note 13)	1,745,054	174	(174)	—	—	—
Shares issued to settle accounts payable (Note 12)	225,000	23	1,973,227	—	—	1,973,250
Shares issued in connection with the August 2021 Offering, net of financing costs (Note 13)	2,500,000	250	13,879,750	—	—	13,880,000
Shares issued to settle convertible debt and derivative liabilities with Alpha Capital (Note 11)	150,000	15	1,060,485	—	—	1,060,500
Shares issued in connection with the repayment of related party loans and convertible notes (Note 13)	141,852	15	851,097	—	—	851,112
Stock based compensation (Note 13):						
Common stock	317,553	31	2,148,858	—	—	2,148,889
Options	—	—	2,852,309	—	—	2,852,309
Shares Cancelled	(404,265)	(40)	40	—	—	—
Comprehensive income (loss):						
Net loss	—	—	—	—	(20,324,648)	(20,324,648)
Other comprehensive income	—	—	—	180,554	—	180,554
Balance – December 31, 2021	<u>34,035,925</u>	<u>\$ 3,404</u>	<u>\$ 107,184,137</u>	<u>\$ 817,440</u>	<u>\$ (68,682,286)</u>	<u>\$ 39,322,695</u>

The accompanying notes are an integral part of these consolidated financial statements.

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY — (Continued)
(Expressed in US Dollars)

For The Year Ended December 31, 2020						
	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance – January 1, 2020	13,846,925	\$ 1,384	\$ 75,890,295	\$ 152,803	\$ (37,473,580)	\$ 38,570,902
Common stock issued for cash (Note 13)	12,292	1	72,499	—	—	72,500
Shares issued upon conversion of KBL debt (Note 11)	1,519,628	152	4,164,833	—	—	4,164,985
Shares issued upon conversion of 180 debt (Note 11)	482,894	48	2,117,270	—	—	2,117,318
Shares issued upon the conversion of the Series A convertible preferred stock (Note 13)	1,619,144	162	4,348,873	—	—	4,349,035
Shares issued upon exchange of common stock equivalents (Note 13)	1,521,157	153	(153)	—	—	—
Beneficial conversion feature on convertible debt issued (Note 11)	—	—	329,300	—	—	329,300
Deemed dividend on Series A convertible preferred stock (Note 13):						
Extinguishment loss	—	—	(565,659)	—	—	(565,659)
Make-whole dividend	—	—	(333,333)	—	—	(333,333)
Beneficial conversion feature	—	—	(223,710)	—	—	(223,710)
Stock based compensation (Note 13):						
Common stock	240,540	24	1,057,965	—	—	1,057,989
Options	—	—	7,798	—	—	7,798
Effect of reverse recapitalization, net of cash acquired (Note 4)	6,928,645	693	(8,860,974)	—	—	(8,860,281)
Comprehensive loss:						
Net loss	—	—	—	—	(10,884,058)	(10,884,058)
Other comprehensive loss	—	—	—	484,083	—	484,083
Balance – December 31, 2020	26,171,225	\$ 2,617	\$ 78,005,004	\$ 636,886	\$ (48,357,638)	\$ 30,286,869

The accompanying notes are an integral part of these consolidated financial statements.

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Expressed in US Dollars)

	For the Years Ended December 31,	
	2021	2020
Cash Flows From Operating Activities		
Net loss	\$ (20,324,648)	\$ (10,884,058)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation		
Shares issued for services	2,148,889	—
Amortization of stock options	2,852,309	1,118,286
Amortization of debt discount	—	356,179
Depreciation and amortization	109,947	125,333
Bad debt expense (recovery) – related parties	300,000	(1,699,825)
Gain on exchange rate transactions	—	4,760
Interest capitalized to debt principal	—	396,535
Gain on settlement of liabilities, net	(926,829)	(25,643)
Loss on extinguishment of convertible note payable	9,737	2,580,655
Deferred tax benefit	(24,803)	(20,427)
Offering costs allocated to warrant liabilities	604,118	—
Loss on sale/disposal of property and equipment	—	37,174
Change in fair value of derivative liabilities	4,677,388	1,816,309
Change in fair value of accrued issuable equity	9,405	(9,405)
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(1,377,247)	(210,195)
Due from related parties	—	(217,939)
Accounts payable	(5,730,537)	2,226,814
Accrued expenses	(1,646,657)	533,486
Accrued issuable equity	(52,500)	—
Total adjustments	<u>953,220</u>	<u>7,012,097</u>
Net Cash Used In Operating Activities	<u>(19,371,428)</u>	<u>(3,871,961)</u>
Cash Flows From Investing Activities		
Cash withdrawn from Trust Account	—	10,280,739
Cash acquired in reverse merger	—	3,006,235
Proceeds from repayment of notes receivable	—	1,203,750
Net Cash Provided by Investing Activities	<u>—</u>	<u>14,490,724</u>
Cash Flows From Financing Activities		
Proceeds from sale of common stock and warrants	26,666,200	72,500
Offering costs in connection with sale of common stock and warrants	(2,055,130)	—
Repayment of advances from related party	—	(201,859)
Repayment of convertible debt	(10,000)	—
Repayment of loans payable	(807,594)	(72,843)
Payment of common stock redemptions payable	—	(9,006,493)
Proceeds from loans payable	1,618,443	275,049
Proceeds from convertible notes payable	—	82,500
Proceeds from Paycheck Protection Program Loan	—	53,051
Proceeds from Bounce Back Scheme Loan	—	64,168
Net Cash Provided By (Used In) Financing Activities	<u>25,411,919</u>	<u>(8,733,927)</u>

The accompanying notes are an integral part of these consolidated financial statements.

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS — (Continued)
(Expressed in US Dollars)

	For the Years Ended December 31,	
	2021	2020
Effect of Exchange Rate Changes on Cash	75,473	140,311
Net Increase In Cash	6,115,964	2,025,147
Cash – Beginning of Period	2,108,544	83,397
Cash – End of Period	<u>\$ 8,224,508</u>	<u>\$ 2,108,544</u>
Supplemental Disclosures of Cash Flow Information:		
Cash paid during the period for income taxes	<u>\$ —</u>	<u>\$ —</u>
Cash paid during the period for interest	<u>\$ 35,351</u>	<u>\$ —</u>
Non-cash investing and financing activities:		
Common stock issued upon conversion of KBL debt	<u>\$ 1,931,388</u>	<u>\$ —</u>
Common stock issued upon conversion of 180 debt	<u>\$ 432,383</u>	<u>\$ —</u>
Common stock issued in connection with repayment of related party loans and convertible notes	<u>\$ 851,112</u>	<u>\$ —</u>
Shares and warrants issued for Alpha Settlement	<u>\$ 1,013,331</u>	<u>\$ —</u>
Exchange of common stock equivalents for common stock	<u>\$ 146</u>	<u>\$ —</u>
Shares issued to settle accounts payable	<u>\$ 1,750,000</u>	<u>\$ —</u>
Reclassification of accrued issuable equity	<u>\$ 43,095</u>	<u>\$ —</u>
Recognition of beneficial conversion feature as loss on extinguishment of convertible note principal	<u>\$ —</u>	<u>\$ 329,300</u>
Redemption premium and restructuring fee recognized as an increase in convertible note principal	<u>\$ —</u>	<u>\$ 557,436</u>
Conversion of notes payable and accrued interest into common stock	<u>\$ —</u>	<u>\$ 6,282,303</u>
Deemed dividend – Conversion of Series A Convertible Preferred Stock into common stock	<u>\$ —</u>	<u>\$ 4,349,035</u>
Deemed dividend – Extinguishment on Series A Convertible Preferred stock	<u>\$ —</u>	<u>\$ 565,659</u>
Deemed dividend – Make-whole dividend on conversion of Series A Convertible preferred stock	<u>\$ —</u>	<u>\$ 333,333</u>
Deemed dividend – Beneficial conversion feature on Series A Convertible Preferred Stock	<u>\$ —</u>	<u>\$ 223,710</u>
Net non-cash liabilities assumed in Business Combination	<u>\$ —</u>	<u>\$ 11,866,515</u>
Financing of D&O insurance premium	<u>\$ —</u>	<u>\$ 728,437</u>

The accompanying notes are an integral part of these consolidated financial statements.

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in US Dollars, except share amounts)

NOTE 1 — BUSINESS ORGANIZATION AND NATURE OF OPERATIONS

180 Life Sciences Corp., formerly known as KBL Merger Corp. IV (“180LS”, or together with its subsidiaries, the “Company”), was a blank check company organized under the laws of the State of Delaware on September 7, 2016. The Company was formed for the purpose of effecting a merger, share exchange, asset acquisition, share purchase, reorganization or similar business combination with one or more businesses.

180 Life Corp. (“180”, f/k/a 180 Life Sciences Corp. and CannBioRx Life Sciences Corp.) is a wholly-owned subsidiary of the Company and was incorporated in the State of Delaware on January 28, 2019. The Company is located in the United States (“U.S.”) and is a medical pharmaceutical company focused upon unmet medical needs in the areas of inflammatory diseases, fibrosis, and chronic pain by employing innovative research and, where appropriate, combination therapies, through 180’s three wholly-owned subsidiaries, 180 Therapeutics L.P. (“180 LP”), CannBioRex Pharmaceuticals Corp. (“CBR Pharma”), and Katexco Pharmaceuticals Corp. (“Katexco”). 180 LP, CBR Pharma and Katexco are together, the “180 Subsidiaries.” Katexco was incorporated on March 7, 2018 under the provisions of the British Corporation Act of British Columbia. Additionally, 180’s wholly-owned subsidiaries Katexco Calco, ULC, Katexco Purchaseco, ULC, CannBioRex Calco, ULC, and CannBioRex Purchaseco, ULC were formed in the Canadian Province of British Columbia on May 31, 2019 to facilitate the acquisition of Katexco, CBR Pharma and 180 LP. On July 1, 2021, the assets and liabilities of the Canadian companies (Katexco and CBR Pharma) were transferred to their respective subsidiaries, which are Katexco Pharmaceuticals Corp. (“Katexco U.S.”) and CannBioRex Pharma Limited (“CBR Pharma U.K.”).

The Company is a clinical stage biotechnology company focused on the development of therapeutics for unmet medical needs in chronic pain, inflammation, fibrosis and other inflammatory diseases, where anti-TNF therapy will provide a clear benefit to patients, by employing innovative research, and, where appropriate, combination therapy. We have three product development platforms:

- fibrosis and anti-tumor necrosis factor (“TNF”);
- drugs which are derivatives of cannabidiol (“CBD”); and
- alpha 7 nicotinic acetylcholine receptor (“ α 7nAChR”).

Reorganization and Business Combination

On July 16, 2019, 180 and each of 180 LP, Katexco and CBR Pharma completed a corporate restructuring, pursuant to which 180 LP, Katexco and CBR Pharma became wholly-owned subsidiaries of 180 (the “Reorganization”). It was determined that Katexco was the accounting acquirer in the Reorganization and the remaining companies were the accounting acquirees.

On November 6, 2020 (the “Closing Date”), the Company consummated the previously announced business combination (the “Business Combination”) following a special meeting of stockholders held on November 5, 2020, where the stockholders of the Company considered and approved, among other matters, a proposal to adopt that certain Business Combination Agreement (as amended, the “Business Combination Agreement”), dated as of July 25, 2019. Pursuant to the Business Combination Agreement, among other things, a subsidiary of the Company merged with and into 180, with 180 continuing as the surviving entity and a wholly-owned subsidiary of the Company (the “Merger”). The Merger became effective on November 6, 2020 (see Note 4 — Business Combination).

Risks and Uncertainties

Regarding the COVID-19 pandemic, a continuation or worsening of the levels of market disruption and volatility seen in the recent past could have an adverse effect on the Company’s ability to access capital, on the Company’s business, results of operations and financial condition. Management continues to monitor the developments and have taken active measures to protect the health of the Company’s employees, their families and the Company’s communities. The ultimate impact will depend heavily on the duration of the COVID-19 pandemic and public health responses, as well as the substance and pace of macroeconomic recovery, all of which are uncertain and difficult to predict considering the continuing evolving landscape of the COVID-19 pandemic and the public health responses to contain it.

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in US Dollars, except share amounts)

NOTE 1 — BUSINESS ORGANIZATION AND NATURE OF OPERATIONS (cont.)

Management has evaluated, and will continue to evaluate, the impact of the COVID-19 pandemic on the industry and has concluded that while it is reasonably possible that the virus could have a negative effect on the Company's financial position, results of its operations and/or completion of business combination, the specific impact is not readily determinable as of the date of these consolidated financial statements. The follow up time for patient data and the statistical analysis for the Phase 2b Dupuytren's Contracture clinical trial was delayed as a result of COVID-19, but such follow-up and statistical analysis are now completed and the Company announced the top-line data results from the Phase 2b trial on December 1, 2021. Additionally, COVID-19 has delayed the initiation of certain clinical trials and may delay the initiation of other clinical trials in the future or otherwise have a material adverse effect on our future operations. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

NOTE 2 — GOING CONCERN AND MANAGEMENT'S PLANS

The Company has not generated any revenues and has incurred significant losses since inception. For the year ended December 31, 2021, the Company incurred a net loss of \$20,324,648 and used cash in operations of \$19,371,428. As of December 31, 2021, the Company has an accumulated deficit of \$68,682,286 and a working capital deficit of \$8,498,193. The Company expects to invest a significant amount of capital to fund research and development. As a result, the Company expects that its operating expenses will increase significantly, and consequently will require significant revenues to become profitable. Even if the Company does become profitable, it may not be able to sustain or increase profitability on a quarterly or annual basis. The Company cannot predict when, if ever, it will be profitable. There can be no assurance that the intellectual property of the Company, or other technologies it may acquire, will meet applicable regulatory standards, obtain required regulatory approvals, be capable of being produced in commercial quantities at reasonable costs, or be successfully marketed. The Company plans to undertake additional laboratory studies with respect to the intellectual property, and there can be no assurance that the results from such studies or trials will result in a commercially viable product or will not identify unwanted side effects.

These consolidated financial statements have been prepared under the assumption of a going concern, which assumes that the Company will be able to realize its assets and discharge its liabilities in the normal course of business. The Company's ability to continue its operations is dependent upon obtaining new financing for its ongoing operations. Future financing options available to the Company include equity financings and loans and if the Company is unable to obtain such additional financing timely, or on favorable terms, the Company may have to curtail its development, marketing and promotional activities, which would have a material adverse effect on its business, financial condition and results of operations, and it could ultimately be forced to discontinue its operations and liquidate. These matters raise substantial doubt about the Company's ability to continue as a going concern for a reasonable period of time, which is defined as within one year after the date that the consolidated financial statements are issued. Realization of the Company's assets may be substantially different from the carrying amounts presented in these consolidated financial statements and the accompanying consolidated financial statements do not include any adjustments that may become necessary, should the Company be unable to continue as a going concern.

NOTE 3 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). The Business Combination was accounted for as a reverse recapitalization, and 180 is deemed to be the accounting acquirer.

Consequently, the assets and liabilities and the historical operations that are reflected in these consolidated financial statements prior to the Business Combination are those of 180 Life Corp. and its subsidiaries. The preferred stock, common stock, additional paid in capital and earnings per share amount in these consolidated financial statements for the period prior to the Business Combination have been restated to reflect the recapitalization in accordance with the shares issued to the shareholders of the former parent, 180 Life Corp. as a result of the Business Combination.

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in US Dollars, except share amounts)

NOTE 3 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Emerging Growth Company Disclosure Exemptions

The Company qualifies as an “emerging growth company,” as defined in the JOBS Act. For so long as the Company remains an emerging growth company, it is permitted and plans to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These provisions include, but are not limited to: being permitted to have only two years of audited financial statements and only two years of related selected financial data and management’s discussion and analysis of financial condition and results of operations disclosure; an exemption from compliance with the auditor attestation requirement in the assessment of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act; not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor’s report providing additional information about the audit and the financial statements; reduced disclosure obligations regarding executive compensation arrangements in our periodic reports, registration statements and proxy statements; and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. In addition, the JOBS Act permits emerging growth companies to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. The Company intends to take advantage of the exemptions discussed above.

Principles of Consolidation

On November 6, 2020 (the “Closing Date”), the Company consummated a business combination (the “Business Combination”) pursuant to which, among other things, a subsidiary of the Company merged with and into 180, with 180 continuing as the surviving entity and a wholly-owned subsidiary of the Company (the “Merger”), and the Company prior to the Merger sometimes referred to herein as “KBL”). The Business Combination was accounted for as a reverse recapitalization, and 180 is deemed to be the accounting acquirer. Consequently, the assets and liabilities and the historical operations that are reflected in these consolidated financial statements prior to the Business Combination are those of 180 Life Corp. and its subsidiaries. The preferred stock, common stock, additional paid in capital and earnings per share amount in these consolidated financial statements for the period prior to the Business Combination have been restated to reflect the recapitalization in accordance with the shares issued to the shareholders of the former parent, 180 Life Corp. as a result of the Business Combination.

The consolidated financial statements include the historical accounts of 180 Life Corp. as accounting acquirer along with its wholly-owned subsidiaries, and, effective with the closing of the Business Combination, 180LS as the accounting acquiree. All intercompany transactions and balances have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates, judgments, and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, together with amounts disclosed in the related notes to the consolidated financial statements. The Company’s significant estimates and assumptions used in these financial statements include, but are not limited to, the fair value of financial instruments warrants, options and equity shares; the valuation of stock-based compensation; and the estimates and assumptions related to impairment analysis of goodwill and other intangible assets long-lived assets. Certain of the Company’s estimates could be affected by external conditions, including those unique to the Company and general economic conditions. It is reasonably possible that these external factors could have an effect on the Company’s estimates and may cause actual results to differ from those estimates.

Accounting for Business Combinations

As required by U.S. GAAP, the Company records acquisitions under the acquisition method of accounting, under which the assets acquired and liabilities assumed are initially recorded at their respective fair values and any excess purchase price over the estimated fair value of net assets acquired is reflected as goodwill. The Company uses

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in US Dollars, except share amounts)

NOTE 3 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

estimates and, in some instances, independent third-party valuation firms to assist in determining the fair values of assets acquired, liabilities assumed and contingent consideration, if any. Such estimates and valuations require significant assumptions, including projections of future events and operating performance. The estimated fair values are subject to change during the measurement period, which is limited to one year subsequent to the acquisition date.

Foreign Currency Translation

The Company's reporting currency is the United States dollar. The functional currency of certain subsidiaries is the Canadian Dollar ("CAD") or British Pound ("GBP"). Assets and liabilities are translated based on the exchange rates at the balance sheet date (0.7874 and 0.7847 for the CAD, 1.3510 and 1.3649 for the GBP as of December 31, 2021 and 2020, respectively), while expense accounts are translated at the weighted average exchange rate for the period (0.7977 and 0.7462 for the CAD and 1.3753 and 1.2843 for the GBP for the years ended December 31, 2021 and 2020, respectively). Equity accounts are translated at historical exchange rates. The resulting translation adjustments are recognized in stockholders' equity as a component of accumulated other comprehensive income.

Comprehensive income is defined as the change in equity of an entity from all sources other than investments by owners or distributions to owners and includes foreign currency translation adjustments as described above. During the years ended December 31, 2021 and 2020, the Company recorded other comprehensive income of \$180,133 and \$484,083, respectively, as a result of foreign currency translation adjustments.

Foreign currency gains and losses resulting from transactions denominated in foreign currencies, including intercompany transactions, are included in results of operations. The Company recognized (\$69) and \$1,030 of foreign currency transaction (losses)/gains for the years ended December 31, 2021 and 2020, respectively. Such amounts have been classified within general and administrative expenses in the accompanying consolidated statements of operations and comprehensive loss.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents in the financial statements. The Company had no cash equivalents at December 31, 2021 or 2020. As of December 31, 2021, the Company had bank accounts in the United States and the United Kingdom. The Company's cash deposits in United States and English financial institutions may at times may be in excess of the Federal Deposit Insurance Corporation ("FDIC") or the Financial Services Compensation Scheme ("FSCS") insurance limits, respectively. The Company has not experienced losses in such accounts and periodically evaluates the creditworthiness of its financial institutions.

Intangible Assets and In-Process Research and Development ("IPR&D")

Intangible assets consist of licensed patents held by Katexco as well as technology licenses acquired in connection with the Reorganization. Licensed patents are amortized over the remaining life of the patent. Technology licenses represent the fair value of licenses acquired for the development and commercialization of certain licenses and knowledge. The technology licenses are amortized on a straight-line basis over the estimated useful lives of the underlying patents. It will be necessary to monitor and possibly adjust the useful lives of the licensed patents and technology licenses depending on the results of the Company's research and development activities.

IPR&D assets represent the fair value assigned to technologies that were acquired on July 16, 2019 in connection with the Reorganization, which have not reached technological feasibility and have no alternative future use. IPR&D assets are considered to be indefinite-lived until the completion or abandonment of the associated research and development projects. During the period that the IPR&D assets are considered indefinite-lived, they are tested for impairment on an annual basis, or more frequently if the Company becomes aware of any events occurring or changes in circumstances that indicate that the fair value of the IPR&D assets are less than their carrying amounts. If and when development is complete, which generally occurs upon regulatory approval, and the Company is able to commercialize

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in US Dollars, except share amounts)

NOTE 3 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

products associated with the IPR&D assets, these assets are then deemed definite-lived and are amortized based on their estimated useful lives at that point in time. If development is terminated or abandoned, the Company may record a full or partial impairment charge related to the IPR&D assets, calculated as the excess of the carrying value of the IPR&D assets over their estimated fair value.

Impairment of Long-Lived Assets

The Company reviews long-lived assets and certain identifiable assets for impairment whenever circumstances and situations change such that there is an indication that the carrying amounts may not be recovered. An impairment exists when the carrying value of the long-lived asset is not recoverable and exceeds its estimated fair value. No impairment charges were recorded during the years ended December 31, 2021 and 2020, respectively.

Goodwill

Goodwill represents the difference between the purchase price and the fair value of assets and liabilities acquired in a business combination. The Company reviews goodwill yearly, or more frequently whenever circumstances and situations change such that there is an indication that the carrying amounts may not be recovered, for impairment by initially considering qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill, as a basis for determining whether it is necessary to perform a quantitative analysis. If it is determined that it is more likely than not that the fair value of reporting unit is less than its carrying amount, a quantitative analysis is performed to identify goodwill impairment. If it is determined that it is not more likely than not that the fair value of the reporting unit is less than its carrying amount, it is unnecessary to perform a quantitative analysis. The Company may elect to bypass the qualitative assessment and proceed directly to performing a quantitative analysis. As of December 31, 2021, the Company elected to bypass the qualitative assessment and conducted a quantitative assessment whereby it was determined the fair value of the reporting unit (which the Company concluded was the consolidated entity), exceeded the carrying value and, accordingly, there was no impairment of goodwill.

Fair Value of Financial Instruments

The Company measures the fair value of financial assets and liabilities based on the guidance of Accounting Standards Codification (“ASC”) 820 “Fair Value Measurements” (“ASC 820”), which defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements.

ASC 820 defines fair value as the exchange price that would be received for 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. ASC 820 also establishes a fair value hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. ASC 820 describes three levels of inputs that may be used to measure fair value:

- Level 1 — Quoted prices in active markets for identical assets or liabilities;
- Level 2 — Quoted prices for similar assets and liabilities in active markets or inputs that are observable; and
- Level 3 — Inputs that are unobservable (for example, cash flow modeling inputs based on assumptions).

The carrying amounts of certain of the Company’s financial instruments, consisting primarily of loans payable and convertible notes payable, approximate their fair values as presented in these consolidated financial statements due to the short-term nature of those instruments. The Company’s derivative liabilities were valued using level 3 inputs (see Note 9 — Derivative Liabilities for additional information).

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in US Dollars, except share amounts)

NOTE 3 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Accrued Issuable Equity

The Company records accrued issuable equity when it is contractually obligated to issue shares and there has been a delay in the issuance of such shares. Accrued issuable equity is recorded and carried at fair value with changes in its fair value recognized in the Company's consolidated statements of operations. Once the underlying shares of common stock are issued, the accrued issuable equity is reclassified as of the share issuance date at the then current fair market value of the common stock.

Stock-Based Compensation

The Company measures the cost of services received in exchange for an award of equity instruments based on the fair value of the award. The fair value of the award is measured on the grant date and is estimated by management based on observations of the recent cash sales prices of common stock. The fair value amount is then recognized over the period during which services are required to be provided in exchange for the award, usually the vesting period. Upon the exercise of an option or warrant, the Company issues new shares of common stock out of its authorized shares.

Derivative Liabilities and Convertible Instruments

The Company evaluates its debt and equity issuances to determine if those contracts or embedded components of those contracts qualify as derivatives requiring separate recognition in the Company's financial statements. Entities must consider whether to classify contracts that may be settled in its own stock, such as warrants, as equity of the entity or as an asset or liability. If an event that is not within the entity's control could require net cash settlement, then the contract should be classified as an asset or a liability rather than as equity.

The result of this accounting treatment is that the fair value of the embedded derivative is marked-to-market at each balance sheet date and recorded as a liability and the change in fair value is recorded in other (expense) income, net in the consolidated statements of operations. In circumstances where there are multiple embedded instruments that are required to be bifurcated, the bifurcated derivative instruments are accounted for as a single, compound derivative instrument. The classification of derivative instruments, including whether such instruments should be recorded as liabilities or as equity, is reassessed at the end of each reporting period. Equity instruments that are initially classified as equity that become subject to reclassification are reclassified to liability at the fair value of the instrument on the reclassification date. Derivative instrument liabilities are classified in the balance sheet as current or non-current based on whether or not net-cash settlement of the derivative instrument is expected within twelve months of the balance sheet date.

If the embedded conversion options do not require bifurcation, the Company then evaluates for the existence of a beneficial conversion feature by comparing the fair value of the Company's underlying stock as of the commitment date to the effective conversion price of the instrument (the intrinsic value).

Debt discounts under these arrangements are amortized over the term of the related debt to their stated date of redemption and are classified in interest expense in the consolidated statements of operations. Preferred stock discounts are only accreted to their redemption value if redemption becomes probable.

Amendments to convertible instruments are evaluated as to whether they should be accounted for as a modification of the original instrument with no change to the accounting or, if the terms are substantially changed, as an extinguishment of the original instrument and the issuance of a new instrument.

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NOTE 3 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

The Company has computed the fair value of warrants, options, convertible notes and convertible preferred stock issued using the Monte-Carlo and Black-Scholes option pricing models. The expected term used for warrants, convertible notes and convertible preferred stock are the contractual life and the expected term used for options issued is the estimated period of time that options granted are expected to be outstanding. The Company utilizes the “simplified” method to develop an estimate of the expected term of “plain vanilla” option grants. The Company is utilizing an expected volatility figure based on a review of the historical volatilities, over a period of time, equivalent to the expected life of the instrument being valued, of similarly positioned public companies within its industry. The risk-free interest rate was determined from the implied yields from U.S. Treasury zero-coupon bonds with a remaining term consistent with the expected term of the instrument being valued.

Net Loss Per Common Share

Basic net loss per common share is computed by dividing net loss by the weighted average number of common shares outstanding during the period. Diluted net (loss) per common share is computed by dividing net (loss) by the weighted average number of common shares outstanding, plus the number of additional common shares that would have been outstanding if the common share equivalents had been issued (computed using the treasury stock or if converted method), if dilutive.

The following common share equivalents are excluded from the calculation of weighted average common shares outstanding, because their inclusion would have been anti-dilutive:

	For the Years Ended December 31,	
	2021	2020
Options	2,741,000	50,000
Warrants	11,153,908	6,064,908
Convertible debt ^(a)	—	932,614
Total potentially dilutive shares	<u>13,894,908</u>	<u>7,047,522</u>

a) Represents shares issuable upon conversion of debt at various conversion prices, some of which were calculated using the fair value of the Company’s common stock at the respective balance sheet date.

Research and Development

Research and development expenses are charged to operations as incurred. During the years ended December 31, 2021 and 2020, the Company incurred \$1,000,769 and \$2,217,371, respectively, of research and development expenses. As of December 31, 2021 and 2020, research and development expenses — related parties were \$2,947,536 and \$75,633, respectively. See Note 15 — Related Parties for more information on research and development expenses — related parties.

Income Taxes

The Company accounts for income taxes under the provisions of ASC Topic 740 “Income Taxes” (“ASC 740”).

The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of items that have been included or excluded in the financial statements or tax returns. Deferred tax assets and liabilities are determined on the basis of the difference between the tax basis of assets and liabilities and their respective financial reporting amounts (“temporary differences”) at enacted tax rates in effect for the years in which the temporary differences are expected to reverse.

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NOTE 3 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

The Company utilizes a recognition threshold and measurement process for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. The Company's policy is to classify assessments, if any, for tax related interest as interest expense and penalties as general and administrative expenses in the consolidated statements of operations and comprehensive loss.

Recently Issued Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In December 2019, the Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update ("ASU") 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes," which is intended to simplify various aspects related to accounting for income taxes. ASU 2019-12 removes certain exceptions to the general principles in Topic 740 and also clarifies and amends existing guidance to improve consistent application. The Company adopted ASU 2019-12 effective for January 1, 2021 and its adoption did not have a material impact on the Company's consolidated financial statements and related disclosures.

Recently Issued But Not Yet Adopted Accounting Pronouncements

On May 3, 2021, FASB issued ASU 2021-04, Earnings Per Share (Topic 260), Debt — Modifications and Extinguishments (Subtopic 470-50), Compensation — Stock Compensation (Topic 718), and Derivatives and Hedging — Contracts in Entity's Own Equity (Subtopic 815-40): Issuer's Accounting for Certain Modifications or Exchanges of Freestanding Equity-Classified Written Call Options. This new standard provides clarification and reduces diversity in an issuer's accounting for modifications or exchanges of freestanding equity-classified written call options (such as warrants) that remain equity classified after modification or exchange. This standard is effective for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. Issuers should apply the new standard prospectively to modifications or exchanges occurring after the effective date of the new standard. Early adoption is permitted, including adoption in an interim period. If an issuer elects to early adopt the new standard in an interim period, the guidance should be applied as of the beginning of the fiscal year that includes that interim period. The Company is evaluating this new standard.

NOTE 4 — BUSINESS COMBINATION

On November 6, 2020 (the "Closing Date"), the Company consummated the previously announced business combination (the "Business Combination") following a special meeting of stockholders held on November 5, 2020, where the stockholders of the Company considered and approved, among other matters, a proposal to adopt that certain Business Combination Agreement (as amended, the "Business Combination Agreement"), dated as of July 25, 2019. References to "KBL" below refer to the Company prior to the Closing Date, then known as KBL Merger Corp. IV ("KBL"). Pursuant to the Business Combination Agreement, among other things, a subsidiary of the Company merged with and into 180, with 180 continuing as the surviving entity and a wholly-owned subsidiary of the Company (the "Merger"). The Business Combination was accounted for as a reverse recapitalization of 180. All of 180's capital stock outstanding immediately prior to the merger was exchanged for (i) 15,736,348 shares of 180LS common stock, (ii) 2 shares of Class C and Class K Special Voting Shares exchangeable into 1,763,652 shares of 180LS common stock which are presented as outstanding in the accompanying Statement of Changes in Stockholders' Equity due to the reverse recapitalization. KBL's 6,928,645 outstanding shares of common stock are presented as being issued on the date of the Business Combination.

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NOTE 4 — BUSINESS COMBINATION (cont.)

Below is a summary of the assets acquired and the liabilities assumed in connection with the Business Combination.

Cash	\$ 3,006,235
Prepaid expenses	57,748
Marketable securities held in Trust Account	10,373,857
Accounts payable and accrued expenses	(4,722,933)
Convertible notes payable, net of debt discount	(2,504,045)
Derivative liabilities (see Note 9)	(3,945,365)
Due to/from Related Party	(201,859)
Loans payable	(10,000)
Promissory note with 180	(496,161)
Redemptions payable	(9,006,493)
Net fair value of assets acquired and liabilities assumed	(7,449,016)
Series A convertible preferred stock (see Note 13)	(1,411,265)
Effect of reverse recapitalization	\$ (8,860,281)

Subsequent to the Business Combination, the marketable securities were released from the Trust Account, were converted into cash, and were used to settle the share redemption payable.

NOTE 5 — PREPAID EXPENSES AND OTHER CURRENT ASSETS

Prepaid expenses consist of the following as of December 31, 2021 and 2020:

	December 31,	
	2021	2020
Insurance	\$ 2,151,487	\$ 1,003,271
Research and development expense tax credit receivable	644,513	409,470
Professional fees	80,783	104,080
Value-added tax receivable	24,411	37,751
Taxes	25,634	37,424
Other	49,755	14,418
	<u>\$ 2,976,583</u>	<u>\$ 1,606,414</u>

NOTE 6 — INTANGIBLE ASSETS

Intangible assets consist of the following as of December 31, 2021 and 2020:

		As of December 31, 2021			As of December 31, 2020		
		Remaining Amortization Period in Years at December 31, 2021	Gross Asset Value	Accumulated Amortization	Net Carrying Value	Gross Asset Value	Accumulated Amortization
Licensed patents	14.6	\$ 603,919	\$ (110,759)	\$ 493,160	\$ 592,608	\$ (76,766)	\$ 515,842
Technology license	17.5	1,658,550	(202,797)	1,455,753	1,652,469	(120,493)	1,531,976
		<u>\$ 2,262,469</u>	<u>\$ (313,556)</u>	<u>\$ 1,948,913</u>	<u>\$ 2,245,077</u>	<u>\$ (197,259)</u>	<u>\$ 2,047,818</u>

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NOTE 6 — INTANGIBLE ASSETS (cont.)

Changes in the gross asset value of licensed patents and technology licenses from the dates acquired are the result of changes in the foreign currency exchange rate.

The Company recorded amortization expense of \$116,297 and \$116,841 during the years ended December 31, 2021 and 2020, respectively, related to intangible assets, which is included in general and administrative expense on the accompanying consolidated statements of operations and comprehensive loss.

Future amortization related to intangible assets is as follows:

For the Years Ending December 31,	
2022	\$ 114,800
2023	114,800
2024	114,800
2025	114,800
2026	114,800
Thereafter	1,374,913
	<u>\$ 1,948,913</u>

NOTE 7 — ACCRUED EXPENSES

Accrued expenses consist of the following as of December 31, 2021 and 2020:

	December 31,	
	2021	2020
Consulting fees	\$ 548,281	\$ 1,718,559
Professional fees	252,973	1,261,751
Litigation accrual ⁽¹⁾	300,000	—
Employee and director compensation	725,569	878,292
Research and development fees	91,737	17,817
Interest	25,433	184,576
Other	20,587	49,921
	<u>\$ 1,964,580</u>	<u>\$ 4,110,916</u>

(1) See Note 12 — Commitments and Contingencies, *Potential Legal Matters*.

As of December 31, 2021 and 2020, accrued expenses — related parties were \$18,370 and \$454,951, respectively. See Note 15 — Related Parties for details.

NOTE 8 — ACCRUED ISSUABLE EQUITY

A summary of the accrued issuable equity activity during the years ended December 31, 2021 and 2020 is presented below:

Balance at January 1, 2020	\$ —
Additions	43,095
Balance at December 31, 2020	43,095
Reclassification to equity	(43,095)
Balance at December 31, 2021	<u>\$ —</u>

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NOTE 8 — ACCRUED ISSUABLE EQUITY (cont.)

During the year ended December 31, 2020, the Company entered into a contractual arrangement for services in exchange for shares of common stock of the Company for fixed dollar amounts. Pursuant to the contractual agreement, the Company will issue an aggregate value of \$5,000 common shares on a monthly basis and an aggregate of \$30,000 of common shares at the end of each quarter. As of December 31, 2020, the Company recorded \$43,095 of accrued issuable equity related to services. During the first quarter of 2021, this balance was reclassified to equity and as of December 31, 2021, there was no accrued issuable equity.

NOTE 9 — DERIVATIVE LIABILITIES

The following table sets forth a summary of the changes in the fair value of Level 3 derivative liabilities (except the Public Special Purpose Acquisition Companies (“SPAC”) warrants as defined below, which are Level 1 derivative liabilities) that are measured at fair value on a recurring basis:

	For the Year Ended December 31, 2021					
	Warrants				Convertible Notes	Total
	Public SPAC	Private SPAC	PIPE	Other		
Balance as of January 1, 2021	\$ 3,795,000	\$ 256,275	\$ —	\$ 165,895	\$ 225,800	\$ 4,442,970
Extinguishment of derivative liabilities in connection with conversion of debt ⁽¹⁾	—	—	—	—	(591,203)	(591,203)
Warrants issued in connection with the financing	—	—	7,294,836	—	—	7,294,836
Warrants issued relates to Alpha settlement ⁽¹⁾	—	—	—	95,677	—	95,677
Extinguishment of derivative liabilities in connection with the Alpha settlement ⁽¹⁾	—	—	—	—	(699,301)	(699,301)
Change in fair value of derivative liabilities	4,253,850	211,050	(778,536)	(73,680)	1,064,704	4,677,388
Balance as of December 31, 2021	<u>\$ 8,048,850</u>	<u>\$ 467,325</u>	<u>\$ 6,516,300</u>	<u>\$ 187,892</u>	<u>\$ —</u>	<u>\$ 15,220,367</u>

(1) See Note 11 — Convertible Notes Payable

	For the Year Ended December 31, 2020			
	Warrants	Convertible Notes	Preferred Stock	Total
Beginning balance as of January 1, 2020	\$ —	\$ —	\$ —	\$ —
Derivative liabilities assumed at date of Business Combination	2,754,865	23,500	1,167,000	3,945,365
Derecognition of derivative liabilities in connection with convertible note and preferred stock modification and exchanges	—	(723,336)	(2,033,068)	(2,756,404)
Issuance of derivative liabilities	—	1,219,700	218,000	1,437,700
Change in fair value of derivative liabilities	1,462,305	(294,064)	648,068	1,816,309
Ending balance as of December 31, 2020	<u>\$ 4,217,170</u>	<u>\$ 225,800</u>	<u>\$ —</u>	<u>\$ 4,442,970</u>

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NOTE 9 — DERIVATIVE LIABILITIES (cont.)

The fair value of the derivative liabilities as of December 31, 2021 were estimated using the MonteCarlo and Black Scholes option pricing models, with the following assumptions used:

	December 31, 2021
Risk-free interest rate	0.85% – 1.14%
Expected term in years	2.59 – 4.15
Expected volatility	98.5%
Expected dividends	0%

In applying the Monte-Carlo and Black-Scholes option pricing models to derivatives assumed on November 6, 2020, the Company used the following assumptions:

	November 6, 2020
Risk-free interest rate	0.08% – 0.40%
Expected term (years)	0.26 – 5.01
Expected volatility	80% – 207%
Expected dividends	0.00%

In connection with the modification of certain convertible notes on November 25, 2020 (See Note 11 — Convertible Notes Payable for additional details), the Company applied the Monte-Carlo and Black-Scholes option pricing models to value embedded features as derivative liabilities with the following assumptions:

	November 25, 2020
Risk-free interest rate	0.06% – 0.09%
Expected term (years)	0.24 – 0.54
Expected volatility	115% – 160%
Expected dividends	0.00%

SPAC Warrants*Public SPAC Warrants*

Participants in KBL’s initial public offering received an aggregate of 11,500,000 Public SPAC Warrants (“Public SPAC Warrants”). Each Public SPAC Warrant entitles the holder to purchase one -half of one share of the Company’s common stock at an exercise price of \$5.75 per half share (\$11.50 per whole share), subject to adjustment. No fractional shares will be issued upon exercise of the Public Warrants. The Public Warrants are currently exercisable and will expire five years after the completion of the Business Combination or earlier upon redemption or liquidation. The Company may redeem the Public Warrants, in whole and not in part, at a price of \$0.01 per Public Warrant upon 30 days’ notice (“30-day redemption period”), only in the event that the last sale price of the common stock equals or exceeds \$18.00 per share for any 20 trading days within a 30-trading day period ending on the third trading day prior to the date on which notice of redemption is given, provided there is an effective registration statement with respect to the shares of common stock underlying such Public Warrants and a current prospectus relating to those shares of common stock is available throughout the 30-day redemption period. If the Company calls the Public Warrants for redemption as described above, the Company’s management will have the option to require all holders that wish to exercise Public Warrants to do so on a “cashless basis.” Management has determined that the Public Warrants contain a tender offer provision which could result in the Public Warrants settling for the tender offer consideration (including potentially cash) in a transaction that didn’t result in a change-in-control. This feature results in the Public Warrants being precluded from equity classification. Accordingly, the Public Warrants are classified as liabilities measured at fair value, with changes in fair value each period reported in earnings. The fair value of the Public SPAC Warrants on

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NOTE 9 — DERIVATIVE LIABILITIES (cont.)

the date of the issuance was \$1,978,000. At December 31, 2021 and 2020 the Public SPAC Warrants were revalued at \$8,048,850 and \$3,795,000, respectively, which resulted in \$4,253,850 and \$1,817,000 increase in the fair value of the derivative liabilities during the years ended December 31, 2021 and 2020, respectively and recorded in the accompanying consolidated statement of operations.

Private SPAC Warrants

Participants in KBL's initial private placement received an aggregate of 502,500 Private SPAC Warrants ("Private SPAC Warrants"). Each Private Warrant entitles the holder to purchase one-half of one share of the Company's common stock at an exercise price of \$5.75 per half share (\$11.50 per whole share), subject to adjustment. No fractional shares will be issued upon exercise of the warrants. The Private Warrants are currently exercisable and will expire five years after the completion of the Business Combination or earlier upon redemption or liquidation. The Private Warrants are non-redeemable so long as they are held by original holders or their permitted transferees. If the Private Warrants are held by other parties, the Company may redeem the Private Warrants, in whole and not in part, at a price of \$0.01 per Warrant upon 30 days' notice ("30-day redemption period"), only in the event that the last sale price of the common stock equals or exceeds \$18.00 per share for any 20 trading days within a 30-trading day period ending on the third trading day prior to the date on which notice of redemption is given, provided there is an effective registration statement with respect to the shares of common stock underlying such Warrants and a current prospectus relating to those shares of common stock is available throughout the 30-day redemption period. If the Company calls the Private Warrants for redemption as described above, the Company's management will have the option to require all holders that wish to exercise Private Warrants to do so on a "cashless basis." Management has determined that the Private Warrants contain a tender offer provision which could result in the Private Warrants settling for the tender offer consideration (including potentially cash) in a transaction that didn't result in a change-in-control. This feature (amongst others) results in the Private Warrants being precluded from equity classification. Accordingly, the Private Warrants are classified as liabilities measured at fair value, with changes in fair value each period reported in earnings. The fair value of the Private SPAC Warrants on the date of the issuance was \$587,925. At December 31, 2021 and 2020 the Private SPAC Warrants were revalued at \$467,325 and \$256,275, respectively, which resulted in \$211,250 increase and \$331,650 decrease in the fair value of the derivative liabilities during the years ended December 31, 2021 and 2020, respectively. The increase and decrease in fair value of these derivative liabilities was recorded in the accompanying consolidated statement of operations.

PIPE Warrants

On February 23, 2021, the Company issued five-year warrants (the "PIPE Warrants") to purchase 2,564,000 shares of common stock at an exercise price of \$5.00 per share in connection with the private offering (see Note 13 — Stockholders' Equity, Common Stock). The PIPE Warrants did not meet the requirements for equity classification due to the existence of a tender offer provision that could potentially result in cash settlement of the PIPE Warrants that didn't meet the limited exception in the case of a change-in-control. Accordingly, the PIPE Warrants are liability-classified and the Company recorded the \$7,294,836 fair value of the PIPE Warrants, which was determined using the Black-Scholes option pricing model, as derivative liabilities. The PIPE Warrants were revalued on December 31, 2021 at \$6,516,300, which resulted in a \$778,536 decrease in the fair value of the derivative liabilities during the year ended December 31, 2021.

The following assumptions were used to value the PIPE Warrants at issuance:

	February 23, 2021
Risk-free interest rate	0.59%
Expected term in years	5.00
Expected volatility	85%
Expected dividends	0%

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NOTE 9 — DERIVATIVE LIABILITIES (cont.)**Other Warrants***AGP Warrant*

In connection with the closing of the Business Combination on November 6, 2020, the Company became obligated to assume five-year warrants for the purchase of 63,658 shares of the Company's common stock at an exercise price of \$5.28 per share (the "AGP Warrant Liability") that had originally been issued by KBL to an investment banking firm in connection with a prior private placement.

On March 12, 2021, the Company issued a warrant to AGP (the "AGP Warrant") to purchase up to an aggregate of 63,658 shares of the Company's common stock at a purchase price of \$5.28 per share, subject to adjustment, in full satisfaction of the existing AGP Warrant Liability. The exercise of the AGP Warrant is limited at any given time to prevent AGP from exceeding beneficial ownership of 4.99% of the then total number of issued and outstanding shares of the Company's common stock upon such exercise. The warrant is exercisable at any time between May 2, 2021 and May 2, 2025. The newly issued AGP Warrant did not meet the requirements for equity classification due to the existence of a tender offer provision that could potentially result in cash settlement of the AGP Warrant that did not meet the limited exception in the case of a change-in-control. Accordingly, the AGP Warrant will continue to be liability-classified. The AGP Warrant was revalued on December 31, 2021 at \$144,331 which resulted in a \$21,564 decrease in the fair value of the derivative liabilities during the year ended December 31, 2021.

The following assumptions were used to value the AGP Warrant at issuance:

	March 12, 2021
Risk-free interest rate	0.68%
Expected term in years	3.84
Expected volatility	85%
Expected dividends	0%

Alpha Warrant

In connection with the Alpha Settlement Agreement (see Note 11 — Convertible Notes Payable) that was agreed to on July 29, 2021 (signed on July 31, 2021), the Company issued a three-year warrant for the purchase of 25,000 shares of the Company's common stock at an exercise price of \$7.07 per share (the "Alpha Warrant Liability" and the "Alpha Warrant"). The exercise of shares of the Alpha Warrant is limited at any given time to prevent Alpha from exceeding a beneficial ownership of 4.99% of the then total number of issued and outstanding shares of the Company's common stock upon such exercise. The warrant is exercisable until August 2, 2024. The newly issued Alpha Warrant did not meet the requirements for equity classification due to the existence of a tender offer provision that could potentially result in cash settlement of the Alpha Warrant that did not meet the limited exception in the case of a change-in-control. Accordingly, the Alpha Warrant is liability-classified and the Company recorded the \$95,677 fair value of the Alpha Warrant, which was determined using the Black-Scholes option pricing model, as a derivative liability. The Alpha Warrant was revalued on December 31, 2021 at \$43,561, which resulted in a \$52,116 decrease in the fair value of the derivative liabilities during the year ended December 31, 2021.

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NOTE 9 — DERIVATIVE LIABILITIES (cont.)

The following assumptions were used to value the Alpha Warrant at issuance:

	July 29, 2021
Risk-free interest rate	0.37%
Expected term in years	3.00
Expected volatility	85%
Expected dividends	0%

Convertible Notes

The convertible notes issued in 2020 had embedded features that were bifurcated and recorded as derivative liabilities. Between January 15, 2021 and February 5, 2021, the fair value of derivative liabilities extinguished in connection with the conversion of debt (see Note 11 — Convertible Notes Payable) was estimated using the Monte-Carlo and Black Scholes option pricing models with the following assumptions used:

	January 15, 2021 to February 5, 2021
Risk-free interest rate	0.00% – 0.14%
Expected term in years	0.02 – 0.18
Expected volatility	120% – 161%
Expected dividends	0%

At the end of the second quarter of 2021, the Alpha Capital Note (see Note 11 — Convertible Notes Payable) that was the only convertible note with an outstanding balance and the full amount of the July 31, 2021 Alpha Settlement Agreement was accrued as of that date. On July 31, 2021, the Company recorded the extinguishment of the Alpha Capital Note, the related derivative liabilities and the balance of the settlement accrual. See Note 11 — Convertible Notes Payable for additional details.

Warrant Activity

A summary of the warrant activity (including the August 2021 PIPE Warrants which are equity-classified; see Note 13 — Stockholders' Equity) during the years ended December 31, 2021 and 2020 is presented below:

	Number of Warrants	Weighted Average Exercise Price	Weighted Average Remaining Life in Years	Intrinsic Value
Outstanding, January 1, 2020	—	—		
Issued	6,064,908	11.43		
Outstanding, December 31, 2020	6,064,908	11.43		
Issued	5,089,000	6.24		
Exercised	—	—		
Cancelled	—	—		
Expired	—	—		
Outstanding, December 31, 2021	11,153,908	\$ 9.06	4.1	
Exercisable, December 31, 2021	11,153,908	\$ 9.06	4.1	

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NOTE 9 — DERIVATIVE LIABILITIES (cont.)

A summary of outstanding and exercisable warrants as of December 31, 2021 is presented below:

Warrants Outstanding		Warrants Exercisable	
Exercise Price	Number of Shares	Weighted Average Remaining Life in Years	Number of Shares
\$ 5.00	2,564,000	4.2	2,564,000
\$ 5.28	63,658	3.3	63,658
\$ 7.07	25,000	2.6	25,000
\$ 7.50	2,500,000	4.6	2,500,000
\$ 11.50	6,001,250	3.9	6,001,250
	<u>11,153,908</u>	4.1	<u>11,153,908</u>

A summary of outstanding and exercisable warrants as of December 31, 2020 is presented below:

Warrants Outstanding		Warrants Exercisable	
Exercise Price	Number of Shares	Weighted Average Remaining Life in Years	Number of Shares
\$ 11.50	6,001,250	4.9	6,001,250
5.28	63,658		—
	<u>6,064,908</u>	4.9	<u>6,001,250</u>

NOTE 10 — LOANS PAYABLE

The following tables summarize the activity of loans payable during the years ended December 31, 2021 and 2020:

	Principal Balance at January 1, 2021	Forgiveness/ Adjusted to Other Income	Principal Repaid in Cash	New Issuances	Effect of Foreign Exchange Rates	Principal Balance at December 31, 2021
Kingsbrook	\$ 150,000	\$ —	\$ (150,000)	\$ —	\$ —	\$ —
Paycheck Protection Program	53,051	(11,670)	(69)	—	—	41,312
Bounce Back Loan Scheme	68,245	—	(4,724)	—	(2,352)	61,169
First Assurance Funding	655,593	—	(655,593)	1,618,443	—	1,618,443
Other loans payable	155,320	—	—	—	—	155,320
Total loans payable	1,082,209	\$ (11,670)	\$ (810,386)	\$ 1,618,443	\$ (2,352)	1,876,244
Less: loans payable – current portion	968,446					1,828,079
Loans payable – non-current portion	\$ 113,763					\$ 48,165

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NOTE 10 — LOANS PAYABLE (cont.)

	Principal Balance at January 1, 2020	Forgiveness/ Adjusted to Other Income	Principal Repaid in Cash	New Issuances	Effect of Foreign Exchange Rates	Principal Balance at December 31, 2020
Kingsbrook	\$ —	\$ —	\$ —	\$ 150,000	\$ —	\$ 150,000
Paycheck Protection Program	—	—	—	53,051	—	53,051
Bounce Back Loan Scheme	—	—	—	68,245	—	68,245
First Assurance Funding	—	—	(347,222)	1,002,815	—	655,593
Other loans payable	116,250	—	—	39,070	—	155,320
Total loans payable	116,250	\$ —	\$ (347,222)	\$ 1,313,181	\$ —	1,082,209
Less: loans payable – current portion	116,250	—	—	—	—	968,446
Loans payable – non-current portion	\$ —	—	—	—	—	\$ 113,763

Loans Payable, Current Portion

	Simple Interest Rate	December 31, 2021	December 31, 2020
Loan payable issued September 18, 2019	8%	\$ 50,000	\$ 50,000
Loan payable issued October 29, 2019	8%	69,250	69,250
Loan payable issued February 5, 2020	8%	3,500	3,500
Loan payable issued March 31, 2020	8%	4,537	4,537
Loan payable issued June 8, 2020	8%	5,000	5,000
Loan payable issued June 8, 2020	8%	5,000	5,000
Kingsbrook loan issued June 12, 2020	8%	—	150,000
Loan payable issued July 15, 2020*	8%	4,695	4,695
Loan payable issued October 13, 2020	8%	13,337	13,337
Loan payable issued December 10, 2020	8%	—	655,594
Current portion of PPP Loans ⁽¹⁾	1%	41,312	7,533
Current portion of Bounce Back Loans ⁽¹⁾	1%	13,005	—
Loan payable issued December 10, 2021	2%	1,618,443	—
		\$ 1,828,079	\$ 968,446

* These loans are denominated in currencies other than USD.

(1) See Loans Payable, Non-Current Portion for a description of the PPP Loans and the Bounce Back Loans.

Loans Payable, Non-Current Portion

The non-current portion of the Company's loans payable as of December 31, 2021 and 2020 are as follows:

	Simple Interest Rate	December 31, 2021	December 31, 2020	Maturity Date
PPP loan payable issued May 5, 2020	1.0%	41,312	\$ 51,051	5/4/2022
PPP loan payable issued April 24, 2020	1.0%	—	2,000	4/23/2022
BBLS loan payable issued June 10, 2020	2.5%	61,170	68,245	6/10/2026
Subtotal		102,482	121,296	
Less: Current portions of BBLS/PPP loans, respectively (see above)		(54,317)	(7,533)	
Non-current portion		\$ 48,165	\$ 113,763	

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NOTE 10 — LOANS PAYABLE (cont.)

During April and May 2020, the Company received loans in the aggregate amount of \$53,051 (the “PPP Loans”), under the Payroll Protection Program (“PPP”), to support continuing employment during the COVID-19 pandemic.

Effective March 27, 2020, legislation referred to as the Coronavirus Aid, Relief, and Economic Security Act (the “CARES Act”) was passed to benefit companies in the U.S. that were significantly impacted by the pandemic. Under the terms of the CARES Act, as amended by the Paycheck Protection Program Flexibility Act of 2020, the Company is eligible to apply for and receive forgiveness for all or a portion of their respective PPP Loans. Such forgiveness will be determined, subject to limitations, based on the use of the loan proceeds for certain permissible purposes as set forth in the PPP, including, but not limited to, payroll costs (as defined under the PPP) and mortgage interest, rent or utility costs (collectively, “Qualifying Expenses”) incurred during the 24 weeks subsequent to funding, and on the maintenance of employee and compensation levels, as defined, following the funding of the PPP Loan. The Company intends to use the proceeds of their PPP Loans for Qualifying Expenses. However, no assurance is provided that the Company will be able to obtain forgiveness of the PPP Loans in whole or in part. Any amounts not forgiven incur interest at 1.0% per annum and monthly repayments of principal and interest are deferred for six months after the date of disbursement. While the Company’s PPP loans currently have a two-year maturity, the amended law will permit the Company to request a five-year maturity. As of December 31, 2021 and 2020, the Company recorded accrued interest of \$163 and \$354, respectively, related to the PPP loans. During the years ended December 31, 2021 and 2020, the Company recorded interest expense of \$1,636 and \$354, respectively, related to the PPP loans.

On May 19, 2021, the Company applied for loan forgiveness for the amount of \$51,051 in connection with amounts borrowed by Katexco under the Paycheck Protection Program. On August 5, 2021, the Company was notified that \$9,670 was forgiven in connection with the PPP loan. The Company has appealed the decision and requested the full amount of the PPP loan be forgiven.

On September 30, 2021, the Company adjusted a portion of the PPP loan in the amount of \$2,000 to other income since such amount was a grant to 180LS by the government, and it did not need to be repaid.

On June 10, 2020, the Company received GBP £50,000 (USD \$64,353) of cash proceeds pursuant to the Bounce Back Loan Scheme (“BBLs”), which provides financial support to businesses across the UK that are losing revenue, and seeing their cashflow disrupted, as a result of the COVID-19 outbreak. The BBLs is unsecured and bears interest at 2.5% per annum. The maximum loan amount is GBP £50,000 and the length of the loan is six years, with payments beginning 12 months after the date of disbursement. Early repayment is allowed, without early repayment fees. As of December 31, 2021 and 2020, the Company recorded accrued interest of GBP £778 (USD \$1,051) and GBP £514 (USD \$702), respectively, related to the BBLs loan. During the years ended December 31, 2021 and 2020, the Company recorded interest expense of GBP £778 (USD \$1,051) and GBP £514 (USD \$702), respectively, related to the BBLs loan.

On June 12, 2020, the Company entered into a promissory note agreement with Kingsbrook Opportunities Master Fund LP for an aggregate principal sum of \$150,000, which bears interest at 15% per annum and matures on August 31, 2021. On March 3, 2021, the Company repaid the Kingsbrook loans payable in cash for an aggregate of \$162,452, which included the principal amount of \$150,000 and accrued interest of \$12,452.

During the year ended December 31, 2021, the Company paid an aggregate of \$655,593 in full satisfaction of the 2020 directors and officers insurance policy and \$4,724 in partial satisfaction of the Bounce Back Loan Scheme.

On December 10, 2021, the Company entered into a financing arrangement for a Directors and Officers Insurance Policy (the “D&O Insurance”) with First Assurance Funding to finance \$1,618,443 of a total D&O Insurance amount of \$2,005,502 inclusive of premiums, taxes, and fees. As of December 31, 2021, a total of \$1,618,443 remains financed in loans payable, due in monthly installments of \$161,844.

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NOTE 10 — LOANS PAYABLE (cont.)

Loans Payable — Related Parties

Loans payable to related parties (the “Related Party Loans”) consist of loans payable to certain of the Company’s officers, directors and a greater than 10% stockholder. The Company had the following loans payable to related parties outstanding as of December 31, 2021 and 2020:

	Simple Interest Rate	December 31, 2021	December 31, 2020
Loan payable issued September 18, 2019	8%	\$ 50,000	\$ 50,000
Loan payable issued October 8, 2019	0%	4,000	4,000
Loan payable issued October 20, 2019*	8%	—	81,463
Loan payable issued October 28, 2019*	8%	—	7,088
Loan payable issued October 29, 2019	8%	—	40,000
Loan payable issued October 29, 2019	8%	—	10,000
Loan payable issued November 27, 2019*	8%	—	20,515
Loan payable issued December 11, 2019	8%	—	10,342
Loan payable issued January 14, 2020	8%	—	4,726
Loan payable issued January 20, 2020	8%	—	137,382
Loan payable issued January 30, 2020*	8%	—	7,088
Loan payable issued February 5, 2020	8%	3,500	3,500
Loan payable issued February 28, 2020*	8%	—	19,261
Loan payable issued March 31, 2020	8%	4,537	4,537
Loan payable issued April 2, 2020	8%	—	1,871
Loan payable issued April 2, 2020	8%	—	1,564
Loan payable issued April 13, 2020	8%	—	12,875
Loan payable issued April 13, 2020	8%	—	12,905
Loan payable issued April 27, 2020*	8%	—	7,962
Loan payable issued May 19, 2020	8%	—	2,152
Loan payable issued May 30, 2020*	8%	—	7,962
Loan payable issued May 30, 2020	8%	—	7,890
Loan payable issued June 17, 2020	8%	485	485
Loan payable issued July 15, 2020	8%	5,503	5,503
Loan payable issued August 25, 2020*	8%	—	9,162
Loan payable issued October 8, 2020*	8%	8,708	8,796
Loan payable issued October 15, 2020	8%	—	10,094
Loan payable issued October 14, 2020*	8%	4,544	4,544
Loan payable issued October 1, 2020*	8%	—	10,253
Loan payable issued November 4, 2020*	8%	—	9,162
		\$ 81,277	\$ 513,082

* These loans are denominated in currencies other than USD.

At issuance, the Related Party Loans provided for a maturity date upon the earliest of (a) the consummation of the Business Combination; (b) June 30, 2020; or (c) 60 days after the respective issuance date. On July 1, 2020, the Company amended the terms of the Related Party Loans to extend the maturity terms to the earlier of (a) the closing of a qualified financing; or (b) November 1, 2020. The terms of all loan extensions were reviewed and were deemed to be modifications, rather than extinguishments.

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NOTE 10 — LOANS PAYABLE (cont.)

On February 10, 2021, the Company entered into amended loan agreements to modify the terms of certain loan agreements in the aggregate principal amount of \$432,699, previously entered into with Sir Marc Feldmann and Dr. Lawrence Steinman, the Executive Co-Chairmen of the Board of Directors. The loan agreements were extended and modified to be paid back at the Company’s discretion, either by 1) repayment in cash, or 2) by converting the outstanding amounts into shares of common stock at the same price per share as the next financing transaction. Subsequently, on February 25, 2021, and effective as of the date of the original February 10, 2021 amendments, the Company determined that such amendments were entered into in error and each of Sir Feldmann and Dr. Steinman rescinded such February 10, 2021 amendments pursuant to their entry into Confirmations of Rescission acknowledgements. As such, the amendments to allow Sir Feldmann and Dr. Steinman the option to convert such loans into shares of common stock were never effective.

On April 12, 2021, the Company entered into amended loan agreements with Sir Marc Feldmann and Dr. Lawrence Steinman, the Executive Co-Chairman of the Board of Directors, which extended the maturity date of all of their outstanding loan agreements to September 30, 2021.

On that day, they elected to exchange an aggregate principal of \$433,374 and aggregate accrued interest of \$61,530 into an aggregate of 82,484 shares of the Company’s common stock at a price of \$6.00 per share, pursuant to the terms of the agreement (see Note 13 — Stockholders’ Equity).

Interest Expense on Loans Payable

For the year ended December 31, 2021, the Company recognized interest expense and interest expense — related parties associated with outstanding loans, of \$24,019 and \$38,874, respectively.

For the year ended December 31, 2020, the Company recognized interest expense and interest expense — related parties associated with outstanding loans, of \$23,709 and \$35,973, respectively.

As of December 31, 2021, the Company had accrued interest and accrued interest — related parties associated with outstanding loans, of \$24,212 and \$812, respectively. See Note 15 — Related Parties for additional details.

As of December 31, 2020, the Company had accrued interest and accrued interest — related parties associated with outstanding loans, of \$24,824 and \$37,539, respectively. See Note 15 — Related Parties for additional details.

NOTE 11 — CONVERTIBLE NOTES PAYABLE

The table below details the convertible notes payable activity during the years ended December 31, 2021 and 2020:

	Effective Date	Maturity Date (as amended, if applicable)	01/01/21 Principal Balance	Impact of Extinguishment	Conversions to Common Stock	Common Shares Issued	12/31/21 Principal Balance
Dominion	06/12/20	02/11/21	\$ 833,334	\$ —	\$ (833,334)	338,393	\$ —
Kingsbrook	06/12/20	02/11/21	101,000	—	(101,000)	33,770	—
Alpha Capital	06/12/20	02/11/21	616,111	(316,111)	(300,000)	94,960	—
Bridge Note	12/27/19	08/28/21	365,750	—	(365,750)	158,383	—
Total			\$ 1,916,195	\$ (316,111)	\$ (1,600,084)	625,506	\$ —

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NOTE 11 — CONVERTIBLE NOTES PAYABLE (cont.)

For The Year Ended December 31, 2020										
	Effective Date	Maturity Date (as amended, if applicable)	01/01/20 Principal Balance	Debt Issued	Debt Discount	Amortization of Debt Discount	Impact of Extinguishment	Conversions to Common Stock	12/31/20 Principal Balance	
Dominion	06/12/20	02/11/21	\$ —	\$1,805,556	\$(722,966)	\$ 134,134	\$ 588,832	\$(972,222)	\$ 833,334	
Kingsbrook	06/12/20	02/11/21	—	1,796,411	(685,615)	127,227	558,388	(1,695,411)	101,000	
Alpha										
Capital	06/12/20	02/11/21	—	1,111,111	(800,421)	94,786	705,635	(495,000)	616,111	
Amended Senior Note	07/25/19	08/28/21	1,405,695	—	—	—	—	—	—	
Amended Senior Note ⁽¹⁾	07/25/19	08/28/21	1,081,251	—	—	—	—	(1,768,779)	—	
Bridge Note	12/27/19	08/28/21	250,000	—	—	—	—	—	275,000	
Bridge Note	01/03/20	08/28/21	—	82,500	—	—	—	—	90,750	
Total			\$2,736,946	\$4,795,578	\$(2,209,002)	\$ 356,147	\$ 1,852,855	\$(4,931,412)	\$ 1,916,195	

[1] See Note 10 — Convertible Notes Payable — Extinguishment of Senior Note and Issuance of New Note for additional details.

[2] See Note 10 — Convertible Notes Payable — Bridge Notes for additional details.

[3] See Note 10 — Convertible Notes Payable — Amended Bridge Notes for additional details.

The following table details the convertible notes payable — related parties activities during the years ended December 31, 2021 and 2020:

For the Year Ended December 31, 2021								
	Effective Date	Maturity Date (as amended, if applicable)	01/01/21 Principal Balance	Debt Issued	Unpaid Interest Capitalized to Principal	Settlement Debt	Conversions to Common Stock	12/31/21 Principal Balance
180 LP Convertible Note	09/24/13	09/25/15	160,000	—	—	—	(160,000)	—
180 LP Convertible Note	06/16/14	06/16/17	10,000	—	—	(10,000)	—	—
180 LP Convertible Note	07/08/14	07/08/17	100,000	—	—	—	(100,000)	—
Total			\$ 270,000	\$ —	\$ —	\$ (10,000)	\$ (260,000)	\$ —

For the year ended December 31, 2020								
	Effective Date	Maturity Date (as amended, if applicable)	01/01/20 Principal Balance	Debt Issued	Unpaid Interest Capitalized to Principal	Amendment to Senior Notes	Conversions to Common Stock	12/31/20 Principal Balance
Amended Senior Notes ⁽¹⁾	07/25/19	08/28/21	\$ 184,604	\$ —	\$ 34,760	\$ 51,396	(270,760)	\$ —
180 LP Convertible Note	09/24/13	09/25/15	160,000	—	—	—	—	160,000
180 LP Convertible Note	06/16/14	06/16/17	10,000	—	—	—	—	10,000
180 LP Convertible Note	07/08/14	07/08/17	100,000	—	—	—	—	100,000
Total			\$ 454,604	\$ —	\$ 34,760	\$ 51,396	\$ (270,760)	\$ 270,000

Dominion, Kingsbrook and Alpha Convertible Promissory Note

Upon closing of the Business Combination, the Dominion (defined below), Kingsbrook and Alpha (defined below) Convertible Promissory Notes were assumed.

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NOTE 11 — CONVERTIBLE NOTES PAYABLE (cont.)**Dominion Convertible Promissory Notes**

	Dominion		
	Principal	Debt Discount	Net
Balance at January 1, 2020	\$ —	\$ —	\$ —
Assumption of Note	1,805,556	—	1,805,556
Debt discount at assumption	—	(722,966)	(722,966)
Amortization of debt discount	—	134,134	134,134
Impact of extinguishment	—	588,832	588,832
Impact of conversion	(972,222)	—	(972,222)
Balance at December 31, 2020	\$ 833,334	\$ —	\$ 833,334
Impact of conversion	(833,334)	—	(833,334)
Balance at December 31, 2021	\$ —	\$ —	\$ —

On June 12, 2020 (the “Dominion Issue Date”), KBL entered into a \$1,666,667 10% Secured Convertible Promissory Note and \$138,889 10% Senior Secured Convertible Extension Promissory Note (together the “Dominion Convertible Promissory Notes”) with Dominion Capital LLC (“Dominion”), which was issued to Dominion in conjunction with 400,000 shares of common stock (the “Dominion Commitment Shares”). In conjunction with the transaction, KBL entered into a series of Leak Out Agreements in which certain parities agreed that they would not sell, dispose or otherwise transfer, in aggregate more than 5% of the composite daily trading volume of the common stock of KBL. Pursuant to the Leak-Out Agreement between the KBL and Caravel CAD Fund Ltd., KBL issued 404,245 restricted shares of common stock (“Leak-Out Shares”).

The Dominion Convertible Promissory Notes had a debt discount due to original issue discount, third party fees directly attributed to the issuance, leak-out shares, a derivative liability, a beneficial conversion feature and warrants. The debt discount assumed at the Business Combination for this note was \$722,996, which has been amortized to interest expense over the term of the debt. See Note 9 — Derivative Liabilities for more information on the derivative liabilities related to this note.

The Company has agreed to pay the principal amount, together with interest at the annual rate of 10% (unless the Company defaults, which increases the interest rate to 15%) (including 10% guaranteed interest), with principal and accrued interest on the Dominion Convertible Promissory Notes due and payable on February 11, 2021 (the “Dominion Maturity Date”), unless converted under terms and provisions as set forth within the Dominion Convertible Promissory Notes. The Dominion Convertible Promissory Notes provided Dominion with the right to convert, at any time, all or any part of the outstanding principal and accrued but unpaid interest into shares of the Company’s common stock at a conversion price of \$5.28 per share. The Dominion Convertible Promissory Notes required the Company to reserve at least 868,056 and 114,584 shares of common stock from its authorized and unissued common stock to provide for all issuances of common stock under the 10% Secured Convertible Promissory Note and 10% Senior Secured Convertible Extension Promissory Note, respectively. However, the Dominion Convertible Promissory Notes provided that the aggregate number of shares of common stock issued to the Dominion under the Dominion Convertible Promissory Notes shall not exceed 4.99% of the total number of shares of common stock outstanding as of the closing date unless the Company obtains stockholder approval of the issuance (the “the Beneficial Ownership Limitation”). Dominion, upon not less than sixty-one (61) days’ prior notice to the Company, may increase or decrease the Beneficial Ownership Limitation; provided, that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the Dominion Convertible Promissory Notes held by Dominion.

During the year ended December 31, 2021, the Company recorded interest expense of \$31,080 as of December 31, 2021 associated with the Dominion Convertible Promissory Notes.

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NOTE 11 — CONVERTIBLE NOTES PAYABLE (cont.)

During the year ended December 31, 2020, the Company recorded interest expense and amortization of debt discount of \$77,067 and \$134,164, respectively, and accrued interest of \$52,254 as of December 31, 2020 associated with the Dominion Convertible Promissory Notes.

See Convertible Debt Conversions of the Dominion, Kingsbrook and Alpha Convertible Promissory Notes further on in this note for the details related to the 2020 and 2021 conversions of the notes.

Kingsbrook Convertible Promissory Note

	Kingsbrook		
	Principal	Debt Discount	Net
Balance at January 1, 2020	\$ —	\$ —	\$ —
Assumption of Note	1,796,411	—	1,796,411
Debt discount at assumption	—	(685,615)	(685,615)
Amortization of debt discount	—	127,227	127,227
Impact of extinguishment	—	558,388	558,388
Impact of conversion	(1,695,411)	—	(1,695,411)
Balance at December 31, 2020	\$ 101,000	\$ —	\$ 101,000
Impact of conversion	(101,000)	—	(101,000)
Balance at December 31, 2021	\$ —	\$ —	\$ —

On June 12, 2020 (the “Kingsbrook Issue Date”), KBL entered into a \$1,657,522 10% Secured Convertible Promissory Note and \$138,889 10% Senior Secured Convertible Extension Promissory Note (together with “Kingsbrook Convertible Promissory Notes”) with Kingsbrook Opportunities Master Fund LP (“Kingsbrook”), which was issued to Kingsbrook in conjunction with 250,000 shares of common stock (the “Kingsbrook Commitment Shares”).

The Kingsbrook Convertible Promissory Notes had a debt discount due to original issue discount, third party fees directly attributed to the issuance, a derivative liability, a beneficial conversion feature and warrants. The debt discount assumed at the Business Combination for this note was \$685,615, which has been amortized to interest expense over the term of the debt. See Note 9 — Derivative Liabilities for more information on the derivative liabilities related to this note.

The Company has agreed to pay the principal amount, together with guaranteed interest at the annual rate of 10% (unless the Company defaults, which increases the interest rate to 15%), with principal and accrued interest on the Kingsbrook Convertible Promissory Notes due and payable on February 11, 2021 (the “Maturity Date”), unless converted under terms and provisions as set forth within the Kingsbrook Convertible Promissory Notes. The Kingsbrook Convertible Promissory Notes provide Kingsbrook with the right to convert, at any time, all or any part of the outstanding principal and accrued but unpaid interest into shares of the Company’s common stock at a conversion price of \$5.28 per share. The Kingsbrook Convertible Promissory Notes require the Company to reserve at least 1,823,275 and 114,584 shares of common stock from its authorized and unissued common stock to provide for all issuances of common stock under the 10% Secured Convertible Promissory Note and 10% Senior Secured Convertible Extension Promissory Note, respectively. However, the Kingsbrook Convertible Promissory Notes provide that the aggregate number of shares of common stock issued to Kingsbrook under the Kingsbrook Convertible Promissory Notes shall not exceed 4.99% of the total number of shares of common stock outstanding as of the closing date unless the Company has obtained stockholder approval of the issuance (the “the Beneficial Ownership Limitation”). Kingsbrook, upon not less than sixty-one (61) days’ prior notice to the Company, may increase or decrease the Beneficial Ownership Limitation; provided, that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the Kingsbrook Convertible Promissory Notes held by Kingsbrook.

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NOTE 11 — CONVERTIBLE NOTES PAYABLE (cont.)

During the year ended December 31, 2021, the Company recorded interest expense of \$10,010 as of December 31, 2021 associated with the Kingsbrook Convertible Promissory Notes.

During the year ended December 31, 2020, the Company recorded interest expense and amortization of debt discount of \$61,315 and \$127,228, respectively, and accrued interest of \$0 as of December 31, 2020 associated with the Kingsbrook Convertible Promissory Notes.

See Convertible Debt Conversions of the Dominion, Kingsbrook and Alpha Convertible Promissory Notes further on in this note for the details related to the 2020 and 2021 conversions of the notes.

Alpha Convertible Promissory Note

	Alpha		
	Principal	Debt Discount	Net
Balance at January 1, 2020	\$ —	\$ —	\$ —
Assumption of Note	1,111,111	—	1,111,111
Debt discount at assumption	—	(800,421)	(800,421)
Amortization of debt discount	—	94,786	94,786
Impact of extinguishment	—	705,635	705,635
Impact of conversion	(495,000)	—	(495,000)
Balance at December 31, 2020	\$ 616,111	\$ —	\$ 616,111
Impact of extinguishment	(316,111)	—	(316,111)
Impact of conversion	(300,000)	—	(300,000)
Balance at December 31, 2021	\$ —	\$ —	\$ —

On September 8, 2020 (the “Alpha Issue Date”), KBL entered into a \$1,111,111 10% Secured Convertible Promissory Note (the “Alpha Convertible Promissory Note”) with Alpha Capital Anstalt (“Alpha”), which was issued to the Holder in conjunction with 100,000 shares of common stock (the “Alpha Capital Anstalt Commitment Shares”).

The Alpha Convertible Promissory Notes had a debt discount due to original issue discount, third-party fees directly attributed to the issuance, a derivative liability, a beneficial conversion feature and warrants. The debt discount assumed at the Business Combination for this note was \$800,421, which has been amortized to interest expense over the term of the debt. See Note 9 — Derivative Liabilities for more information on the derivative liabilities related to this note.

The Company has promised to pay the principal amount, together with guaranteed interest at the annual rate of 10% (unless the Company defaults, which increases the interest rate to 15%), with principal and accrued interest on the Alpha Convertible Promissory Note due and payable on April 7, 2021 (the “Maturity Date”), unless converted under terms and provisions as set forth within the Alpha Capital Anstalt Convertible Note. The Alpha Convertible Promissory Note provides Alpha with the right to convert, at any time, all or any part of the outstanding principal and accrued but unpaid interest into shares of the Company’s common stock at a conversion price of \$5.28 per share. The Alpha Convertible Promissory Note provides that the aggregate number of shares of common stock issued to Alpha under the Alpha Convertible Promissory Note shall not exceed 4.99% of the total number of shares of common stock outstanding as of the closing date unless the Company has obtained stockholder approval of the issuance (the “the Beneficial Ownership Limitation”). Alpha, upon not less than sixty-one (61) days’ prior notice to the Company, may increase or decrease the Beneficial Ownership Limitation; provided, that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the Alpha Convertible Promissory Note held by Alpha.

During the year ended December 31, 2021, the Company recorded interest expense of \$58,510 as of December 31, 2021 associated with the Alpha Convertible Promissory Notes.

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NOTE 11 — CONVERTIBLE NOTES PAYABLE (cont.)

During the year ended December 31, 2020, the Company recorded interest expense and amortization of debt discount of \$28,962 and \$94,787, respectively, and accrued interest of \$47,504 as of December 31, 2020 associated with the Alpha Convertible Promissory Notes.

See Convertible Debt Conversions of the Dominion, Kingsbrook and Alpha Convertible Promissory Notes further on in this note for the details related to the 2020 and 2021 conversions of the notes.

2020 Extinguishment of the Dominion, Kingsbrook and Alpha Convertible Promissory Notes

On November 25, 2020, the Company entered into an amended agreement with Dominion, and Alpha to amend the secured convertible promissory notes in the original aggregate principal amount of \$4,713,078 (after giving effect to a 10% original issue discount) that the Company issued pursuant to a purchase agreement (the “Notes”) so that the fixed conversion price of the Notes, during the 90 day period following November 6, 2020, shall be equal to the lower of: (A) ninety-six percent (96%) of the lowest volume weighted average price of the common stock of the Company on the NASDAQ Capital Market during the five trading day period ending on the trading day immediately prior to the applicable conversion date and (B) \$5.28; provided, that in no event shall the fixed conversion price be lower than \$2.00 (in each case, as appropriately adjusted for any stock dividend, stock split, stock combination, reclassification or similar transaction that proportionately decreases or increases the number of shares of common stock prior to such date). No other changes were made to the Notes as a result of the amendment agreement. The change of the conversion price of the Notes, triggered the most-favored-nation clause and changed the conversion price of the Series A Convertible Preferred Stock to be the same price as the Notes.

The Company determined that while the cash flows of the Secured Convertible Notes did not change upon the amendment (maturity and interest rate remained the same), the increase of the fair value of the conversion feature exceeded 10% of the carrying value of the Secured Convertible Notes prior to the amendment, and accordingly, the amendment should be accounted for as an extinguishment. In recording the extinguishment, the Company compared the reacquisition price of the post-amended Secured Convertible Notes in the aggregate amount of \$5,932,778 to the net carrying value of the derivative liability and pre-amended Secured Convertible Notes in the aggregate amount of \$2,880,524. As a result, the Company recorded a loss on extinguishment in the aggregate amount of \$3,052,254.

2020 Convertible Debt Conversions of the Dominion, Kingsbrook and Alpha Convertible Promissory Notes

The holders of the Secured Convertible Promissory Notes elected to convert principal and interest into shares of the Company’s common stock during 2020 as follows:

	Principal Balance Converted	Interest Converted	Derivative Liabilities Converted	Total Amount Converted	Common Shares Issued	Fair Value of Shares Issued	Loss on Extinguishment of Convertible Notes
Dominion Convertible Promissory Note	\$ 972,222	\$ 97,222	\$ 201,216	\$ 1,270,660	464,287	\$ 1,275,525	\$ 4,865
Kingsbrook Convertible Promissory Note	1,695,411	169,541	378,335	\$ 2,243,287	816,769	2,198,155	(45,132)
Alpha Capital Convertible Promissory Note	495,000	12,528	123,485	\$ 631,013	238,572	691,304	60,291
Total	\$ 3,162,633	\$ 279,291	\$ 703,036	\$ 4,144,960	1,519,628	\$ 4,164,984	\$ 20,024

After the closing of the Business Combination, from November 27, 2020 to December 31, 2020, the holders of the Company’s convertible promissory notes converted an aggregate of \$3,441,924, which includes accrued interest of \$279,291, which is owed under such convertible notes into an aggregate of 1,519,628 shares of our common stock, pursuant to the terms of such notes, as amended, at conversion prices of between \$2.00 and \$2.31 per share.

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NOTE 11 — CONVERTIBLE NOTES PAYABLE (cont.)

Default of Certain Convertible Promissory Notes

On December 31, 2020, the Company filed a Current Report on Form 8-K with the SEC which disclosed, among other things, that the condensed consolidated financial statements of the Company, which were prepared based on the information and representations received from the former KBL management, for the interim period ended September 30, 2020, should no longer be relied upon due to errors in the condensed consolidated financial statements and should be restated. As a result, the Company recognized a derivative liability related to an arguable default of the Secured Convertible Notes, which was valued using a Monte Carlo Simulation.

2021 Convertible Debt Conversion/Extinguishment of the Dominion, Kingsbrook and Alpha Convertible Promissory Notes

The holders of the Secured Convertible Promissory Notes elected to convert principal and interest into shares of the Company’s common stock during 2021 as follows:

	Principal Balance Converted	Interest Converted	Derivative Liabilities Converted	Total Amount Converted	Common Shares Issued	Fair Value of Shares Issued	Loss on Extinguishment of Convertible Notes
Dominion Convertible Promissory Note	\$ 833,333	\$ 83,333	\$ 133,033	\$ 1,049,700	338,393	\$ 1,255,037	\$ (205,337)
Kingsbrook Convertible Promissory Note	101,000	10,100	136,800	247,900	33,770	174,253	73,647
Alpha Capital Convertible Promissory Note	300,000	12,417	321,370	633,787	94,960	511,834	121,953
Total	\$ 1,234,333	\$ 105,850	\$ 591,203	\$ 1,931,387	467,123	\$ 1,941,124	\$ (9,737)

During the third quarter of 2021, certain noteholders elected to convert certain convertible notes payable with an aggregate principal balance of \$1,234,333 and an aggregate accrued interest balance of \$105,850 into an aggregate of 467,123 shares of the Company’s common stock at conversion prices ranging from \$2.45-\$3.29 per share. The shares issued upon the conversion of the convertible promissory notes had a fair value at issuance of \$1,941,124.

Alpha — Extinguishment

On February 3, 2021, an event of default was triggered under a convertible note held by Alpha Capital Anstalt (“Alpha” and the “Alpha Capital Note”), which resulted in an increase in the fair value of the bifurcated derivative liability (the default provision) associated with the remaining principal of the Alpha Capital Note.

On July 29, 2021, the Company reached a settlement agreement with Alpha (the “Alpha Settlement Agreement”), which was signed on July 31, 2021, which provided for Alpha to convert the remaining principal and accrued interest associated with the convertible note in exchange for 150,000 shares of the Company’s common stock plus a three-year warrant to purchase 25,000 additional shares of the Company’s common stock at an exercise price of \$7.07 per share. The Company determined that the shares and warrants had an aggregate value of \$1,156,177 as of July 29, 2021, which exceeded the aggregate \$1,109,008 carrying value of the combined principal, accrued interest and derivative liability associated with the Alpha Capital Note as of July 29, 2021. Because the settlement amount provides additional information about a situation that existed as of July 29, 2021, the Company recorded an accrual as of June 30, 2021 for the \$47,169 difference between the value of the securities offered in settlement and the carrying value of the liabilities, which was reflected within (loss) gain on settlement of liabilities in the accompanying condensed consolidated statements of operations. On July 29, 2021, the \$1,156,177 aggregate carrying value of the principal, accrued interest, derivative liability and settlement accrual associated with the Alpha Capital Note were extinguished while the \$1,060,500 fair value of the common stock was recorded within equity and the \$95,677 fair value of the Alpha Warrant was recorded as a derivative liability (see Note 9, Derivative Liabilities for additional information).

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NOTE 11 — CONVERTIBLE NOTES PAYABLE (cont.)

Senior Notes

On July 25, 2019, the Company issued Senior Secured Notes (the “Senior Notes”) totaling \$1,200,000 of which an aggregate of \$175,000 was issued to the former Chief Executive Officer and a director of the Company. The Senior Notes bear interest at a rate of 15% per annum and matured on November 15, 2019. Any accrued and unpaid interest portion is capitalized to principal on a monthly basis. Pursuant to the terms of the Senior Notes, the maturity date may be extended an additional 30 days at the option of the Company if the Securities and Exchange Commission’s review of the documents filed in connection with the Business Combination has taken more than 30 days. In the event of an event of default: a) the Company is required to notify the holders of these notes (the “Holders”) within one business day of any such occurrence; b) the interest rate increases to 18% per annum; and c) the Holder may require the Company to redeem any or all of the outstanding principal and interest together with a 25% premium.

The Senior Notes rank senior to all outstanding and future indebtedness of the Company and its subsidiaries and are secured by: a) the Company’s equity interests in its subsidiaries; b) guarantees issued by those subsidiaries; and c) assets of those subsidiaries.

The Senior Notes, plus accrued and unpaid interest, and any outstanding late charges, automatically convert into common shares immediately prior to the occurrence of the Business Combination at the conversion price of \$4.23 per share. If the Company issues any shares of its common stock or securities that are effectively common stock equivalents prior to the Business Combination at a price of less than \$4.23 per share, then the conversion price per share will be adjusted so that the Holders receive the same conversion price. The above represents a contingent beneficial conversion feature that will be accounted for when the contingency is resolved.

On January 13, 2020, the Company and holders of a series of Senior Secured Notes (the “Senior Notes”) agreed to exchange the Senior Notes for new Senior Secured Notes (the “Amended Senior Notes”) with amended terms (the “Senior Note Amendments”). Pursuant to the Amended Senior Notes, the note holders waived all events of default associated with the Senior Notes and the aggregate principal amount and accrued interest of \$1,282,205 and \$6,411, respectively, was converted to principal in the aggregate amount of \$1,846,052 (consisting of \$1,282,205 of the outstanding principal of the Senior Notes, \$6,411 of accrued interest reclassified to principal, \$200,000 of restructuring fees and \$357,436 of redemption premiums), of which \$186,988 and \$935, of aggregate principal and accrued interest, respectively, owed to the former Chief Executive Officer and a director of the Company, was converted to principal in the aggregate amount of \$239,320 (consisting of \$186,988 of the outstanding principal of the Senior Notes, \$935 of accrued interest reclassified to principal and \$51,396 of redemption premiums). See above in Note 11 — Convertible Notes Payable for a table displaying the impact of the increase in the principal under the column titled Amendment to Senior Note and Bridge Notes.

The Company accounted for the amendment to the Senior Notes as note extinguishments, since the present value of future cash flows under the Amended Senior Notes was substantially different than the future cash flows under the Senior Notes. Accordingly, the Company recognized a loss on extinguishment of \$886,736, consisting of the issuance of the Amended Senior Note in the aggregate principal amount of \$1,846,052, partially offset by the derecognition of the aggregate carrying amount of the extinguished Senior Notes of \$1,288,616, plus the immediately recognized beneficial conversion feature of \$329,300 arising from the modified conversion terms of the Amended Senior Notes.

The Amended Senior Notes rank senior to all outstanding and future indebtedness of the Company and its subsidiaries and are secured by: a) the Company’s equity interests in its subsidiaries; b) guarantees issued by those subsidiaries; and c) assets of those subsidiaries.

The Amended Senior Notes were convertible into common stock of the Company at any time following issuance until maturity and automatically convert into common stock of the Company immediately prior to the occurrence of the Business Combination, in either event, at a conversion price of \$4.23 per share. If the Company issues any shares

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NOTE 11 — CONVERTIBLE NOTES PAYABLE (cont.)

of its common stock, or securities that are effectively common stock equivalents, prior to the Business Combination at a price of less than \$4.23 per share, then the conversion price per share would be adjusted to the price at which those common shares (or equivalents) were issued.

The Amended Senior Notes bear interest at a rate of 15% per annum and matured in February 2020. On June 12, 2020, the Company entered into an additional amendment with each noteholder to extend the maturity dates from February 2020 to August 2021. Unpaid interest is reclassified to the principal on a monthly basis.

In the event of default: a) the Company is required to notify the holders of these notes within one business day of any such occurrence; b) the interest rate increases to 18% per annum; and c) the holder may require the Company to redeem any or all of the outstanding principal and interest together with a 25% premium.

Additional Amendment to an Amended Senior Note

On June 12, 2020, the Company, KBL, and the holder of an Amended Senior Note in the aggregate principal amount of \$1,661,136 agreed that (i) such Amended Senior Note will automatically convert into 404,265 shares of the Company's common stock upon the Business Combination, and (ii) the holder of such Amended Senior Note and its affiliates shall not sell or dispose more than 5% of the daily trading volume of such shares of common stock as reported by Bloomberg, LP.

Extinguishment of Senior Note and Issuance of New Note

On June 12, 2020, the Company, KBL, certain investors (the "Purchasers") and the holder (the "Initial Purchaser") of an Amended Senior Note in the aggregate principal and interest amount of \$1,528,360 (consisting of principal of \$1,510,113 and accrued interest payable of \$18,247) entered into a Securities Purchase Agreement pursuant to which (i) the Amended Senior Note was extinguished, and (ii) KBL sold to the Purchasers a secured promissory note which is secured by the intellectual property of the Company. Such transaction closed on June 29, 2020. See above in Note 11 — Convertible Notes Payable for a table displaying the impact of extinguishing the aforementioned \$1,510,113 of principal under the column titled Amendment to Senior Note and Bridge Notes. Concurrent with the transaction, on June 12, 2020, the Company, KBL, the Purchasers and Kingsbrook entered into a guaranty agreement pursuant to which the Company is a guarantor to the notes issued by KBL to the Purchasers and Kingsbrook. As of September 30, 2020, the Company determined that contingent payments under the guaranty agreement were not probable.

Additionally, in connection with the Securities Purchase Agreement, the Company issued the Initial Purchaser a non-convertible loan payable in the principal amount of \$150,000 which bears interest at a rate of 15% per annum, payable at maturity. The note matures on August 31, 2021 (see Note 10 — Loans Payable). On March 3, 2021, the Company repaid this loan in cash for an aggregate \$162,452, which included the principal of \$150,000 and accrued interest of \$12,452.

Conversion of Senior Notes at Close of Business Combination

On November 6, 2020, upon the consummation of the Business Combination, the Company issued 482,894 shares of common stock, par value \$0.0001, to the holders of the Senior Notes, as a result of the automatic conversion of promissory notes in the principal amount of about \$2,039,539 and accrued interest of \$77,779, or an aggregate of \$2,117,318, as per the closing of the Merger pursuant to the Business Combination Agreement, dated as of July 25, 2019, by and among the Company, KBL Merger Sub, Inc., 180 Life Corp., Katexco Pharmaceuticals Corp., CannBioRex Pharmaceuticals Corp., 180 Therapeutics L.P. and Lawrence Pemble in his capacity as stockholder representative.

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NOTE 11 — CONVERTIBLE NOTES PAYABLE (cont.)

Bridge Notes

On January 3, 2020 and December 27, 2019, the Company issued convertible bridge notes in the aggregate amount of \$82,500 and \$250,000 under the same terms. The total outstanding principal amount of convertible bridge notes of \$332,500 (the “Bridge Notes”) and the respective accrued interest will automatically convert into a portion of the 17.5 million shares of KBL common stock to be received upon the consummation of the Business Combination Agreement at a conversion price equal to the lesser of \$6.00 per KBL share or 60% of the implied valuation at such time, as defined. The Bridge Notes accrue interest at 15% per annum. The contingently adjustable, non-bifurcated beneficial conversion feature associated with the convertible note will be accounted for at the time the contingency is resolved. The Bridge Notes matured on June 30, 2020. The Company may elect to prepay the Bridge Notes at any time without penalty, however, the holder may elect to receive shares of common stock of the Company in lieu of prepayment at the holder’s discretion. The Company analyzed the embedded conversion option of the convertible note at issuance and determined the embedded conversion option contains a contingent beneficial conversion feature that will be accounted for when the contingency is resolved. See below for further details regarding the amendment of the Bridge Notes and the conversion terms.

Amended Bridge Notes

On July 7, 2020, effective June 29, 2020, the Company entered into an amendment agreement with each Bridge Noteholder (the “Amended Bridge Notes”). Pursuant to the terms of the Amended Bridge Notes, the principal under each Amended Bridge Note is increased by 10% and the Amended Bridge Notes mature upon the earlier of (i) the date that the Registration Statement, which refers to the Form S-4 Registration Statement filed with the Commission by KBL, relating to the Business Combination, including the exchange of shares of common stock of the Company for shares of common stock of KBL, which is declared effective by the SEC; (ii) such date in which all amounts due and owing under the Amended Bridge Notes become due and payable pursuant to the terms of the agreement; and August 28, 2021 (“Maturity Date”). See above in Note 11 — Convertible Notes Payable for a table displaying the impact of the increase in the 10% of principal under the column titled Amendment to Senior Note and Bridge Notes. The Amended Bridge Notes can be converted at the following options:

- at any time prior to the Maturity Date, at the option of the holder, the remaining outstanding principal amount of the Amended Bridge Notes, and any accrued but unpaid interest, may be converted into shares of common stock; or
- automatically at the Maturity Date, the remaining outstanding principal amounts of these Amended Bridge Notes and any accrued but unpaid interest, will automatically convert (“Automatic Conversion”).

Depending on the timing of the conversion, the holder will receive either:

- shares of common stock of the Company, if the Business Combination has not occurred prior to such Maturity Date; or
- shares of KBL if the Business Combination has occurred prior to such Maturity Date.

In either case above, the number of conversion shares equal to (A) the outstanding principal amount plus interest being converted, divided by (B) the lesser of (i) \$4.23 per share or (ii) the per share price equal to 0.60 multiplied by the per share price of one share of common stock sold by the Company as part of a PIPE transaction (or the deemed value of one share of common stock as reasonably determined by the board of directors of the Company sold in the PIPE transaction if the securities sold in the PIPE transaction include units or other securities convertible into shares of common stock), subject to equitable adjustment for any stock splits, combinations or similar events affecting the Company. As per the agreement, a PIPE transaction is defined as a private placement or public offering of shares of common stock of KBL for purposes of raising additional capital to fund the Business Combination or other matters. The Company determined that the embedded features of the Amended Bridge Notes were (i) a fixed price conversion option which represented a beneficial conversion feature of de minimis value and (ii) a redemption feature with de minimis value.

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NOTE 11 — CONVERTIBLE NOTES PAYABLE (cont.)

Second Amendment to the Bridge Notes

On October 7, 2020, the Company entered into an additional amendment with each Amended Bridge Noteholder pursuant to which the Amended Bridge Notes will no longer mature upon the date that the Registration Statement is declared effective by the SEC. Since the change in cash flows was not more than 10%, this amendment was deemed to be a modification.

Conversions of Bridge Notes

On March 8, 2021, the holders of the Company's convertible bridge notes, which were issued in December 27, 2019 and January 3, 2020 to various purchasers, converted an aggregate of \$432,384, which included accrued interest of \$66,633 owed under such convertible bridge notes, into an aggregate of 158,383 shares of common stock pursuant to the terms of such notes, as amended, at a conversion price of \$2.73 per share.

180 LP Convertible Notes

In connection with the Reorganization, the Company assumed \$270,000 of debt related to convertible notes payable (the "Notes"), of which \$10,000 is owed to the former Chief Executive Officer of 180 LP and \$260,000 is owed to a founder and director of the Company.

Principal of \$160,000 due under the Notes accrues interest at a rate of 5.0% per annum and principal of \$110,000, accrues interest at 2.5% per annum. Interest is compounded annually. Effective upon the closing of the first issuance of convertible preferred units (or units with similar rights) with proceeds of at least \$1,000,000 (the "Qualified Financing"), all of the outstanding principal and interest under these Notes will automatically be converted into other equity interests of the Company of the same class issued to other investors in the Qualified Financing, at a conversion price equal to 80% of the price per unit of the Qualified Financing securities paid by the other investors. The Notes contain contingent beneficial conversion features, which will be accounted for at the time the conversion price is known, and the contingency is resolved.

During the second quarter of 2021, the Company repaid a certain related party convertible note payable in cash for the principal amount of \$10,000 and \$1,873 of accrued interest. During the third quarter of 2021, the \$260,000 remaining principal balance of convertible notes payable owed to a related party, plus \$96,208 of related accrued interest, was converted into 59,368 shares of the Company's common stock, pursuant to a debt conversion agreement dated September 30, 2021.

Interest on Convertible Notes

During the years ended December 31, 2021 and 2020, the Company recorded interest expense of \$109,767 and \$915,371, respectively, related to convertible notes payable, and recorded interest expense — related parties of \$42,529 and \$32,452, respectively, related to convertible notes payable — related parties. During the years ended December 31, 2021 and 2020, the Company capitalized an aggregate of \$0 and \$228,099 of accrued interest, respectively, and \$0 and \$34,760 of accrued interest — related parties, respectively, to note principal.

As of December 31, 2021 and 2020, accrued interest expense related to convertible notes payable was \$0 and \$182,181, respectively, and accrued interest expense — related parties related to convertible notes payable — related parties was \$0 and \$124,833, respectively, which is included in accrued expenses and accrued expenses — related parties, respectively, on the accompanying consolidated balance sheets.

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NOTE 12 — COMMITMENTS AND CONTINGENCIES

Litigation and Other Loss Contingencies

The Company records liabilities for loss contingencies arising from claims, assessments, litigation, fines, penalties and other sources when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. The Company has no liabilities recorded for loss contingencies as of December 31, 2021. See Potential Legal Matters — Action Against Former Executives of KBL and Cantor Fitzgerald & Co. Breach of Contract below for information related to a December 31, 2021 accrual.

Potential Legal Matters

Action Against Former Executive of KBL

On September 1, 2021, the Company initiated legal action in the Chancery Court of Delaware against Dr. Marlene Krauss (“Dr. Krauss”) and two of her affiliated companies, KBL IV Sponsor, LLC and KBL Healthcare Management, Inc. (collectively, the “KBL Affiliates”) for, among other things, non-disclosure of financial liabilities in the original KBL June 30, 2020 and September 30, 2020 Quarterly Reports on Form 10-Q of the matters disclosed in Note 14 (as restated) of the Company’s September 30, 2020 financial statements in the Company’s amended Quarterly Report on Form 10-Q filed on February 5, 2021. The Company is seeking damages resulting from discrepancies in the financial statements of KBL, unauthorized monetary transfers by Dr. Krauss, and inappropriate redemption of the shares associated with KBL. There can be no assurance that the Company will be successful in its legal actions. As of December 31, 2021, the Company recorded a legal accrual of \$250,000 to cover the legal expenses of the former executives of KBL.

On October 5, 2021, Dr. Krauss and the KBL Affiliates filed an Answer, Counterclaims and Third-Party Complaint (the “Krauss Counterclaims”) against the Company and twelve individuals who are, or were, directors and/or officers of the Company, i.e., Marc Feldmann, Lawrence Steinman, James N. Woody, Teresa DeLuca, Frank Knuettel II, Pamela Marrone, Lawrence Gold, Donald A. McGovern, Jr., Russell T. Ray, Richard W. Barker, Shoshana Shendelman and Ozan Pamir (collectively, the “Third-Party Defendants”). On October 27, 2021, the Company and Ozan Pamir filed an Answer to the Krauss Counterclaims, and all of the other Third-Party Defendants filed a Motion to Dismiss as to the Third-Party Complaint.

On January 28, 2022, in lieu of filing an opposition to the Motion to Dismiss, Dr. Krauss and her affiliate companies filed a Motion for leave to file amended counterclaims and third-party complaint, and to dismiss six of the current and former directors previously named, i.e., to dismiss Teresa DeLuca, Frank Knuettel II, Pamela Marrone, Russell T. Ray, Richard W. Barker and Shoshana Shendelman. The Motion was granted by stipulation and, on February 24, 2022, Dr. Krauss filed an amended Answer, Counterclaims and Third-Party Complaint (the “Amended Counterclaims”). In essence, the Amended Counterclaims allege (a) that the Company and the remaining Third-Party Defendants breached fiduciary duties to Dr. Krauss by making alleged misstatements against Dr. Krauss in SEC filings and failing to register her shares in the Company so that they could be traded, and (b) the Company breached contracts between the Company and Dr. Krauss for registration of such shares, and also failed to pay to Dr. Krauss the amounts alleged to be owing under a promissory note in the principal amount of \$371,178, plus an additional \$300,000 under Dr. Krauss’ resignation agreement. The Amended Counterclaims seek unspecified amounts of monetary damages, declaratory relief, equitable and injunctive relief, and attorney’s fees and costs.

On March 16, 2022, Donald A. McGovern, Jr. and Lawrence Gold filed a Motion to Dismiss the Amended Counterclaims against them, and the Company and the remaining Third-Party Defendants filed an Answer to the Amended Counterclaims denying the same. The Company and the Third-Party Defendants intend to continue to vigorously defend against all of the Amended Counterclaims, however, there can be no assurance that they will be successful in the legal defense of such Amended Counterclaims.

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NOTE 12 — COMMITMENTS AND CONTINGENCIES (cont.)

Action Against the Company by Dr. Krauss

On August 19, 2021, Dr. Krauss initiated legal action in the Chancery Court of Delaware against the Company. The original Complaint sought expedited relief and made the following two claims: (1) it alleged that the Company is obligated to advance expenses including, attorney's fees, to Dr. Krauss for the costs of defending against the SEC and certain Subpoenas served by the SEC on Dr. Krauss; and (2) it alleged that the Company is also required to reimburse Dr. Krauss for the costs of bringing this lawsuit against the Company. On or about September 3, 2021, Dr. Krauss filed an Amended and Supplemental Complaint (the "Amended Complaint") in this action, which added the further claims that Dr. Krauss is also allegedly entitled to advancement by the Company of her expenses, including attorney's fees, for the costs of defending against the Third-Party Complaint in the Tyche action referenced below, and the costs of defending against the Company's own Complaint against Dr. Krauss as described above. On or about September 23, 2021, the Company filed its Answer to the Amended Complaint in which the Company denied each of Dr. Krauss' claims and further raised numerous affirmative defenses with respect thereto.

On November 15, 2021, Dr. Krauss filed a Motion for Summary Adjudication as to certain of the issues in the case, which was opposed by the Company. A hearing on such Motion was held on December 7, 2021, and, on March 7, 2022, the Court issued a decision in the matter denying the Motion for Summary Adjudication in part and granting it in part. The Court then issued an Order implementing such a decision on March 29, 2022. The parties will now engage in proceedings set forth in that implementing Order. No monetary amounts have yet been determined as to any sums that the Company may be required to pay to Dr. Krauss in this regard.

Action Against Tyche Capital LLC

This is a litigation case which the Company commenced and filed against defendant Tyche Capital LLC ("Tyche") in the Supreme Court of New York, in the County of New York, on April 15, 2021. In its Complaint, the Company alleged claims against Tyche arising out of Tyche's breach of its written contractual obligations to the Company as set forth in a "Guarantee And Commitment Agreement" dated July 25, 2019, and a "Term Sheet For KBL Business Combination With CannBioRex" dated April 10, 2019 (collectively, the "Subject Guarantee"). The Company alleges in its Complaint that, notwithstanding demand having been made on Tyche to perform its obligations under the Subject Guarantee, Tyche has failed and refused to do so, and is currently in debt to the Company for such failure in the \$6,776,686, together with interest accruing thereon at the rate set forth in the Subject Guarantee.

On or about May 17, 2021, Tyche responded to the Company's Complaint by filing an Answer and Counterclaims against the Company alleging that it was the Company, rather than Tyche, that had breached the Subject Guarantee. Tyche also filed a Third-Party Complaint against six third-party defendants, including three members of the Company's management, Sir Marc Feldman, Dr. James Woody, and Ozan Pamir (collectively, the "Individual Company Defendants"), claiming that they allegedly breached fiduciary duties to Tyche with regards to the Subject Guarantee. In that regard, on June 25, 2021, each of the Individual Company Defendants filed a Motion to Dismiss Tyche's Third-Party Complaint against them.

On November 23, 2021, the Court granted the Company's request to issue an Order of attachment against all of Tyche's shares of the Company's stock that had been held in escrow. In so doing, the Court found that the Company had demonstrated a likelihood of success on the merits of the case based on the fact alleged in the Company's Complaint.

On February 18, 2022, Tyche filed an Amended Answer, Counterclaims and Third-Party Complaint. On March 22, 2022, the Company and each of the Individual Company Defendants filed a Motion to Dismiss all of Tyche's claims. The Company and the Individual Company Defendants intend to continue to vigorously defend against all of Tyche's claims, however, there can be no assurance that they will be successful in the legal defense of such claims.

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NOTE 12 — COMMITMENTS AND CONTINGENCIES (cont.)

Cantor Fitzgerald & Co. Breach of Contract

Cantor Fitzgerald & Co. (“Cantor”) initiated legal action against the Company in the Supreme Court of New York, County of New York on April 22, 2021, alleging causes of action against the Company arising out of a written Fee Agreement dated February 27, 2018. The Complaint alleged that, pursuant to the Fee Agreement and services performed by Cantor thereunder, the Company became indebted to Cantor in the amount of \$1,500,000. The Complaint further alleged that Cantor and the Company subsequently entered into a written Settlement And Release Agreement whereby Cantor agreed to release its monetary claims against the Company in exchange for issuance to Cantor of 150,000 shares of common stock of the Company. The Complaint acknowledged Cantor’s receipt of such common stock from the Company, but alleged that the Company failed to timely file a Registration Statement with the Securities and Exchange Commission, thereby damaging Cantor’s rights relative to the issued shares of common stock. The Complaint asked to declare the Settlement And Release Agreement null and void, and to cause the Company to pay to Cantor the sum of \$1,500,000. The Company never appeared in the case nor responded to the Complaint because the Company and Cantor entered into a Mutual Settlement and General Release Agreement effective as of October 12, 2021 (the “Cantor Settlement”). The Company performed all of its obligations under the Cantor Settlement by paying the sum of \$200,000, and the Cantor Settlement resolved and released all issues by and between the Company and Cantor. As a result thereof, Cantor dismissed the entirety of the case with prejudice on October 21, 2021.

Action Against Ronald Bauer & Samantha Bauer

The Company and two of its wholly-owned subsidiaries, Katexco Pharmaceuticals Corp. and CannBioRex Pharmaceuticals Corp. (collectively, the “Company Plaintiffs”), initiated legal action against Ronald Bauer and Samantha Bauer, as well as two of their companies, Theseus Capital Ltd. and Astatine Capital Ltd. (collectively, the “Bauer Defendants”), in the Supreme Court of British Columbia on February 25, 2022, 2022. The Company Plaintiffs are seeking damages against the Bauer Defendants for misappropriated funds and stock shares, unauthorized stock sales, and improper travel expenses, in the combined sum of at least \$4,395,000 CAD [\$3,460,584 USD] plus the additional sum of \$2,721,036 USD. The Company Plaintiffs are currently seeking to effect service of process on each of the Bauer Defendants. Service of process has been effected on the Bauer Defendants, however, their responses are not yet due. There can be no assurance that the Company Plaintiffs will be successful in this legal action.

EarlyBird Settlement Agreement

On October 17, 2018, KBL entered into an agreement with EarlyBirdCapital, Inc. (“EarlyBird”), whereby EarlyBird would introduce potential targets to the Company on a non-exclusive basis for the purpose of consummating a merger, capital stock exchange, asset acquisition, or other similar business combination. Upon the closing of a transaction, the Company will pay EarlyBird a finder’s fee, payable in cash, of 1% of the value of the transaction, minus any liabilities at closing in excess of \$5,000,000. On April 23, 2021, the Company settled the amounts due pursuant to a certain finder agreement entered into with EarlyBird on October 17, 2017 (the “Finder Agreement”). The Company’s Board of Directors determined it was in the best interests to settle all claims which had been made or could be made with respect to the Finder Agreement and entered into a settlement agreement (the “Settlement Agreement”). Pursuant to the Settlement Agreement, the Company paid EarlyBird a cash payment of \$275,000 and issued 225,000 shares of the Company’s restricted common stock to EarlyBird valued at \$1,973,250.

Yissum Research and License Agreement

On May 13, 2018, CBR Pharma entered into a worldwide research and license agreement with Yissum Research Development Company of the Hebrew University of Jerusalem, Ltd. (“Yissum Agreement”) allowing CBR Pharma to utilize certain patent (the “Licensed Patents”). The Licensed Patents shall expire, if not earlier terminated pursuant to the provisions of the Yissum Agreement, on a country -by-country, product-by-product basis, upon the later of: (i) the date of expiration in such country of the last to expire Licensed Patent included in the Licensed Technology; (ii) the date of expiration of any exclusivity on the product granted by a regulatory or government body in such country; or (iii) the end

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NOTE 12 — COMMITMENTS AND CONTINGENCIES (cont.)

of a period of twenty (20) years from the date of the First Commercial Sale in such country. Should the periods referred to in items (i) or (ii) above expire in a particular country prior to the period referred to in item (iii), above, the license in that country or those countries shall be deemed a license to the Know-How during such post-expiration period.

Royalties will be payable to Yissum if sales of any products which use, exploit or incorporate technology covered by the Licensed Patents (“Net Sales”) are US \$500,000,000 or greater, calculated at 3% for the first annual \$500,000,000 of Net Sales and at 5% of Net Sales thereafter.

Pursuant to the Yissum Agreement, if Yissum achieves the following milestones, CBR Pharma will be obligated to make the following payments:

- i) \$75,000 for successful point of care in animals;
- ii) \$75,000 for submission of the first investigational new drug testing;
- iii) \$100,000 for commencement of one phase I/II trial;
- iv) \$150,000 for commencement of one phase III trial;
- v) \$100,000 for each product market authorization/clearance (maximum of \$500,000); and
- vi) \$250,000 for every \$250,000,000 in accumulated sales of the product until \$1,000,000,000 in sales is achieved.

In the event of an exit event (“Event”), which may be defined as either, a transaction or series of transactions under which the receipt of any consideration, monetary or otherwise by the Company or its shareholders is received in consideration for the sale of shares of the Company or shareholders, or an initial public offering (“IPO”) of the Company, but for greater certainty excludes a reorganization of the Company where the ultimate equity holders of the reorganized entity remain substantially the same as that of the Company, the Company will issue 5% of the issued and outstanding shares, on a fully diluted basis, to Yissum prior to the closing of an Event. These shares will be subject to: (a) as to half of such shares, a lock-up period ending 12 months from the Event date and as to the other half of such shares, a lock-up period ending 24 months from the Event date, and (b) in any event, any resale restrictions (including lock-ups and hold periods). See Note 13 — Stockholders’ Equity (Deficiency) for more information on the shares issued to Yissum as part of the business combination.

CBR Pharma is also party to consulting agreements with Yissum, whereby Yissum has agreed to provide two of its employees as consultants to the Company for \$100,000 per annum per person for a term of three years, commencing May 13, 2018.

On January 1, 2020, CBR Pharma entered into a first amendment to the Yissum Agreement (“First Amendment”) with Yissum, allowing CBR Pharma to sponsor additional research performed by two Yissum professors. Pursuant to the terms of the First Amendment, the Company will pay Yissum \$200,000 per year plus 35% additional for University overhead for the additional research performed by each professor over an 18-month period, starting May 1, 2019. As of December 31, 2021, the Company owes no outstanding balance in connection with the Yissum Agreement (as amended). As of December 31, 2020, the Company owed an outstanding balance of \$418,098 in connection with the Yissum Agreement (as amended), of which \$48,908 was reflected within accounts payable and \$370,000 was included in accrued expenses on the accompanying consolidated balance sheet. During the years ended December 31, 2021 and 2020, the Company recognized research and development expenses of \$443,151 and \$442,453, respectively, related to this agreement.

Additional Yissum Agreement

On November 11, 2019 (the “Effective Date”), CBR Pharma entered into a new worldwide research and license agreement with Yissum (the “Additional Yissum Agreement”), allowing CBR Pharma to obtain a license and perform the research, development and commercialization of the licensed patents (the “Licensed Patents”) in the research of

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NOTE 12 — COMMITMENTS AND CONTINGENCIES (cont.)

cannabinoid salts relating to arthritis and pain management. Within 60 days after the end of the first anniversary of the Effective Date, Yissum will present the Company with a detailed written report summarizing the results of their research.

The Licensed Patents shall expire, if not earlier terminated pursuant to the provisions of the Additional Yissum Agreement, on a country-by-country, product-by-product basis, upon the later of: (i) the date of expiration in such country of the last to expire Licensed Patent included in the Licensed Technology; (ii) the date of expiration of any exclusivity on the product granted by a regulatory or government body in such country; or (iii) the end of a period of twenty (20) years from the date of the first commercial sale in such country. Should the periods referred to in items (i) or (ii) above expire in a particular country prior to the period referred to in item (iii), above, the license in that country or those countries shall be deemed a license to the know-how during such post-expiration period.

Pursuant to the terms of the Additional Yissum Agreement, CBR Pharma paid Yissum a non-refundable license fee of \$70,000 and will pay an aggregate of \$398,250 of research, development and consulting fees over the term of the Additional Yissum Agreement, as well as an annual license maintenance fee of \$25,000, beginning on the first anniversary of the Effective Date.

The Company shall pay Yissum the following amounts in connection with the achievement of the following milestones:

- Submission of the first Investigational New Drug application: \$75,000
- Dosing of first patient in phase II trial: \$100,000
- Dosing of first patient in phase III trial: \$150,000
- Upon first market authorization/clearance: \$150,000
- Upon second market authorization/clearance: \$75,000
- For every \$250,000,000.00 US in accumulated Net Sales of the Product until \$1,000,000,000.00 US in sales: \$250,000

Upon the commercialization of the license, the Company shall pay Yissum a royalty equal to 3% of the first aggregate \$500,000,000 of annual net sales and 5% thereafter. As of December 31, 2021, the Company had no balances in accounts payable and accrued expenses, respectively, relating to the Additional Yissum Agreement; as of December 31, 2020, the Company had \$91,748 and \$298,686 of accounts payable and accrued expenses, respectively, relating to the Additional Yissum Agreement. During the years ended December 31, 2021 and 2020, the Company recorded the purchase of the patents of \$0 and \$72,995, respectively, as an intangible asset to be amortized on a straight-line basis over the remaining lives of the patents and \$246,753 and \$477,411, respectively, of research and development expenses.

Evotec Agreement

On June 7, 2018, Katexco entered into an agreement (the “Drug Discovery Services Agreement”) with Evotec International GmbH (“Evotec”), whereby the Company and Evotec have agreed to negotiate research programs to be conducted by Evotec for the Company. Pursuant to the Drug Discovery Services Agreement, Evotec has agreed to conduct specified research services (the “Project”). The Project is scheduled to be conducted over a 24-month period, over which the Company will fund a minimum of \$4,937,500 and a maximum of \$5,350,250, based on quarterly invoices. During the years ended December 31, 2021 and 2020, the Company expensed \$0 and \$31,979, respectively, of research and development expenses in connection with the Drug Discovery Services agreement, and recorded interest expense of \$0 and \$31,979, respectively, on unpaid balances owed related to the Drug Discovery Services Agreement.

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NOTE 12 — COMMITMENTS AND CONTINGENCIES (cont.)

which is included in accounts payable on the accompanying consolidated balance sheets. As of December 31, 2021 and 2020, unpaid balances owed related to the Drug Discovery Services Agreement amounted to \$0 and \$1,342,299, respectively.

Stanford License Agreement

On May 8, 2018, Katexco entered into a six-month option agreement (the “Stanford Option”) with Stanford University (“Stanford”) under which Stanford granted the Company a six-month option to acquire an exclusive license for patents (the “Licensed Patents”) which are related to biological substances used to treat auto-immune diseases. In consideration for the Stanford Option, the Company paid Stanford \$10,000 (the “Option Payment”), which was creditable against the first anniversary license maintenance fee payment.

On July 25, 2018, Katexco exercised their six-month option and entered into an exclusive license agreement with equity (the “Stanford License Agreement”) with Stanford. Pursuant to the Stanford License Agreement, beginning upon the first anniversary of the effective date, and each anniversary thereafter, the Company will pay Stanford, in advance, a yearly license maintenance fee of \$20,000, on each of the first and second anniversaries and \$40,000 on each subsequent anniversary, which will be expensed on a straight-line basis annually.

Furthermore, the Company will be obligated to make the following milestone payments:

- i) \$100,000 upon initiation of Phase II trial,
- ii) \$500,000 upon the first U.S. Food and Drug Administration approval of a product (the “Licensed Product”) resulting from the Licensed Patents; and
- iii) \$250,000 upon each new Licensed Product thereafter.

The Stanford License Agreement is cancellable by the Company with 30 days’ notice. Royalties, calculated at 2.5% of 95% of net product sales, will be payable to Stanford. Also, the Company will reimburse Stanford for patent expenses as per the agreement. The Company paid Stanford \$20,000 for the annual license maintenance fee that was recorded to prepaid expenses and is being expensed on a straight-line basis over 12 months, which had a zero balance as of December 31, 2021. During the years ended December 31, 2021 and 2020, the Company recorded patent and license fees of \$78,245 and \$32,979, respectively, related to the Stanford License Agreement, which is included in general and administrative expenses on the accompanying statements of operations and comprehensive loss.

Oxford University Agreements

On March 22, 2019, 180 LP entered into a one-year research agreement (the “Research Agreement”) with Oxford pursuant to which 180 LP agreed to pay Oxford approximately \$900,000 to perform certain research and to obtain the exclusive option to negotiate a license to commercially exploit any arising intellectual property as a result of Oxford’s research. During the year ended December 31, 2020, the Company recognized research and development expenses of \$186,391. During the year ended December 31, 2019, the Company recognized research and development expenses of \$396,950 related to the Research Agreement. Because 180 LP is an accounting acquiree in the Reorganization, the contract expense included in the accompanying consolidated statements of operations and comprehensive loss is only for the post-Reorganization period.

On September 18, 2020, CBR Pharma entered into a 3 year research and development agreement (the “3 Year Oxford Agreement”) with Oxford to research and investigate the mechanisms underlying fibrosis in exchange for aggregate consideration of \$1,085,738 (£795,468), of which \$109,192 (£80,000) is to be paid 30 days after the project start date and the remaining amount is to be paid in four equal installments of \$244,136 (£178,867) on the six month anniversary and each of the annual anniversaries of the project start date. The agreement can be terminated by either party upon written notice or if the Company remains in default on any payments due under this agreement for more

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NOTE 12 — COMMITMENTS AND CONTINGENCIES (cont.)

than 30 days. During the year ended December 31, 2021 and 2020, the Company recognized \$364,673 (£264,938) and \$113,433 (£88,385), respectively, of research and development expenses in connection with the 3 Year Oxford Agreement.

On September 21, 2020, CBR Pharma entered into a 2 year research and development agreement (the “2 Year Oxford Agreement”) with Oxford University for the clinical development of cannabinoid drugs for the treatment of inflammatory diseases in exchange for aggregate consideration of \$625,124 (£458,000), of which \$138,917 (£101,778) is to be paid 30 days after the project start date and the remaining amount is to be paid every 6 months after the project start date in 4 installments, whereby \$138,917 (£101,778) is to be paid in the first 3 installments and \$69,456 (£50,888) is to be paid as the final installment. The agreement can be terminated by either party upon written notice or if the Company remains in default on any payments due under this agreement for more than 30 days. During the years ended December 31, 2021 and 2020, the Company recognized \$139,977 (£101,778) and \$78,374 (£61,067) of research and development expenses, respectively, in connection with the 2 Year Oxford Agreement, which is reflected within accrued expenses on the accompanying consolidated balance sheet.

As of December 31, 2021, the Company owed Oxford an aggregate of \$0 for the 2-year agreement. As of December 31, 2020, the Company owed Oxford an aggregate of \$704,960, including \$693,515 of accounts payable and \$11,445 of accrued expense.

On May 24, 2021, the Company entered into a research agreement with the University of Oxford (“Oxford” and the “Fifth Oxford Agreement”), pursuant to which the Company will sponsor work at the University of Oxford to conduct a multi-center, randomized, double blind, parallel group, feasibility study of anti-TNF injection for the treatment of adults with frozen shoulder during the pain-predominant phase. As consideration, the Company agreed to make the following payments to Oxford:

Milestone	Amount Due (excluding VAT)
Upon signing of the Fifth Oxford Agreement	£ 70,546
6 months post signing of the Fifth Oxford Agreement	£ 70,546
12 months post signing of the Fifth Oxford Agreement	£ 70,546
24 months post signing of the Fifth Oxford Agreement	£ 70,546

The Company paid the first milestone of \$97,900 (£70,546) on September 3, 2021, which was due upon signing of the Fifth Oxford Agreement, which was recorded to prepaid expenses and will be amortized over the term of the agreement on a straight-line basis. During the year ended December 31, 2021, the Company recorded \$210,215 (£152,848) of research and development expenses and has a prepaid balance of \$80,852 (£58,788) related to the Fifth Oxford Agreement.

On November 2, 2021, the Company and Oxford University entered into a twenty-year licensed technology agreement of the HMGB1 molecule, which is related to tissue regeneration, whereby Oxford University agreed to license the technology to the Company for research, development and use of the licensed patents. The Company agreed to pay Oxford University for past patent costs \$66,223 (£49,207), an initial License fee of \$13,458 (£10,000), future royalties based on sales and milestones, and an annual maintenance fee of \$4,037 (£3,000). The Company has the option to terminate the agreement after the third anniversary of the agreement.

Kennedy License Agreement

On September 27, 2019, 180 LP entered into a license agreement (the “Kennedy License Agreement”) with the Kennedy Trust for Rheumatology Research (“Kennedy”) exclusively in the U.S., Japan, United Kingdom and countries of the EU, for certain licensed patents (the “Kennedy Licensed Patents”), including the right to grant sublicenses, and the right to research, develop, sell or manufacture any pharmaceutical product (i) whose research, development, manufacture, use, importation or sale would infringe the Kennedy Licensed Patents absent the license granted under

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the Kennedy License Agreement or (ii) containing an antibody that is a fragment of or derived from an antibody whose research, development, manufacture, use, importation or sale would infringe the Kennedy Licensed Patents absent the license granted under the Kennedy License Agreement, for all human uses, including the diagnosis, prophylaxis and treatment of diseases and conditions.

As consideration for the grant of the Kennedy Licensed Patents, 180 LP paid Kennedy an upfront fee of GBP £60,000, (USD \$74,000) on November 22, 2019, which was recognized as an intangible asset for the purchase of the licensed patents and is being amortized over the remaining life of the patents. 180 LP will also pay Kennedy royalties equal to (i) 1% of the net sales for the first annual GBP £1 million (USD \$1,283,400) of net sales, and (ii) 2% of the net sales after the net sales are at or in excess of GBP £1 million, as well as 25% of all sublicense revenue, provided that the amount of such percentage of sublicense revenue based on amounts which constitute royalties shall not be less than 1% on the first cumulative GBP £1 million of net sales of the products sold by such sublicenses or their affiliates, and 2% on that portion of the cumulative net sales of the products sold by such sublicenses or their affiliates in excess of GBP £1 million.

The term of the royalties paid by the Company to Kennedy will expire on the later of (i) the last valid claim of a patent included in the Kennedy Licensed Patents which covers or claims the exploitation of a product in the applicable country; (ii) the expiration of regulatory exclusivity for the product in the country; or (iii) 10 years from the first commercial sale of the product in the country. The Kennedy License Agreement may be terminated without cause by providing a 90-day notice.

Petcanna Sub-License Agreement

On August 20, 2018, CBR Pharma entered into a sub-license agreement (the “Sub-License Agreement”) with its wholly owned subsidiary, Petcanna Pharma Corp. (“Petcanna”), of which the Company’s former Chief Financial Officer is a director. Petcanna is a private company with one common principal with the Company.

Pursuant to the terms of the Sub-license Agreement, the Company has granted a sub-license on the Licensed Patents to pursue development and commercialization for the treatment of any and all veterinary conditions. In consideration, Petcanna will (a) issue 9,000,000 common shares of its share capital (the “Petcanna Shares”) 30 days after the effective date; and (b) pay royalties of 1% of net sales. The Company will be issued 85% and Yissum will be issued 15% of the 9,000,000 common shares of the Petcanna subsidiary. The Petcanna shares are deemed to be founders shares with no value. The Petcanna shares have not been issued as of December 31, 2021, due to administrative delays.

360 Life Sciences Corp. Agreement — Related Party (Acquisition of ReFormation Pharmaceuticals Corp.)

On July 1, 2020, the Company entered into an amended agreement with ReFormation Pharmaceuticals, Corp. (“ReFormation”) and 360 Life Sciences Corp. (“360”), whereby 360 has entered into an agreement to acquire 100% ownership of ReFormation, on or before July 31, 2020 (“Closing Date”). The Company shares officers and directors with each of ReFormation and 360. Upon the Closing Date, 360 will make tranche payments in tranches to 180 LP in the aggregate amount of \$300,000. The parties agree that the obligations will be paid by 360 to 180 LP by payments of \$100,000 for every \$1,000,000 raised through the financing activities of 360, up to a total of \$300,000, however, not less than 10% of all net financing proceeds received by 360 shall be put towards the obligation to the Company until paid in full. This transaction closed on July 31, 2020.

On February 26, 2019, 180 LP entered into a one-year agreement (the “Pharmaceutical Agreement”) with ReFormation, a related party that shares directors and officers of 180 LP, pursuant to which the ReFormation agreed to pay 180 LP \$1.2 million for rights of first negotiation to provide for an acquisition of any arising intellectual property or an exclusive licensing, partnering, or collaboration transaction to use any arising intellectual property with respect to a contemplated research agreement between the Company and Oxford (see Oxford University Agreements, above),

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which was signed on March 22, 2019 and therefore is the start date of the project. Of the \$1.2 million receivable from Reformation pursuant to the Pharmaceutical Agreement, \$0.9 million was received by the Company on March 14, 2019 and the remaining \$0.3 million will be received over the one-year term of the agreement.

180 LP is recognizing the income earned in connection with the Pharmaceutical Agreement on a straight-line basis over the term of the agreement. During the years ended December 31, 2021 and 2020, 180 LP recognized \$0 and \$240,000, respectively, of income related to the Pharmaceutical Agreement, which is included in other income in the accompanying consolidated statement of operations and other comprehensive income loss. As of December 31, 2021, the Company charged the \$300,000 receivable to bad debt expense. As of December 31, 2020, the Company had a receivable of \$300,000 representing income earned in excess of cash received pursuant to the Pharmaceutical Agreement.

Operating Leases

On February 17, 2020, the Company entered into a twelve-month lease agreement to lease office space located in London, UK. The rent is approximately GBP £4,250 (USD \$5,801) per month over the lease term for a total lease commitment of GBP £61,200 (USD \$83,532). The lease commenced on February 19, 2020 and expires on February 18, 2021. In connection with the lease, the Company paid the landlord a security deposit of GBP £5,100 (USD \$6,961). The lease shall continue until one of the following two events occur: (a) another lease agreement is entered into by the parties or (b) either party gives not less than three full calendar months written notice terminating this agreement prior to the expiration date. The Company terminated the lease in August 2020 due to the COVID-19 pandemic. The Company's rent expense amounted to \$0 and GBP £30,257 (USD \$38,831) for the years ended December 31, 2021 and 2020, respectively. Rent expense is reflected in general and administrative expenses in the consolidated statements of operations and comprehensive loss.

Consulting Agreement

Related Party Consulting Agreement

On February 22, 2021, the Company entered into a consultancy agreement (as amended, the "Consulting Agreement") with a related party, Prof. Jagdeep Nanchahal (the "Consultant"). The Consulting Agreement was effective December 1, 2020.

Pursuant to the Consulting Agreement, the Company agreed to pay the Consultant 15,000 British Pounds (GBP) per month (approximately \$20,800) during the term of the agreement, increasing to 23,000 GBP per month (approximately \$32,000) on the date (a) of publication of the data from the phase 2b clinical trial for Dupuytren's Contracture (RIDDD) and (b) the date that the Company has successfully raised over \$15 million in capital. The Company also agreed to pay the Consultant the following bonus amounts:

- the sum of £100,000 (approximately \$138,000) upon submission of the Dupuytren's Contracture clinical trial data for publication in a peer-reviewed journal ("Bonus 1");
- the sum of £434,673 GBP (approximately \$605,000) ("Bonus 2"), which is earned and payable upon the Company raising a minimum of \$15 million in additional funding, through the sale of debt or equity, after December 1, 2020 (the "Vesting Date"). Bonus 2 is payable within 30 days of the Vesting Date and shall not be accrued, due or payable prior to the Vesting Date. Bonus 2 is payable, at the election of the Consultant, at least 50% (fifty percent) in shares of the Company's common stock, at the lower of (i) \$3.00 per share, or (ii) the trading price on the date of the grant, with the remainder paid in GBP;
- the sum of £5,000 (approximately \$7,000) on enrollment of the first patient to the phase 2 frozen shoulder trial ("Bonus 3"); and
- the sum of £5,000 (approximately \$7,000) for enrollment of the first patient to the phase 2 delirium/POCD trial ("Bonus 4").

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The Consulting Agreement has an initial term of three years, and renews thereafter for additional three-year terms, until terminated as provided in the agreement. The Consulting Agreement can be terminated by either party with 12 months prior written notice (provided the Company's right to terminate the agreement may only be exercised if the Consultant fails to perform his required duties under the Consulting Agreement), or by the Company immediately under certain conditions specified in the Consulting Agreement if (a) the Consultant fails or neglects efficiently and diligently to perform the services required thereunder or is guilty of any breach of its or his obligations under the agreement (including any consent granted under it); (b) the Consultant is guilty of any fraud or dishonesty or acts in a manner (whether in the performance of the services or otherwise) which, in the reasonable opinion of the Company, has brought or is likely to bring the Consultant, the Company or any of its affiliates into disrepute or is convicted of an arrestable offence (other than a road traffic offence for which a non-custodial penalty is imposed); or (c) the Consultant becomes bankrupt or makes any arrangement or composition with his creditors. If the Consulting Agreement is terminated by the Company for any reason other than cause, the Consultant is entitled to a lump sum payment of 12 months of his fee as of the date of termination.

Effective March 30, 2021, in satisfaction of amounts owed to the Consultant for 50% of Bonus2, the Company issued 100,699 shares of the Company's common stock to the Consultant. Additionally, on April 15, 2021, in satisfaction of amounts owed to the Consultant for an additional 19% of Bonus 2, the Company issued 37,715 of the Company's common stock to the Consultant.

Effective August 27, 2021, in satisfaction of amounts owed to the Consultant for the remainder of Bonus2, the Company issued 61,535 shares of the Company's common stock to the Consultant since the Company raised \$15 million in a financing transaction, as per the agreement. All issuances were made under the Company's 2020 Omnibus Incentive Plan. See Note 13 — Stockholders' Equity.

In December 2021, the Dupuytren's Contracture clinical trial data was submitted for publication in a peer reviewed journal and Bonus 1 was paid to the Consultant.

Larsen Consulting Agreement

On April 29, 2021, the Company entered into a consulting agreement with Glenn Larsen, the former Chief Executive Officer of 180 LP, to act in the capacity as negotiator for the licensing of four patents. In consideration for services provided, the Company agreed to compensate Mr. Larsen with \$50,000 of its restricted common stock (valued based on the closing sales price of the Company's common stock on the date the Board of Directors approved the agreement, which shares have not been issued to date). The fully vested shares will be issued to Mr. Larsen pursuant to the 2020 Omnibus Incentive Plan, upon the Company entering into a licensing transaction with the assistance of Mr. Larsen. On November 2, 2021, the Company and Oxford University entered into a license agreement and therefore 5,423 shares were issued to Mr. Larsen on November 3, 2021 pursuant to the Company's 2020 Omnibus Incentive Plan.

Employment Agreement of Chief Executive Officer

On February 25, 2021, the Company entered into an amended agreement with Dr. James Woody, the Chief Executive Officer of the Company (the "CEO") (the "A&R Agreement"), dated February 24, 2021, and effective November 6, 2020, which replaced the CEO's prior agreement with the Company. Pursuant to the A&R Agreement, the CEO agreed to serve as an officer of the Company for a term of three years, which is automatically renewable thereafter for additional one-year periods, unless either party provides the other at least 90 days written notice of their intent to not renew the agreement. The CEO's annual base salary under the agreement will initially be \$450,000 per year, with automatic increases of 5% per annum.

As additional consideration for the CEO agreeing to enter into the agreement, the Company awarded him options to purchase 1,400,000 shares of the Company's common stock, which have a term of 10 years, and an exercise price of \$4.43 per share (the closing sales price on the date the board of directors approved the grant (February 26, 2021)).

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The options as subject to the Company's 2020 Omnibus Incentive Plan and vest at the rate of (a) 1/5th of such options on the grant date; and (b) 4/5th of such options vesting ratably on a monthly basis over the following 36 months on the last day of each calendar month; provided, however, that such options vest immediately upon the CEO's death or disability, termination without cause or a termination by the CEO for good reason (as defined in the agreement), a change in control of the Company or upon a sale of the Company.

The CEO is also eligible to receive an annual bonus, with a target bonus equal to 45% of his the current base salary, based upon the Company's achievement of performance and management objectives as set and approved by the Board of Directors and/or Compensation Committee in consultation with the CEO. At the CEO's option, the annual bonus can be paid in cash or the equivalent value of the Company's common stock or a combination. The Board of Directors, as recommended by the Compensation Committee, may also award the CEO bonuses from time to time (in stock, options, cash, or other forms of consideration) in its discretion. Under the A&R Agreement, the CEO is also eligible to participate in any stock option plans and receive other equity awards, as determined by the Board of Directors from time to time. As of December 31, 2021, the Company recorded \$205,500 of accrued bonus payable to the CEO.

The A&R agreement can be terminated any time by the Company for cause (subject to the cure provisions of the agreement), or without cause (with 60 days prior written notice to the CEO), by the CEO for good reason (as described in the agreement, and subject to the cure provisions of the agreement), or by the CEO without good reason. The agreement also expires automatically at the end of the initial term or any renewal term if either party provides notice of non-renewal as discussed above.

In the event the A&R Agreement is terminated without cause by the Company, or by the CEO for good reason, the Company agreed to pay him the lesser of 18 months of salary or the remaining term of the agreement, the payment of any accrued bonus from the prior year, his pro rata portion of any current year's bonus and health insurance premiums for the same period that he is to receive severance payments (as discussed above).

The A&R Agreement contains standard and customary invention assignment, indemnification, confidentiality and non-solicitation provisions, which remain in effect for a period of 24 months following the termination of his agreement.

Employment Agreement of Chief Financial Officer

On February 25, 2021, the Company entered into an Employment Agreement (the "CFO Agreement") dated February 24, 2021, and effective November 6, 2020, with the Company's Interim Chief Financial Officer, Ozan Pamir. Pursuant to the agreement, the CFO agreed to serve as the Interim Chief Financial Officer ("CFO") of the Company for an initial salary of \$300,000 per year, subject to increase to a mutually determined amount upon the closing of a new financing as well as annual increases.

As additional consideration for the CFO agreeing to enter into the agreement, the Company awarded him options to purchase 180,000 shares of the Company's common stock, which have a term of 10 years, and an exercise price of \$4.43 per share (the closing sales price on the date the board of directors approved the grant (February 26, 2021)). The options are subject to the Company's 2020 Omnibus Incentive Plan and vest at the rate of (a) 1/5th of such options upon the grant date; and (b) 4/5th of such options vesting ratably on a monthly basis over the following 36 months on the last day of each calendar month; provided, however, that such options vest immediately upon the CFO's death or disability, termination without cause or a termination by the CFO for good reason (as defined in the agreement), a change in control of the Company or upon a sale of the Company.

Under the agreement, the CFO is eligible to receive an annual bonus, in a targeted amount of 30% of his then salary, based upon the Company's achievement of performance and management objectives as set and approved by the CEO, in consultation with the CFO. The bonus amount is subject to adjustment. The Board of Directors, as recommended by the Compensation Committee of the Company (and/or the Compensation Committee), may also

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NOTE 12 — COMMITMENTS AND CONTINGENCIES (cont.)

award the CFO bonuses from time to time (in stock, options, cash, or other forms of consideration) in its discretion. Under the CFO Agreement, the CFO is also eligible to participate in any stock option plans and receive other equity awards, as determined by the Board of Directors from time to time. As of December 30, 2021, the Company recorded \$90,000 of accrued bonus payable to the CFO.

The agreement can be terminated any time by the Company with or without cause with 60 days prior written notice and may be terminated by the CFO at any time with 60 days prior written notice. The agreement may also be terminated by the Company with six days' notice in the event the agreement is terminated for cause under certain circumstances. Upon the termination of the CFO's agreement by the Company without cause or by the CFO for good reason, the Company agreed to pay him three months of severance pay.

The agreement contains standard and customary invention assignment, indemnification, confidentiality and non-solicitation provisions, which remain in effect for a period of 24 months following the termination of his agreement.

Employment Agreement of Chief Operating Officer/Chief Business Officer

On October 29, 2021, the Company entered into an Employment Agreement (the "COO/CBO Agreement") dated October 27, 2021, and effective November 1, 2021, with Quan Vu. Pursuant to the agreement, Mr. Vu agreed to serve as the Chief Operating Officer/Chief Business Officer ("COO/CBO") of the Company for an initial salary of \$390,000 per year, subject to a \$10,000 increase upon completion of a \$50 Million financing and a yearly increase of five percent (5%) on each start-day anniversary.

As additional consideration for the COO/CBO agreeing to enter into the agreement, the Company awarded him options to purchase 275,000 shares of the Company's common stock, which have a term of 10 years, and an exercise price equal to the Fair Market Value of the Company's common stock on the date of grant which is still to be determined. The options are subject to the Company's 2020 Omnibus Incentive Plan and vest ratably on a monthly basis over the following 48 months on the last day of each calendar month; provided, however, that such options vest immediately upon the COO/CBO death or disability, termination without cause or a termination by the COO/CBO for good reason (as defined in the agreement), a change in control of the Company or upon a sale of the Company.

Under the agreement, the COO/CBO is eligible to receive an annual bonus, in a targeted amount of 50% of his then salary, based upon the Company's achievement of performance and management objectives as set and approved by the CEO, in consultation with the CFO. The annual bonus shall be paid on or before March 31 of the year following the year in which the bonus is earned. At the choice of the Executive, the annual bonus can be paid in cash or the equivalent value of the Company's common stock or a combination of both. For calendar 2021, such Bonus payment, if any, will be prorated for approximately 2 months after the Start Date. The CEO, as approved by the Compensation Committee, may also award the Executive a bonus from time to time (in stock, options, cash, or other forms of consideration) in his discretion.

The agreement can be terminated any time by the Company with or without cause with 30 days prior written notice and may be terminated by the COO/CBO at any time with 30 days prior written notice. The agreement may also be terminated by the Company with ten days' notice in the event the agreement is terminated for cause under certain circumstances. Upon the termination of the COO/CBO's agreement by the Company without cause or by the COO/CBO for good reason, the Company agreed to pay him twelve months of severance pay, except if Executive separates from the Company prior to a one-year anniversary.

The agreement contains standard and customary invention assignment, indemnification, confidentiality and non-solicitation provisions, which remain in effect for a period of 24 months following the termination of his agreement.

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NOTE 13 — STOCKHOLDERS' EQUITY

Preferred Stock

Pursuant to the Company's Second Amended and Restated Certificate of Incorporation filed on November 6, 2020, the Company has 5,000,000 preferred shares authorized at a par value of \$0.0001 per share, of which 1,000,000 shares are designated as Series A Convertible Preferred Stock ("Series A Preferred"), 1 share is designated as the Class K Special Voting Share and 1 share is designated as the Class C Special Voting Share. The Class K Special Voting Share and the Class C Special Voting Share are together, the "Special Voting Shares". As of December 31, 2020, there is no Series A Preferred issued or outstanding; there is one Class K Special Voting Share and one Class C special Voting Share issued and outstanding.

Series A Preferred Stock

The Series A Preferred is convertible into common stock at an initial conversion price of \$5.28 per share, at the election of the holder, at any time following issuance, subject to certain anti-dilution adjustments. Upon a dilutive issuance (as defined) at a price per share lower than the existing conversion price, the conversion price will adjust to the lower of (a) the dilutive issuance price per share; or (b) the lowest volume-weighted-average-price during the five days preceding the dilutive issuance. Upon any conversion, a make-whole amount (as defined in the Certificate of Designation of the Series A Preferred) shall be due with respect to each share of Series A Preferred converted. At any time following the three-month anniversary of the Business Combination, the holder of the Series A Preferred had the right to force the Company to redeem all or any portion of the Series A Preferred then owned by the holder in cash. Series A Preferred stockholders were entitled to 10% dividends. Holders of the Series A Preferred had no voting rights.

The Company assumed 1,000,000 shares of issued and outstanding Series A Preferred in connection with the Business Combination with a carrying value of \$1,411,265, which was net of a \$1,922,068 discount from its stated value of \$3,333,333. The discount included an original issuance discount of \$333,333, cash issuance costs of \$318,333, warrant issuance costs of \$103,402 (fair value of warrant issued to placement agent), and a bifurcated redemption feature that was valued at \$1,167,000 at issuance (see Note 9 — Derivative Liabilities). No accretion of the Series A Preferred discount was required because redemption wasn't deemed to be probable.

On November 25, 2020, a dilutive issuance reduced the conversion price to the lower of (a) 96% of the lowest volume-weighted-average-price of the common stock during the five-day period preceding the conversion date; or (b) \$5.28, both subject to a floor of \$2.00 per share. The conversion price adjustment was treated as an extinguishment and reissuance of the outstanding Series A Preferred. On the extinguishment date, the bifurcated redemption feature was marked-to-market, increasing the value by \$606,000 and recognizing a corresponding charge to change in fair value of derivative liabilities. The \$1,411,265 carrying value of the preferred stock and the \$1,773,000 fair value of the derivative liability were derecognized and we recognized the new \$3,531,924 fair value of the preferred stock and the new \$218,000 value of the bifurcated redemption feature. The difference of \$565,659 was recognized as a deemed dividend.

During the period from November 30, 2020 to December 18, 2020, the 1,000,000 shares of Series A Preferred of the Company with a total conversion value of \$3,666,667 were converted into shares of the Company's common stock at conversion prices of between \$2.00 and \$2.31 per share, pursuant to the terms of such preferred stock. The bifurcated redemption features were marked-to-market just prior to each conversion, resulting in an aggregate charge of \$42,068 to change in fair value of derivative liabilities and the \$260,068 fair value of the bifurcated redemption features were derecognized on the conversion dates. At conversion, the aggregate \$3,531,924 carrying value of the preferred stock and the \$260,068 fair value of the derivative liability were derecognized and we recognized the \$4,349,035 fair value of the 1,614,144 shares of common stock issued. The difference of \$557,043 was recorded as deemed dividend expense, including \$333,333 associated with the make-whole premiums and \$223,710 associated with the contingent beneficial conversion feature. Due to such conversions, the Company currently has no shares of Series A Preferred issued or outstanding.

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NOTE 13 — STOCKHOLDERS' EQUITY (cont.)

The aggregate deemed dividend presented on the income statement is comprised of the \$333,333 make whole dividend, the \$223,710 beneficial conversion feature and a \$565,659 extinguishment loss associated with the conversion price adjustment.

Common Stock

The Company is authorized to issue 100,000,000 shares of the Company's common stock with a par value of \$0.0001 per share. Holders of the Company's shares of the Company's common stock are entitled to one vote for each share.

During the year ended December 31, 2020, the Company issued 12,324,300 shares of its common stock, of which 12,292 shares were issued for cash consideration of \$72,500, 240,540 shares with a grant date value of \$1,057,989 were issued as compensation, 1,519,628 shares of common stock were issued to the KBL shareholders upon the consummation of the Reverse Merger, 1,619,144 shares of common stock were issued upon the conversion of \$4,349,035 of Series A Preferred Stock, 1,521,157 shares were issued upon the exchange of common stock equivalents associated with the Special Voting Shares, 482,894 shares were issued upon conversion of 180 debt and 6,928,645 shares were issued as a result of the reverse recapitalization.

Sale of Common Stock and Warrants in the February 2021 Private Offering

On February 19, 2021, the Company entered into a Securities Purchase Agreement with certain purchasers (the "Purchasers"), pursuant to which the Company agreed to sell an aggregate of 2,564,000 shares of common stock (the "PIPE Shares") and warrants to purchase up to an aggregate of 2,564,000 shares of common stock (the "PIPE Warrants"), at a combined purchase price of \$4.55 per share and PIPE Warrant (the "Offering"). Aggregate gross proceeds from the offering were approximately \$11.7 million. Net proceeds to the Company from the offering, after deducting the placement agent fees and estimated offering expenses payable by the Company, were approximately \$10.7 million.

The PIPE Warrants have an exercise price equal to \$5.00 per share, were immediately exercisable and are subject to customary anti-dilution adjustments for stock splits or dividends or other similar transactions. However, the exercise price of the PIPE Warrants will not be subject to adjustment as a result of subsequent equity issuances at effective prices lower than the then-current exercise price. The PIPE Warrants are exercisable for 5 years following the closing date. The PIPE Warrants are subject to a provision prohibiting the exercise of such PIPE Warrants to the extent that, after giving effect to such exercise, the holder of such PIPE Warrant (together with the holder's affiliates, and any other persons acting as a group together with the holder or any of the holder's affiliates), would beneficially own in excess of 4.99% of the Company's outstanding common stock (which may be increased to 9.99% on a holder by holder basis, with 61 days prior written consent of the applicable holder). The PIPE Warrants were determined to be liability-classified (see Note 9, Derivative Liabilities). Of the \$968,930 of placement agent fees and offering expenses, \$364,812 was allocated to the PIPE Shares and \$604,118 was allocated to the PIPE Warrant. Because the PIPE Warrants are liability classified, the \$604,118 allocated to the warrants was immediately expensed.

In connection with the offering, the Company also entered into a Registration Rights Agreement, dated as of February 23, 2021, with the Purchasers (the "Registration Rights Agreement"). Pursuant to the Registration Rights Agreement, the Company agreed to file a registration statement with the SEC on or prior to April 24, 2021 to register the resale of the PIPE Shares and the shares of common stock issuable upon exercise of the PIPE Warrants (the "PIPE Warrant Shares"), and to cause such registration statement to be declared effective on or prior to June 23, 2021 (or, in the event of a "full review" by the SEC, August 22, 2021). The Company was in default of the terms of the Registration Rights Agreement as the registration statement to register the PIPE Shares and PIPE Warrant Shares was not filed by April 24, 2021; provided that such registration statement has been filed. As a result of this default, the Company was required to pay damages to the Purchasers in the aggregate amount of \$174,993 each month, up to a maximum of \$583,310. The Company incurred \$524,979 of damages during the year ended December 31, 2021, which amount was paid, and as a result the Company is no longer in default.

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NOTE 13 — STOCKHOLDERS' EQUITY (cont.)

Bridge Note Conversions

During the first quarter of 2021, certain noteholders elected to convert bridge notes with an aggregate principal balance of \$365,750 and an aggregate accrued interest balance of \$66,633 into an aggregate of 158,383 shares of the Company's common stock at a conversion price of \$2.73 per share, pursuant to the terms of such notes. (see Note 11 — Convertible Notes Payable).

Convertible Note Conversions

During the first quarter of 2021, certain noteholders elected to convert certain convertible notes payable with an aggregate principal balance of \$1,234,333 and an aggregate accrued interest balance of \$105,850 into an aggregate of 467,123 shares of the Company's common stock at conversion prices ranging from \$2.45-\$3.29 per share, pursuant to the terms of such notes. (see Note 11 — Convertible Notes Payable).

EarlyBird Settlement

On April 23, 2021, the Company settled the amounts due pursuant to a certain finder agreement entered into with EarlyBird Capital, Inc. ("EarlyBird") on October 17, 2017 (the "Finder Agreement"). The Company's Board of Directors determined it was in the best interests to settle all claims which had been made or could be made with respect to the Finder Agreement and entered into a settlement agreement (the "Settlement Agreement"). Pursuant to the Settlement Agreement, the Company paid EarlyBird a cash payment of \$275,000 and issued 225,000 shares of the Company's restricted common stock with a grant date value of \$1,973,250 to EarlyBird, in full satisfaction of accounts payable in the amount of \$1,750,000. The Company recorded a loss of \$223,250 in connection with the Settlement Agreement, which is included in (loss) gain on settlement of liabilities in the accompanying consolidated statements of operations.

Sale of Common Stock and Warrants in the August 2021 Offering

On August 23, 2021, the Company entered into a Securities Purchase Agreement with certain purchasers, pursuant to which the Company agreed to sell an aggregate of 2,500,000 shares of common stock and warrants to purchase up to an aggregate of 2,500,000 shares of common stock (the "August 2021 PIPE Warrants"), at a combined purchase price of \$6.00 per share and August 2021 PIPE Warrant (the "August 2021 Offering"). Aggregate gross proceeds from the August 2021 Offering were approximately \$15,000,000. Net proceeds to the Company from the August 2021 Offering, after deducting the placement agent fees and estimated offering expenses payable by the Company, were approximately \$13.9 million.

The August 2021 PIPE Warrants have an exercise price equal to \$7.50 per share, are immediately exercisable and are subject to customary anti-dilution adjustments for stock splits or dividends or other similar transactions. However, the exercise price of the August 2021 PIPE Warrants will not be subject to adjustment as a result of subsequent equity issuances at effective prices lower than the then-current exercise price. The August 2021 PIPE Warrants are exercisable for 5 years following the closing date. The August 2021 PIPE Warrants are subject to a provision prohibiting the exercise of such August 2021 PIPE Warrants to the extent that, after giving effect to such exercise, the holder of such August 2021 PIPE Warrant (together with the holder's affiliates, and any other persons acting as a group together with the holder or any of the holder's affiliates), would beneficially own in excess of 4.99% of the Company's outstanding common stock (which may be increased to 9.99% on a holder by holder basis, with 61 days prior written consent of the applicable holder). Although the PIPE Warrants have a tender offer provision, the August 2021 PIPE Warrants were determined to be equity-classified because they met the limited exception in the case of a change-in-control. Because the August 2021 PIPE Warrants are equity-classified, the \$1,120,000 of placement agent fees and offering expenses were fully accounted for as a reduction of additional paid in capital.

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NOTE 13 — STOCKHOLDERS' EQUITY (cont.)

In connection with the August 2021 Offering, the Company also entered into a Registration Rights Agreement, dated as of August 23, 2021, with the purchasers (the "August 2021 Registration Rights Agreement"). Pursuant to the August 2021 Registration Rights Agreement, the Company agreed to file a registration statement with the SEC on or prior to September 12, 2021 to register the resale of the shares and the shares of common stock issuable upon exercise of the August 2021 PIPE Warrants (the "Warrant Shares") sold in the August 2021 Offering, and to cause such registration statement to be declared effective on or prior to October 22, 2021 (or, in the event of a "full review" by the SEC, November 21, 2021). The registration statement was filed on August 31, 2021 and the SEC declared it effective on September 9, 2021, prior to the deadline set forth in the August 2021 Registration Rights Agreement.

Exchanges of Related Party Loans and Convertible Notes

On September 30, 2021, Dr. Lawrence Steinman and Sir Marc Feldmann, Ph.D., each of whom serves as an Executive Co-Chairman of the Company's Board of Directors, agreed with the Company to convert amounts owed under outstanding loans with an aggregate principal balance of \$693,371 and an aggregate accrued interest balance of \$157,741 into an aggregate of 141,852 shares of the Company's common stock at the conversion price of \$6.00 per share, pursuant to the terms of the agreement, which conversion rate was above the closing consolidated bid price of the Company's common stock on the date the binding agreement was entered into. (See Note 10 — Loans Payable and Note 11 — Convertible Notes Payable for more information.)

Alpha Capital Settlement

During the third quarter of 2021, the Company issued 150,000 shares of common stock and warrants to purchase 25,000 shares in connection with a settlement entered into with Alpha Capital. (see Note 11 — Convertible Notes Payable).

Common Stock Issued for Services

During the year ended December 31, 2021, the Company issued an aggregate of 317,553 shares of the Company's common stock, respectively, as compensation to consultants, directors, and officers, with an aggregate issuance date fair value of \$1,785,366, respectively, which was charged immediately to the consolidated statement of operations for the year ended December 31, 2021.

Special Voting Shares

The Special Voting Shares were issued to the former shareholders of CBR Pharma and Katexco in connection with the reorganization of 180 prior to the Business Combination. The Special Voting Shares are exchangeable by the holder for shares of the Company's common stock and vote together as a single class with the Company's common stockholders. Special Voting Shares are not entitled to receive any dividend of distributions.

During the year ended December 31, 2021, 1,464,545 shares were issued upon the exchange of common stock equivalents associated with the Special Voting Shares.

The following table summarizes the Special Voting Shares activity during the years ended December 31, 2021 and 2020:

Balance, January 1, 2020	2,990,904
Shares issued	—
Shares exchanged	(1,521,157)
Balance, December 31, 2020	1,469,747
Shares issued	—
Shares exchanged	(1,464,472)
Balance, December 31, 2021	5,275

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NOTE 13 — STOCKHOLDERS' EQUITY (cont.)

Stock Options

A summary of the option activity during the years ended December 31, 2021 and 2020 is present below:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Term (Yrs)	Intrinsic Value
Outstanding, January 1, 2020				
Granted	50,000	2.49	—	—
Exercised	—	—	—	—
Expired	—	—	—	—
Forfeited	—	—	—	—
Outstanding, December 31, 2020				
Granted	2,691,000	4.82	—	—
Exercised	—	—	—	—
Expired	—	—	—	—
Forfeited	—	—	—	—
Outstanding, December 31, 2021				
	2,741,000	4.77	9.41	\$ 70,500
Exercisable, December 31, 2021				
	927,632	4.39	9.30	\$ 70,500

A summary of outstanding and exercisable stock options as of December 31, 2021 is presented below:

Stock Options Outstanding		Stock Options Exercisable	
Exercise Price	Number of Shares	Weighted Average Remaining Life in Years	Number of Shares
\$ 2.49	50,000	8.9	50,000
\$ 4.43	1,580,000	9.2	667,111
\$ 7.56	436,000	9.6	45,417
\$ 3.95	675,000	9.9	165,104
	2,741,000	9.4	927,632

On December 3, 2020, the Company issued ten-year options for the purchase of an aggregate of 50,000 shares of its common stock to two members of the board of directors. The options are exercisable at \$2.49 per share and vest in equal monthly installments over the twelve months following the grant date. The grant date value of \$93,575 was estimated using the Black Scholes valuation method with the following assumptions used:

Risk free interest rate	0.4%
Expected term (years)	5.27
Expected volatility	100%
Expected dividends	0%

On February 26, 2021, the Company issued ten-year options to purchase an aggregate of 1,580,000 shares of the Company's common stock to two officers of the Company, pursuant to the 2020 Omnibus Incentive Plan. The options have an exercise price of \$4.43 per share and vest at the rate of 20% on the date of grant and the remaining 80% on a monthly basis thereafter over the following 36 months. The options had a grant date fair value of \$4,810,527, which will be recognized over the vesting term.

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NOTE 13 — STOCKHOLDERS' EQUITY (cont.)

On August 4, 2021, the Company granted ten-year options for the purchase of an aggregate of 436,000 shares of common stock at an exercise price of \$7.56 per share, to six independent directors of the Company, pursuant to the 2020 Omnibus Incentive Plan. The options had an aggregate grant date value of \$2,180,375, and vest monthly over four years.

On December 8, 2021, the Company granted ten-year options for the purchase of an aggregate of 675,000 shares of common stock at an exercise price of \$3.95 per share to six officers of the Company, pursuant to the 2020 Omnibus Incentive Plan. The options had an aggregate grant date value of \$2,077,953 and vest at various periods over four years.

The assumptions used in the Black-Scholes valuation method were as follows:

Risk free interest rate	0.75% – 1.36%
Expected term (years)	5.61 – 6.01
Expected volatility	84% – 98.5%
Expected dividends	0%

The Company recognized stock-based compensation expense of \$2,852,309 and \$7,798 for the years ended December 31, 2021 and 2020, respectively, related to the amortization of stock options. The expense is included within general and administrative expenses or research and development expenses on the consolidated statements of operations. As of December 31, 2021, there was \$6,302,356 of unrecognized stock-based compensation expense that will be recognized over the weighted average remaining vesting period of 3.04 years.

NOTE 14 — INCOME TAXES

The Company is subject to federal and state/provincial income taxes in the United States, Canada, and the United Kingdom and each legal entity files on a non-consolidated basis. The benefit of the pre-reorganization net operating losses of 180 LP were passed through to its owners.

The losses before income taxes consist of the following domestic and international components:

	For the Years Ended December 31,	
	2021	2020
Domestic	\$ (15,078,170)	\$ (8,635,341)
International	(5,269,682)	(2,269,144)
	<u>\$ (20,347,852)</u>	<u>\$ (10,904,485)</u>

The provision for income taxes consists of the following benefits (provisions):

	For the Years Ended December 31,	
	2021	2020
Deferred tax benefits:		
Domestic:		
Federal	\$ 1,503,577	\$ 1,289,907
State	499,136	427,689
International	547,944	541,614
	<u>2,550,657</u>	<u>2,259,210</u>
Change in valuation allowance	(2,527,453)	(2,238,783)
Net income tax benefit	<u>\$ 23,204</u>	<u>\$ 20,427</u>

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NOTE 14 — INCOME TAXES (cont.)

Certain deferred tax liabilities are denominated in currencies other than the US dollar and are subject to foreign currency translation adjustments. The provision for income taxes differs from the United States Federal statutory rate as follows:

	For the Years Ended December 31,	
	2021	2020
US Federal statutory rate	21.0%	21.0%
Difference between domestic and foreign federal rates	(0.5)%	(0.6)%
State and provincial taxes, net of federal benefits	5.2%	6.0%
Permanent differences:		
Stock-based compensation	(5.8)%	(0.8)%
Change in the fair value of derivatives and accrued issuable equity	(6.4)%	(4.6)%
Loss on extinguishment	—	(1.0)%
Other	(0.8)%	0.7%
Change in valuation allowance	(12.4)%	(20.5)%
Effective income tax rate	<u>0.3%</u>	<u>0.2%</u>

Deferred tax assets and liabilities consist of the following:

	As of December 31,	
	2021	2020
Deferred tax assets:		
Net operating loss carryforwards	\$ 9,395,986	\$ 6,352,809
Organizational costs deferred for tax purposes	—	3,068,651
Accrued compensation not currently deductible	169,222	224,931
Accrued interest	146,636	—
Other	(1)	62,829
	<u>9,711,843</u>	<u>9,709,220</u>
Deferred tax liabilities:		
Difference between book and tax basis related to:		
Technology license	(375,671)	(404,507)
Acquired in-process research and development	(3,267,854)	(3,242,750)
Other	(639,726)	(21,072)
	<u>(4,283,251)</u>	<u>(3,668,329)</u>
Deferred tax assets and liabilities	5,428,592	6,040,891
Valuation allowance	(9,072,118)	(9,709,220)
Deferred tax assets and liabilities, net	<u>\$ (3,643,526)</u>	<u>\$ (3,668,329)</u>

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NOTE 14 — INCOME TAXES (cont.)

The change in the valuation reserve for deferred tax assets consists of the following:

	For the Years Ended December 31,	
	2021	2020
Beginning of period	\$ (9,709,220)	\$ (4,979,276)
Allowance established in connection with the recording of deferred tax assets acquired resulting from the following transactions:		
– Business combination in 2020 described in Note 5	—	(2,491,161)
Change in valuation pursuant to the tax provision	(2,527,453)	(2,238,783)
True-up to a prior year’s tax return	3,164,555	—
End of period	<u>\$ (9,072,118)</u>	<u>\$ (9,709,220)</u>

As of December 31, 2021, the Company had net operating loss (“NOL”) carryforwards that may be available to offset future taxable income in various jurisdictions as follows:

- Approximately \$13,330,000 of domestic federal and \$7,359,000 of state NOLs. The federal NOLs have no expiration date and the state NOLs will begin to expire in 2039;
- Approximately \$ 8,589,000 each of Canadian federal and provincial NOLs. Those NOLs will begin to expire in 2038; and
- Approximately \$6,791,000 of United Kingdom federal NOLs. Those NOLs have no expiration date.

The utilization of the domestic NOLs to offset future taxable income may be subject to annual limitations under Section 382 of the Internal Revenue Code and similar state statutes as a result of ownership changes.

On November 6, 2020, we acquired net deferred tax assets of \$2,491,161, against which there is a full valuation allowance.

The Company has assessed the likelihood that deferred tax assets will be realized in accordance with the provisions of ASC 740 *Income Taxes* (“ASC 740”). ASC 740 requires that such a review considers all available positive and negative evidence, including the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies. ASC 740 requires that a valuation allowance be established when it is “more likely than not” that all, or a portion of, deferred tax assets will not be realized. After the performance of such reviews as of December 31, 2021 and 2020, management believes that uncertainty exists with respect to future realization of its deferred tax assets and has, therefore, established a full valuation allowance as of those dates. Thus, the Company established a valuation reserve of \$2,491,161 in connection with the net deferred tax assets acquired in connection with the Business Combination described in Note 5 during the year ended December 31, 2020. Additionally, the Company recorded increases in the valuation allowance of \$2,527,453 and \$2,238,783 in connection with the tax provisions for the years ended December 31, 2021 and 2020, respectively.

Management has evaluated and concluded that there were no material uncertain tax positions requiring recognition in the Company’s consolidated financial statements as of December 31, 2021 and 2020. The Company does not expect any significant changes in its unrecognized tax benefits within twelve months of the reporting date.

No tax audits were commenced or were in process during the years ended December 31, 2021 and 2020 nor were any tax related interest or penalties incurred during those periods. The Company’s tax returns filed in the United States, Canada, and the United Kingdom since inception remain subject to examination, with the exception of the tax returns filed for the 180 LP pass-through entity whose tax returns remain subject to examination beginning with the 2018 tax return.

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in US Dollars, except share amounts)

NOTE 15 — RELATED PARTIES

Due from Related Parties

Due from related parties of \$300,000 as of December 31, 2020 consisted of a receivable due from a research and development company that has shared officers and directors. Management now believes that the receivable is not collectible, and the receivable is fully reserved as of December 31, 2021.

Accounts Payable — Related Parties

Accounts payable — related parties was \$0 as of December 31, 2021. Accounts payable — related parties was \$215,495 as of December 31, 2020 and consists of \$196,377 for professional services provided by the Company's directors and \$19,118 for accounting fees for services provided by a former director and his company.

Accrued Expenses — Related Parties

Accrued expenses — related parties was \$18,370 as of December 31, 2021 and consists of interest accrued on loans and convertible notes due to certain officers and directors of the Company. Accrued expenses — related parties of \$454,951 as of December 31, 2020, consists of \$124,833 of interest accrued on loans and convertible notes due to certain officers and directors of the Company and \$330,118 of accrued professional fees for services provided by certain directors of the Company.

Loans Payable — Related Parties

Loans payable — related parties consists of \$81,277 and \$513,082 as of December 31, 2021 and 2020, respectively. See Note 10 — Loans Payable for more information.

Convertible Notes Payable — Related Parties

Convertible notes payable — related parties of \$0 and \$270,000 as of December 31, 2021 and 2020, respectively, represents the principal balance of convertible notes owed to certain officers and directors of the Company. See Note 11 — Convertible Notes Payable for more information.

Research and Development Expenses — Related Parties

Research and Development Expenses — Related Parties of \$2,947,536 and \$75,633 during the years ended December 31, 2021 and 2020, respectively, is related to consulting and professional fees paid to current or former officers, directors or greater than 10% investors, or affiliates thereof.

General and Administrative Expenses — Related Parties

General and Administrative Expenses — Related Parties during the years ended December 31, 2021 and 2020, were \$462,580 and \$185,848, respectively. Of the expenses incurred during 2021, approximately \$338,000 represents bad debt expense incurred in connection with a receivable from related parties, and approximately \$124,000 represents professional fees paid to current or former officers, directors or greater than 10% investors, or affiliates thereof. The expenses incurred during 2020 relate to professional fees paid to current or former officers, directors or greater than 10% investors, or affiliates thereof.

Other Income — Related Parties

Other Income — Related Parties during the years ended December 31, 2021 and 2020, were \$0 and \$240,000, respectively. During 2020, the Company recorded \$240,000 of other income related to a one-year research and development agreement with a company who shares common officers and directors with the Company.

180 LIFE SCIENCES CORP. AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Amounts in US Dollars, except share amounts)

NOTE 15 — RELATED PARTIES (cont.)

Interest Expense — Related Parties

During the year ended December 31, 2021, the Company recorded \$50,255 of interest expense — related parties, of which \$11,380 related to the convertible notes with officers and directors of the Company and \$38,875 related to interest expense on loans with officers, directors and a greater than 10% investor of the Company.

During the year ended December 31, 2020, the Company recorded \$84,550 of interest expense — related parties, of which \$48,591 related to the convertible notes with officers and directors of the Company and \$33,798 related to interest expense on loans with officers, directors and a greater than 10% investor of the Company, and \$2,161 was incurred prior to the Reorganization in connection with a Katexco loan payable to CBR Pharma.

NOTE 16 — SUBSEQUENT EVENTS

The Company has evaluated events and transactions subsequent to December 31, 2021 through the date the financial statements were issued. Except for the following, there are no subsequent events identified that would require disclosure in the financial statements.

Board of Directors Compensation — Fourth Quarter 2021

On January 17, 2022, the Company paid \$88,125 in cash and shares of common stock to the Board of Directors for compensation for the fourth quarter of 2021.

ACORN Consulting Agreement

On February 22, 2022, the Company entered into a consulting agreement with ACORN, a professional relations and consulting firm. ACORN will be engaged to create a full market awareness program, drive long-term investors to the Company and expand the Company's investor base. The Company will pay ACORN \$10,000 in cash and \$45,000 in shares of common stock during an initial six-month period, \$10,000 in cash and \$22,500 in shares of common stock during a second period of three months and \$10,000 in cash and \$22,500 in shares of common stock during a final period of three months. These compensation shares will be fully vested, earned, authorized and paid upon issuance.

MDM Worldwide Solutions, Inc. Consulting Agreement

On March 15, 2022, the Company entered into a consulting agreement with MDM Worldwide Solutions, Inc. ("MDM"). MDM will be engaged to provide the Company with strategic communication-based advisory and consulting services for the purpose of targeted outreach and engagement with the inflammatory disease communities online. The Company will pay MDM \$12,500 in cash per month and a one-time 20,000 shares of restricted common stock, which will be deemed earned upon execution of the contract. The initial term of the contract is six months.

Amendment to the Fourth Oxford Agreement

On March 22, 2022, CannU.K. entered into an amendment to the Fourth Oxford Agreement, which was originally signed on September 21, 2020, to extend the research period to December 31, 2023, at no additional cost to CannU.K.

Update — meeting with FDA regarding treatment of Dupuytren's Contracture

In March 2022, the Company received notice that the FDA had declined to grant a meeting with the Company regarding its preliminary discussion, Type C meeting for its treatment of early stage Dupuytren's Contracture, until more information about the manufacturer of the product is provided.

The Company remains committed to the development of its early stage Dupuytren's Contracture treatment and upon advice of its regulatory consultants plans to further correspond with the FDA with the goal of having a Type C meeting with the FDA; provided no assurances can be given that such meeting will be agreed to by the FDA or the timing of such meeting.

PART II — INFORMATION NOT REQUIRED IN PROSPECTUS**Item 13. Other Expenses of Issuance and Distribution.**

The following table sets forth the expenses expected to be incurred by us in connection with the issuance and distribution of the common stock registered hereby, all of which expenses, except for the SEC registration fee, are estimates:

SEC registration fee	\$	22,465*
Legal fees and expenses		**
Accounting fees and expenses		**
Miscellaneous fees and expenses		**
Total	\$	**

* This amount represents the aggregate SEC registration fees which were previously paid with the filings of the previous registration statements (File Nos. 333-249539, 333-258045, and 333-259209).

** Estimated fees and expenses not presently known.

Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law (the “DGCL”) authorizes a court to award, or a corporation’s board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act of 1933, as amended, or the Securities Act.

Our second amended and restated certificate of incorporation provides for indemnification of our directors, officers, employees and other agents to the maximum extent permitted by the DGCL, and our bylaws provide for indemnification of our directors, officers, employees and other agents to the maximum extent permitted by the DGCL.

In addition, we have entered or will enter into indemnification agreements with directors, officers and some employees containing provisions that are in some respects broader than the specific indemnification provisions contained in the DGCL. The indemnification agreements will require our company, among other things, to indemnify our directors against certain liabilities that may arise by reason of their status or service as directors and to advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified.

Item 15. Recent Sales of Unregistered Securities.

On March 15, 2019, we issued to our Sponsor an unsecured convertible promissory note in the principal amount of \$1,087,031. This issuance was made pursuant to the exemption from registration contained in Section 4(a)(2) of the Securities Act. On September 8, 2020, we amended and restated this note to remove the conversion feature and to provide that such note would be due upon the “Second Closing” under the June SPA.

In June 2020, pursuant to an agreement that we entered into with the holder of a convertible promissory note issued by 180 to such holder, we issued to such holder 404,245 shares of our common stock. We issued the shares without registration under the Securities Act, based on the exemption from registration afforded by Section 4(a)(2) thereof.

On June 26, 2020, we entered into a Securities Purchase Agreement (the “June SPA”) pursuant to which we issued to two investors secured convertible promissory notes in the aggregate principal amount of \$3,601,966 for an aggregate purchase price of \$3,407,522, together with an aggregate of 650,000 shares of our common stock. Upon the second closing pursuant to the June SPA, following the Closing in November 2020, we issued to one of the investors an aggregate of 1,000,000 shares of our Series A Convertible Preferred Stock for an aggregate purchase price of \$3,000,000. We issued the foregoing securities (and the securities issuable upon the conversion thereof) without registration under the Securities Act, based on the exemption from registration afforded by Section 4(a)(2) thereof.

On September 8, 2020, we entered into a Securities Purchase Agreement pursuant to which we issued to the investors signatory thereto secured convertible promissory notes in the aggregate principal amount of \$1,111,111 for an aggregate purchase price of \$1,000,000, together with an aggregate of 100,000 shares of our common stock. We issued the foregoing securities (and the securities issuable upon the conversion thereof) without registration under the Securities Act, based on the exemption from registration afforded by Section 4(a)(2) thereof.

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In September 2020, we issued to our Sponsor an unsecured convertible promissory note in the principal amount of \$795,003. Upon the Closing, this note automatically converted into 198,751 shares of our common stock. We issued the foregoing securities without registration under the Securities Act, based on the exemption from registration afforded by Section 4(a)(2) thereof.

Upon the Closing, we issued an aggregate of 73,623 shares of our common stock to three holders of promissory notes in the principal amount of approximately \$278,509 that were previously issued by 180 upon the automatic conversion of such notes. We issued such shares of common stock without registration under the Securities Act, based on the exemption from registration afforded by Section 4(a)(2) thereof and/or Rule 506(b) of Regulation D promulgated thereunder.

Upon the Closing, we issued an aggregate of 250,000 shares of our common stock to two vendors in satisfaction of amounts payable to such vendors. We issued such shares of common stock without registration under the Securities Act, based on the exemption from registration afforded by Section 4(a)(2) thereof and/or Rule 506(b) of Regulation D promulgated thereunder.

On February 19, 2021, we entered into a Securities Purchase Agreement with the purchasers identified on the signature pages thereto pursuant to which we sold to the purchasers an aggregate of 2,564,000 shares of our common stock and warrants to purchase up to an aggregate of 2,564,000 shares of our common stock at a combined purchase price of \$4.55 per share and accompanying warrant. The Offering closed on February 23, 2021. We issued such securities without registration under the Securities Act, based on the exemption from registration afforded by Section 4(a)(2) thereof and/or Rule 506(b) of Regulation D promulgated thereunder.

In March 2021, we issued: (i) 14,195 shares of common stock to a consultant for investor relations services rendered; (ii) 1,815 shares of common stock to an external consultant for investor relations services to be rendered; (iii) 22,870 shares of common stock to external consultants of our company for services rendered, at a price of \$6.34 per share; (iv) 2,503 shares of common stock for director fees due to Donald A. McGovern, Jr., our lead independent director, in consideration for services rendered; (v) 2,101 shares of common stock for director fees due to Larry Gold, an independent director, in consideration for services rendered; and (vi) 100,699 shares of common stock for services rendered in connection with a bonus to Prof. Jagdeep Nanchahal, the Chairman of our Clinical Advisory Committee. We issued such securities without registration under the Securities Act, based on the exemption from registration afforded by Section 4(a)(2) thereof and/or Rule 506(b) of Regulation D promulgated thereunder.

In March 2021, we issued 158,383 shares of common stock upon the conversion of \$432,384 of outstanding convertible notes at a conversion price of \$2.73 per share, pursuant to the terms of such notes. We issued such shares of common stock without registration based on the exemption from registration provided by Section 3(a)(9) of the Securities Act, as the securities were exchanged by us with our existing security holders in transactions where no commission or other remuneration was paid or given directly or indirectly for soliciting such exchange.

In April 2021, we issued 37,715 shares of common stock to Dr. Jagdeep Nanchahal, a consultant, pursuant to the terms of his consulting agreement, as partial consideration for a bonus owed to Dr. Nanchahal. We issued such securities without registration under the Securities Act, based on the exemption from registration afforded by Section 4(a)(2) thereof and/or Rule 506(b) of Regulation D promulgated thereunder.

On July 30, 2021, we entered into a Mutual Release and Settlement Agreement with Alpha Capital Anstalt pursuant to which we issued 150,000 shares of our common stock, and three-year warrants to purchase up to 25,000 shares of our common stock (exercisable at an initial exercise price of \$7.07 per share), to Alpha Capital Anstalt. We issued such securities without registration under the Securities Act, based on the exemption from registration afforded by Section 4(a)(2) thereof and/or Rule 506(b) of Regulation D promulgated thereunder.

In August 2021, we issued 5,135 shares of common stock for director fees due to Donald A. McGovern, Jr., our lead independent director, in consideration for services rendered, and 4,629 shares of common stock for director fees due to Larry Gold, an independent director, in consideration for services rendered. We issued such securities without registration under the Securities Act, based on the exemption from registration afforded by Section 4(a)(2) thereof and/or Rule 506(b) of Regulation D promulgated thereunder.

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On August 19, 2021, we entered into a Securities Purchase Agreement with the purchasers identified on the signature pages thereto pursuant to which we sold to the purchasers an aggregate of 2,500,000 shares of our common stock and warrants to purchase up to an aggregate of 2,500,000 shares of our common stock at a combined purchase price of \$6.00 per share and accompanying warrant. The Offering closed on August 23, 2021. We issued such securities without registration under the Securities Act, based on the exemption from registration afforded by Section 4(a)(2) thereof and/or Rule 506(b) of Regulation D promulgated thereunder.

On August 23, 2021, at the request of Prof. Nanchahal, we agreed to issue Prof. Nanchahal 61,535 shares of common stock in consideration for the remaining portion of a bonus payable based on a \$3.00 per share price. The shares were issued under our 2020 Omnibus Incentive Plan. We claim an exemption from registration pursuant to Section 4(a)(2) and/or Rule 506 of Regulation D of the Securities Act for such issuance.

Item 16. Exhibits and Financial Statement Schedules.

The exhibits listed on the Index to Exhibits of this Registration Statement are filed herewith or are incorporated herein by reference to other filings.

- (a) *Exhibits.* The following exhibits are included herein or incorporated herein by reference.

Exhibit No.	Description
2.1	Business Combination Agreement, dated as of July 25, 2019, by and among KBL Merger Corp. IV, 180, Katexco, CBR Pharma, 180 LP, Merger Sub and the Stockholder Representative (filed as Exhibit 2.1 to the registrant's Current Report on Form 8-K filed on July 26, 2019 and incorporated by reference herein).
2.2	Amendment No. 1 to the Business Combination Agreement, dated as of January 29, 2020, by and among KBL Merger Corp. IV, 180, Katexco, CBR Pharma, 180 LP, Merger Sub and the Stockholder Representative (filed as Exhibit 2.1 to the registrant's Current Report on Form 8-K filed on February 3, 2020 and incorporated by reference herein).
2.3	Amendment No. 2 to the Business Combination Agreement, dated as of August 7, 2020, by and among KBL Merger Corp. IV, 180, Katexco, CBR Pharma, 180 LP, Merger Sub and the Stockholder Representative (filed as Exhibit 2.1 to the registrant's Current Report on Form 8-K filed on August 13, 2020 and incorporated by reference herein).
3.1	Second Amended and Restated Certificate of Incorporation (filed as Exhibit 3.1 to the registrant's Current Report on Form 8-K filed on November 12, 2020 and incorporated by reference herein).
3.2	Amended and Restated Bylaws (filed as Exhibit 3.1 to the registrant's Current Report on Form 8-K filed on August 10, 2021 and incorporated by reference herein).
4.1	Specimen Common Stock Certificate (filed as Exhibit 4.2 to the registrant's Registration Statement Form S-1 filed on April 26, 2017 and incorporated by reference herein).
4.2	Specimen Warrant Certificate (filed as Exhibit 4.3 to the registrant's Registration Statement Form S-1 filed on April 26, 2017 and incorporated by reference herein).
4.3	Warrant Agreement, dated as of June 1, 2017, between Continental Stock Transfer & Trust Company and the Company (filed as Exhibit 4.1 to the registrant's Current Report on Form 8-K filed on June 7, 2017 and incorporated by reference herein).
4.4	Description of the registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934, as amended (filed as Exhibit 4.6 to the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2020 filed with the Commission on July 9, 2021 and incorporated herein by reference).
4.5	Form of 10% Senior Secured Convertible Promissory Note (filed as Exhibit 4.8 to the registrant's Current Report on Form 8-K filed on July 2, 2020 and incorporated herein by reference).
4.6	Form of 10% Senior Secured Convertible Promissory Note (filed as Exhibit 4.1 to the registrant's Current Report on Form 8-K filed on September 14, 2020 and incorporated herein by reference).
4.7	Form of Warrant issued pursuant to the Securities Purchase Agreement dated as of February 19, 2021 (filed as Exhibit 4.1 to the registrant's Current Report on Form 8-K filed on February 24, 2021 and incorporated herein by reference).
4.8	Form of Warrant issued pursuant to the Mutual Release and Settlement Agreement dated as of July 31, 2021 among Alpha Capital Anstalt and the registrant (filed as Exhibit 4.1 to the registrant's Current Report on Form 8-K filed on August 2, 2021 and incorporated herein by reference).

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Exhibit No.	Description
4.9	Form of Warrant issued pursuant to the Securities Purchase Agreement dated as of August 19, 2021 (filed as Exhibit 4.1 to the registrant’s Current Report on Form 8-K filed on August 24, 2021 and incorporated herein by reference).
5.1*	Opinion of DLA Piper LLP (US).
10.1	Registration Rights Agreement among the registrant and certain securityholders (filed as Exhibit 10.3 to the registrant’s Current Report on Form 8-K filed on June 7, 2017 and incorporated by reference herein).
10.2	Form of Indemnity Agreement (filed as Exhibit 10.8 to the registrant’s Registration Statement Form S-1 filed on April 26, 2017 and incorporated by reference herein).
10.3	Form of Guarantee and Commitment Agreement (filed as Exhibit 10.1 to the registrant’s Current Report on Form 8-K filed on July 26, 2019 and incorporated herein by reference).
10.4#	180 Life Sciences Corp. 2020 Omnibus Incentive Plan (filed as Exhibit 10.3 to the registrant’s Current Report on Form 8-K filed on November 12, 2020 and incorporated by reference herein).
10.5#	Form of Stock Option Agreement (Independent Directors August 2021 Grants) (filed as Exhibit 10.9 to the registrant’s Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2021 filed on August 16, 2021 and incorporated herein by reference).
10.6#	Form of Stock Option Agreement 180 Life Sciences Corp. 2020 Omnibus Incentive Plan (filed as Exhibit 4.2 to the registrant’s Form S-8 filed on September 30, 2021 and incorporated by reference herein).
10.7#	Form of Restricted Stock Grant Agreement and Stock Option Agreement 180 Life Sciences Corp. 2020 Omnibus Incentive Plan (filed as Exhibit 4.3 to the registrant’s Form S-8 filed on September 30, 2021 and incorporated by reference herein).
10.8	Promissory Note, dated March 15, 2019 issued to KBL IV Sponsor LLC (filed as Exhibit 10.8 to the registrant’s Registration Statement Form S-4 filed on November 12, 2019 and incorporated by reference herein).
10.9	Registration Rights Agreement, dated June 12, 2020, by and among the Company and the parties signatory thereto (filed as Exhibit 10.2 to the registrant’s Current Report on Form 8-K filed on July 2, 2020 and incorporated herein by reference).
10.10	Registration Rights Agreement, dated September 8, 2020, by and among the Company and the parties signatory thereto (filed as Exhibit 10.2 to the registrant’s Current Report on Form 8-K filed on September 14, 2020 and incorporated herein by reference).
10.11	Amended and Restated Promissory Note, dated September 8, 2020, issued to KBL IV Sponsor LLC (filed as Exhibit 10.24 to the registrant’s Registration Statement on Form S-1 filed on October 19, 2020 and incorporated by reference herein).
10.12#	Employment Agreement, dated July 1, 2020, by and between 180 Life Corp. (f/k/a 180 Life Sciences Corp.) and James N. Woody, M.D., Ph.D. (filed as Exhibit 10.4 to the registrant’s Current Report on Form 8-K filed on November 12, 2020 and incorporated by reference herein).
10.13#	First Amendment to Employment Agreement by and between 180 Life Corp. (f/k/a 180 Life Sciences Corp.) and James N. Woody, M.D., Ph.D. (filed as Exhibit 10.5 to the registrant’s Current Report on Form 8-K filed on November 12, 2020 and incorporated herein by reference).
10.14	Amendment Agreement dated November 25, 2020 (filed as Exhibit 10.1 to the registrant’s Current Report on Form 8-K filed on November 27, 2020 and incorporated herein by reference).
10.15	Registration Rights Agreement dated as of February 23, 2021 by and between 180 Life Sciences Corp. and the purchasers signatory thereto (filed as Exhibit 10.4 to the registrant’s Current Report on Form 8-K filed on February 24, 2021 and incorporated herein by reference).
10.16#	Form of Lock-Up Agreement between 180 Life Sciences Corp. and its directors and executive officers (filed as Exhibit 10.5 to the registrant’s Current Report on Form 8-K filed on February 24, 2021 and incorporated herein by reference).
10.17#	Consultancy Agreement dated February 22, 2021, by and between 180 Life Sciences Corp. and Prof. Jagdeep Nanchahal (filed as Exhibit 10.1 to the registrant’s Current Report on Form 8-K filed on March 3, 2021 and incorporated herein by reference).
10.18#	Amended and Restated Employment Agreement dated February 25, 2021 and effective November 6, 2020, by and between 180 Life Sciences Corp. and James N. Woody (filed as Exhibit 10.2 to the registrant’s Current Report on Form 8-K filed on March 3, 2021 and incorporated herein by reference).
10.19#	James N. Woody — Stock Option Agreement effective February 26, 2021 (filed as Exhibit 10.3 to the registrant’s Current Report on Form 8-K filed on March 3, 2021 and incorporated herein by reference).

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Exhibit No.	Description
10.20#	Employment Agreement dated February 24, 2021, and effective November 6, 2020, by and between 180 Life Sciences Corp. and Ozan Pamir and Amendment and Correction Thereto dated March 1, 2021 (filed as Exhibit 10.4 to the registrant’s Current Report on Form 8-K filed on March 3, 2021 and incorporated herein by reference).
10.21#	Ozan Pamir — Stock Option Agreement effective February 26, 2021 (filed as Exhibit 10.5 to the registrant’s Current Report on Form 8-K filed on March 3, 2021 and incorporated herein by reference).
10.22#	First Amendment to Consultancy Agreement dated March 31, 2021, by and between 180 Life Sciences Corp. and Prof. Jagdeep Nanchahal (filed as Exhibit 10.2 to the registrant’s Current Report on Form 8-K filed on April 2, 2021 and incorporated herein by reference).
10.23	Settlement and Mutual Release Agreement dated May 4, 2021 by and between 180 Life Sciences Corp. and EarlyBirdCapital, Inc. (filed as Exhibit 10.1 to the registrant’s Current Report on Form 8-K filed on May 7, 2021 and incorporated herein by reference).
10.24#	Second Amendment to Employment Agreement dated May 27, 2021, and effective November 6, 2020, by and between 180 Life Sciences Corp. Katexco Pharmaceuticals Corp. and Ozan Pamir (filed as Exhibit 10.2 to the registrant’s Current Report on Form 8-K filed on May 27, 2021 and incorporated herein by reference).
10.25#	Form of Director Nominee Offer Letter (filed as Exhibit 10.1 to the registrant’s Current Report on Form 8-K filed on May 27, 2021 and incorporated herein by reference).
10.26#	Employment Agreement dated August 21, 2019 between the registrant and Jonathan Rothbard (filed as Exhibit 10.44 to the registrant’s Annual Report on Form 10-K for the fiscal year ended December 31, 2020 filed on July 9, 2021 and incorporated herein by reference).
10.27	Mutual Release and Settlement Agreement dated as of July 31, 2021 among Alpha Capital Anstalt and the registrant (filed as Exhibit 10.1 to the registrant’s Current Report on Form 8-K filed on August 2, 2021 and incorporated herein by reference).
10.28	Registration Rights Agreement dated as of August 23, 2021 by and between 180 Life Sciences Corp. and the purchasers signatory thereto (filed as Exhibit 10.3 to the registrant’s Current Report on Form 8-K filed on August 24, 2021 and incorporated herein by reference).
10.29	Form of Lock-Up Agreement between the 180 Life Sciences Corp. and its directors and executive officers (filed as Exhibit 10.4 to the registrant’s Current Report on Form 8-K filed on August 24, 2021 and incorporated herein by reference).
10.30£	Settlement and Mutual Release Agreement dated September 17, 2021, by and between 180 Life Sciences Corp. and Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. (filed as Exhibit 10.1 to the registrant’s Current Report on Form 8-K filed on September 20, 2021 and incorporated herein by reference).
10.31	Debt Conversion Agreement dated September 30, 2021, by and between 180 Life Sciences Corp. and Dr. Lawrence Steinman and Sir Marc Feldmann (filed as Exhibit 10.1 to the registrant’s Current Report on Form 8-K filed on October 5, 2021 and incorporated by reference herein).
10.32#	Employment Agreement dated October 29, 2021, by and between 180 Life Sciences Corp. and Quan Anh Vu (filed as Exhibit 10.1 to the registrant’s Current Report on Form 8-K filed on October 5, 2021 and incorporated by reference herein).
10.33#	Consulting Agreement dated November 17, 2021, by and between 180 Life Sciences Corp. and Lawrence Steinman, M.D. (filed as Exhibit 10.1 to the registrant’s Current Report on Form 8-K filed on November 2, 2021 and incorporated by reference herein).
10.34*	Form of 180 Life Sciences Corp. 2022 Omnibus Incentive Plan
21.1	List of Subsidiaries (filed as Exhibit 21.1 to the registrant’s Annual Report on Form 10-K for the fiscal year ended December 31, 2021 filed on March 31, 2022 and incorporated herein by reference).
23.1*	Consent of Marcum LLP, independent registered public accounting firm.
23.2*	Consent of DLA Piper LLP (US) (included in Exhibit 5.1).
24*	Power of Attorney (included on signature page of this Registration Statement).
107*	Filing Fee Table

- * Filed herewith
Management contract or compensatory plans or arrangements
£ Certain schedules and exhibits have been omitted pursuant to Item 601(a)(5) of Regulation S-K.

(b) *Financial Statement Schedules.* All financial statement schedules are omitted because they are not applicable or not required or because the required information is included in the financial statements or notes thereto.

Item 17. Undertakings.

- (a) The undersigned registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.
 - (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
 - (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
 - (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (b) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than a payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, on May 6, 2022.

	180 LIFE SCIENCES CORP.
Date: May 6, 2022	By: <i>/s/ James N. Woody</i>
	Name: James N. Woody
	Title: Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that the persons whose signature appears below constitute and appoint James N. Woody, M.D., Ph.D. and Ozan Pamir as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place, and stead, in any and all capacities, to sign any and all amendments (including pre-effective and post-effective amendments) to this registration statement and to sign any registration statement and amendments thereto for the same offering filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all which said attorneys-in-fact and agents, or any of them, or their or his or her substitute or substitutes, may lawfully do, or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities indicated on May 6, 2022.

Signature	Title	Date
<i>/s/ James N. Woody</i>	Chief Executive Officer and Director	May 6, 2022
James N. Woody	(Principal Executive Officer)	
<i>/s/ Ozan Pamir</i>	Interim Chief Financial Officer	May 6, 2022
Ozan Pamir	(Principal Financial and Accounting Officer)	
<i>/s/ Marc Feldmann</i>	Executive Co-Chairman and Director	May 6, 2022
Marc Feldmann		
<i>/s/ Lawrence Steinman</i>	Executive Co-Chairman and Director	May 6, 2022
Lawrence Steinman		
<i>/s/ Larry Gold</i>	Director	May 6, 2022
Larry Gold		
<i>/s/ Donald A. McGovern, Jr.</i>	Lead Director	May 6, 2022
Donald A. McGovern, Jr.		
<i>/s/ Pamela G. Marrone</i>	Director	May 6, 2022
Pamela G. Marrone		
<i>/s/ Francis Knuettel II</i>	Director	May 6, 2022
Francis Knuettel II		
<i>/s/ Russell T. Ray</i>	Director	May 6, 2022
Russell T. Ray		
<i>/s/ Teresa DeLuca</i>	Director	May 6, 2022
Teresa DeLuca		



DLA Piper LLP (US)
 One Liberty Place
 1650 Market Street, Suite 5000
 Philadelphia, Pennsylvania 19103
 www.dlapiper.com

May 6, 2022

180 Life Sciences Corp.
 3000 El Camino Real, Bldg. 4, Suite 200
 Palo Alto, CA 94306

**Re: 180 Life Sciences Corp.
 Post-Effective Amendment No. 1 to the Registration Statement on Form S-1 (File No. 333-259209)**

Ladies and Gentlemen:

We are issuing this opinion in our capacity as counsel to 180 Life Sciences Corp., a Delaware corporation (the “**Company**”), in connection with the Registration Statement on Form S-1 (File No. 333-259209), originally filed with the Securities and Exchange Commission (the “**Commission**”) on August 31, 2021, as amended by Post-Effective Amendment No. 1 being filed with the Commission on the date hereof (such registration statement as so amended, the “**Registration Statement**”) under the Securities Act of 1933, as amended (the “**Securities Act**”).

The Registration Statement relates to the resale of up to 4,770,008 shares of the Company’s common stock, par value \$0.0001 per share (the “**Common Stock**”) to be offered for resale by certain stockholders of the Company, including: (i) 46,203 shares of Common Stock held by certain of the remaining October Selling Stockholders (as defined in the Registration Statement) (the “**Original Shares**”); (ii) 33,963 shares issuable upon the exercise of the warrants held by certain of the remaining October Selling Stockholders (the “**Original Warrants**”); (iii) 2,259,000 shares issuable to certain of the selling stockholders upon the exercise of warrants to purchase shares of Common Stock that were issued to such selling stockholders upon the closing of the private placement contemplated by the February SPA (as defined in the Registration Statement) (the “**February PIPE Warrants**”); (iv) 151,633 shares of Common Stock issued to certain of the selling stockholders upon the conversion of the Bridge Notes (as defined in the Registration Statement) (the “**Bridge Note Shares**”); (v) 2,175,000 shares of Common Stock issuable to certain of the selling stockholders upon the exercise of warrants to purchase shares of Common Stock that were issued to such selling stockholders upon the closing of the private placement contemplated by the August SPA (as defined in the Registration Statement) (the “**August PIPE Warrants**”); (vi) 5,551 shares of Common Stock issued to Alpha Capital Anstalt pursuant to the Alpha Settlement Agreement (as defined in the Registration Statement) (the “**Alpha Shares**”); (vii) 25,000 shares of Common Stock issuable to Alpha Capital Anstalt upon the exercise of the Alpha Settlement Warrants (as defined in the Registration Statement); (viii) 10,000 shares of Common Stock issued to EarlyBirdCapital, Inc. pursuant to the EarlyBird Settlement Agreement (as defined in the Registration Statement) (the “**EarlyBird Shares**”); and (ix) 63,658 shares of Common Stock issuable upon the exercise of a warrant to purchase shares of Common Stock that was issued to Alliance Global Partners in March 2021 (the “**AGP Warrants**”).

In addition, the Registration Statement also covers the issuance by the Company of up to 5,750,000 shares of Common Stock that are issuable by the Company upon the exercise of the public warrants included in the units issued in the Company’s initial public offering, with each warrant exercisable for one-half of one share of Common Stock at an exercise price of \$11.50 per whole share of Common Stock, in accordance with their terms (the “**Public Warrants**”).

We have examined such documents and considered such legal matters as we have deemed necessary and relevant as the basis for the opinion set forth below, including, without limitation, the Registration Statement, the Certificate of Incorporation and Bylaws of the Company (each as amended and restated to date), the form of Original Warrant, the February PIPE Warrants, the August PIPE Warrants, the Alpha Settlement Warrants, the form of Public Warrant and the accompanying warrant agreement, and certain resolutions of the Company’s board of directors relating to the Registration Statement, the Original Shares, the Original Warrants, the February SPA, the Bridge Notes, the August SPA, the Alpha Settlement Agreement, the EarlyBird Settlement Agreement, the AGP Warrants and the Public Warrants. With respect to such examination, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as reproduced or certified copies, and the authenticity of the originals of those latter documents. As to questions of fact material to this opinion, we have, to the extent that we have deemed appropriate, relied upon certain representations of certain officers of the Company.

180 Life Sciences Corp.
 May 6, 2022
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Based upon the foregoing, we are of the opinion that:

- (i) the Original Shares have been duly authorized and are validly issued, fully paid and non-assessable;
- (ii) the shares of Common Stock issuable upon the exercise of the Original Warrants have been duly authorized and, when issued in accordance with the terms and provisions of the Original Warrants, including without limitation, the payment of the exercise price required thereunder, will be validly issued, fully paid and non-assessable;
- (iii) the shares of Common Stock issuable upon the exercise of the February PIPE Warrants have been duly authorized and, when issued in accordance with the terms and provisions of the February SPA and the February PIPE Warrants, including without limitation, the payment of the exercise price required thereunder, will be validly issued, fully paid and non-assessable;
- (iv) the Bridge Note Shares have been duly authorized and are validly issued, fully paid and non-assessable;
- (v) the shares of Common Stock issuable upon the exercise of the August PIPE Warrants have been duly authorized and, when issued in accordance with the terms and provisions of the August SPA and the August PIPE Warrants, including without limitation, the payment of the exercise price required thereunder, will be validly issued, fully paid and non-assessable;
- (vi) the Alpha Shares have been duly authorized and are validly issued, fully paid and non-assessable;
- (vii) the shares of Common Stock issuable upon the exercise of the Alpha Settlement Warrants have been duly authorized and, when issued in accordance with the terms and provisions of the Alpha Settlement Warrants, including without limitation, the payment of the exercise price required thereunder, will be validly issued, fully paid and non-assessable;

- (viii) the EarlyBird Shares have been duly authorized and are validly issued, fully paid and non-assessable;
- (ix) the shares of Common Stock issuable upon the exercise of the AGP Warrants have been duly authorized and, when issued in accordance with the terms and provisions of the AGP Warrants, including without limitation, the payment of the exercise price required thereunder, will be validly issued, fully paid and non-assessable; and
- (x) the shares of Common Stock issuable upon the exercise of the Public Warrants have been duly authorized and, when issued in accordance with the terms and provisions of the Public Warrants, including without limitation, the payment of the exercise price required thereunder, will be validly issued, fully paid and non-assessable.

With your consent, we have assumed (a) that the agreements and warrants described above have been duly authorized, executed and delivered by the parties thereto other than the Company, (b) that such agreements and warrants constitute legally valid and binding obligations of the parties thereto other than the Company, enforceable against each of them in accordance with their respective terms, and (c) that the status of the agreements and warrants as legally valid and binding obligations of the parties will not be affected by any (i) breaches of, or defaults under, agreements or instruments, (ii) violations of statutes, rules, regulations or court or governmental orders or (iii) failures to obtain required consents, approvals or authorizations from, or to make required registrations, declarations or filings with, governmental authorities.

180 Life Sciences Corp.
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Our opinions expressed above are subject to the qualifications that we express no opinion as to the applicability of, compliance with, or effect of (i) any bankruptcy, insolvency, reorganization, fraudulent transfer, fraudulent conveyance, moratorium or other similar law or judicially developed doctrine in this area (such as substantive consolidation or equitable subordination) affecting the enforcement of creditors' rights generally, (ii) general principles of equity (regardless of whether enforcement is considered in a proceeding in equity or at law), (iii) an implied covenant of good faith and fair dealing, (iv) public policy considerations which may limit the rights of parties to obtain certain remedies, (v) any requirement that a claim with respect to any security denominated in other than U.S. dollars (or a judgment denominated in other than U.S. dollars in respect of such claim) be converted into U.S. dollars at a rate of exchange prevailing on a date determined in accordance with applicable law, (vi) governmental authority to limit, delay or prohibit the making of payments outside of the United States or in a foreign currency or currency unit, (vii) any state securities or blue sky laws, (viii) any laws except the laws of the State of New York and the Delaware General Corporation Law.

We hereby consent to the filing of this opinion with the Commission as Exhibit 5.1 to the Registration Statement. We also consent to the reference to our firm under the heading "Legal Matters" in the Registration Statement. In giving this consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

This opinion is limited to the specific issues addressed herein, and no opinion may be inferred or implied beyond that expressly stated herein. We assume no obligation to revise or supplement this opinion should the present laws of the State of New York or the Delaware General Corporation Law be changed by legislative action, judicial decision or otherwise.

This opinion is furnished to you in connection with the filing of the Registration Statement and is not to be used, circulated, quoted or otherwise relied upon for any other purposes.

Very truly yours,

/s/ DLA Piper LLP (US)

180 LIFE SCIENCES CORP.
2022 OMNIBUS INCENTIVE PLAN

PURPOSES

This 180 Life Sciences Corp. 2022 Omnibus Incentive Plan, as may be amended from time to time (the "**Plan**"), is intended to promote the interests of 180 Life Sciences Corp. (the "**Company**") and its Subsidiaries (as defined below) and its stockholders by (i) attracting and retaining directors, executive officers, employees and consultants of outstanding ability; (ii) motivating such individuals by means of performance-related incentives to achieve the longer-range performance goals of the Company and its Subsidiaries; and (iii) enabling such individuals to participate in the long-term growth and financial success of the Company.

Article I
Definitions

Whenever the following terms are used in this Plan, they shall have the meanings specified below unless the context clearly indicates to the contrary.

Section 1.1 "**Administrator**" means the Board or the Compensation Committee, as determined by the Board from time to time. In exercising its discretion hereunder, the Board shall endeavor to cause the Administrator to satisfy any requirements applicable to qualify for an exemption available under Rule 16b-3 promulgated under the Exchange Act or any other regulatory or administrative requirements that may be applicable with respect to Awards granted hereunder.

Section 1.2 "**Affiliate**" means, with respect to any Person, any other Person directly or indirectly controlling, controlled by or under common control with, such Person where "control" (including the terms "controlling," "controlled by," and "under common control with") means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of securities, by contract, or otherwise.

Section 1.3 "**Alternative Award**" has the meaning set forth in Section 10.1.

Section 1.4 "**Alternative Performance Awards**" has the meaning set forth in Section 10.2.

Section 1.5 "**Award**" means any Option, Restricted Stock, Restricted Stock Unit, Performance Award, SAR, Dividend Equivalent or other Stock-Based Award granted to a Participant pursuant to the Plan, including an Award combining two or more types of Awards into a single grant.

Section 1.6 "**Award Agreement**" means any written agreement, contract or other instrument or document evidencing an Award, including through an electronic medium. The Administrator may provide for the use of electronic, internet or other non-paper Award Agreements, and the use of electronic, internet or other non-paper means for the Participant's acceptance of, or actions under, an Award Agreement unless otherwise expressly specified herein.

Section 1.7 "**Board**" means the Board of Directors of the Company.

Section 1.8 [Reserved]

Section 1.9 "**Cause**" means, unless otherwise provided in the Award Agreement, any of the following: (A) the Participant's commission of a crime involving fraud, theft, false statements or other similar acts or commission of any crime that is a felony (or comparable classification in a jurisdiction that does not use these terms); (b) the Participant's engaging in any conduct that constitutes an employment disqualification under applicable law with respect to a material portion of the Participant's work duties; (c) the Participant's willful or grossly negligent failure to perform his or her material employment-related duties for the Company Group, or willful misconduct in the performance of such duties; (d) the Participant's material violation of any Company or Subsidiary policy as in effect from time to time; (e) the Participant's engaging in any act or making any public statement that materially impairs, impugns, denigrates, disparages or negatively reflects upon the name, reputation or business interests of the Company or its Subsidiaries; or (f) the Participant's material breach of any Award Agreement, employment agreement, or noncompetition, nondisclosure or nonsolicitation agreement to which the Participant is a party or by which the Participant is bound; provided that in the case of any Participant

who, as of the date of determination, is a party to an effective services, severance, consulting or employment agreement with the Company or any Subsidiary of the Company that employs such individual, "Cause" has the meaning, if any, specified in such agreement. A termination for Cause shall be deemed to include a determination by the Administrator following a Participant's termination of employment that circumstances existing prior to such termination would have entitled the Company or one of its Subsidiaries to have terminated such Participant's employment for Cause. All rights a Participant has or may have under the Plan shall be suspended automatically during the pendency of any investigation by the Administrator or its designee, or during any negotiations between the Administrator or its designee and the Participant, regarding any actual or alleged act or omission by the Participant of the type described in the applicable definition of Cause.

Section 1.10 "**Change in Control**" means the first to occur of any of the following events after the Effective Date:

(a) any Person becomes the beneficial owner (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of 30% or more of either (x) the then-outstanding shares of common stock of the Company (the "**Outstanding Company Common Stock**") or (y) the combined voting power of the then outstanding voting securities of the Company entitled to vote generally in the election of directors (the "**Outstanding Company Voting Securities**");

(b) the individuals who constitute the Board as of the Effective Date (the "**Incumbent Board**") cease for any reason to constitute at least a majority of the Board; provided, however, that any individual becoming a Director subsequent to the Effective Date whose election, or nomination for election, by the Company's stockholders, was approved by a vote of at least a majority of the Directors then comprising the Incumbent Board shall be considered as though such individual was a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents by or on behalf of a Person other than the Board; or

(c) the consummation of a reorganization, merger, statutory share exchange or consolidation or similar transaction involving the Company or any of its Subsidiaries, a sale or other disposition of all or substantially all of the assets of the Company, or the acquisition of assets or stock of another entity by the Company or any of its Subsidiaries (each, a "**Business Combination**"), in each case, unless, following such Business Combination, (i) all or substantially all of the individuals and entities that were the beneficial owners of the Outstanding Company Common Stock and the Outstanding Company Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of the then-outstanding shares of common stock (or, for a non-corporate entity, equivalent securities) and the combined voting power of the then-outstanding voting securities entitled to vote generally in the election of Directors (or, for a non-corporate entity, equivalent governing body), as the case may be, of the entity resulting from such Business Combination (including, without limitation, an entity that, as a result of such transaction, owns the Company or all or substantially all of the Company's assets either directly or through one or more Subsidiaries) in substantially the same proportions as their ownership immediately prior to such Business Combination of the Outstanding Company Common Stock and the Outstanding Company Voting Securities, as the case may be, (ii) no Person (excluding any corporation resulting from such Business Combination or any employee benefit plan (or related trust) of the Company or such corporation resulting from such Business Combination) beneficially owns, directly or indirectly, 30% or more of, respectively, the then-outstanding shares of common stock (or, for a non-corporate entity, equivalent securities) of the entity resulting from such Business Combination or the combined voting power of the then-outstanding voting securities of such entity entitled to vote generally in the election of directors (or, for a non-corporate entity, equivalent securities), except to the extent that such ownership existed prior to the Business Combination, and (iii) at least a majority of the members of the board of directors (or, for a non-corporate entity, equivalent governing body) of the entity resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement or of the action of the Board providing for such Business Combination;

in each case, provided that, as to Awards subject to Section 409A of the Code, the payment or settlement of which will occur by reason of the Change in Control, such event also constitutes a "change in control" within the meaning of Section 409A of the Code. In addition, notwithstanding the foregoing, a "Change in Control" shall not be deemed to occur if the Company files for bankruptcy, liquidation or reorganization under the United States Bankruptcy Code or as a result of any restructuring that occurs as a result of any such proceeding.

Section 1.11 “**Change in Control Price**” means the price per share of Company Common Stock paid in conjunction with any transaction resulting in a Change in Control. If any part of the offered price is payable other than in cash, the value of the non-cash portion of the Change in Control Price shall be determined in good faith by the Administrator as constituted immediately prior to the Change in Control.

Section 1.12 “**Code**” means the Internal Revenue Code of 1986, as amended.

Section 1.13 “**Company Common Stock**” means the common stock, par value \$0.0001 per share, of the Company and such other stock or securities into which such common stock is hereafter converted or for which such common stock is exchanged.

Section 1.14 “**Company Group**” means the Company and its direct or indirect Subsidiaries.

Section 1.15 “**Compensation Year**” means the period from one annual meeting of stockholders to the next following annual meeting of stockholders.

Section 1.16 “**Competitive Activity**” means a Participant’s material breach of restrictive covenants relating to noncompetition, nonsolicitation (of customers or employees) or preservation of confidential information or other covenants having the same or similar scope, included in an Award Agreement or other agreement to which the Participant and the Company or any of its Affiliates is a party.

Section 1.17 “**Corporate Event**” means, as determined by the Administrator, any transaction or event described in Section 3.3(a) or any unusual or infrequently occurring transaction or event affecting the Company, any Subsidiary of the Company, or the financial statements of the Company or any of its Subsidiaries, or changes in applicable laws, regulations or accounting principles (including, without limitation, a recapitalization of the Company).

Section 1.18 “**Director**” means a member of the Board or a member of the board of directors of any Subsidiary.

Section 1.19 “**Disability**” means (x) for Awards that are not subject to Section 409A of the Code, “disability” as such term is defined in the long-term disability insurance plan or program of the Company or any Subsidiary then covering the Participant, and (y) for Awards that are subject to Section 409A of the Code, “disability” has the meaning set forth in Section 409A(a)(2)(c) of the Code; provided that with respect to Awards that are not subject to Section 409A, in the case of any Participant who, as of the date of determination, is a party to an effective services, severance, consulting or employment agreement with the Company or any Subsidiary of the Company that employs such individual, “Disability” has the meaning, if any, specified in such agreement.

Section 1.20 “**Dividend Equivalent**” means the right to receive payments, in cash or in Shares, based on dividends paid with respect to Shares.

Section 1.21 “**Eligible Representative**” for a Participant means such Participant’s personal representative or such other person as is empowered under the deceased Participant’s will or the then applicable laws of descent and distribution to represent the Participant hereunder.

Section 1.22 “**Employee**” means any individual classified as an employee by the Company or one of its Subsidiaries.

Section 1.23 “**Exchange Act**” means the Securities Exchange Act of 1934, as amended.

Section 1.24 “**Executive Officer**” means each person who is an officer or employee of the Company or any of its Subsidiaries and who is subject to the reporting requirements under Section 16(a) of the Exchange Act.

Section 1.25 “**Fair Market Value**” means, unless otherwise determined by the Administrator from time to time, the closing transaction price of a Share as reported on the NASDAQ Stock Market LLC on the date as of which such value is being determined or, if Shares are not listed on the NASDAQ Stock Market LLC, the closing transaction price of a Share on the principal national stock exchange on which Shares are traded on the date as of which such value is being determined or, if there shall be no reported transactions for such date, on the next preceding date for which transactions were reported; provided, however, that if Shares are not listed on a national stock exchange or if Fair Market Value for any date cannot be so determined, Fair Market Value shall be determined by the Administrator by whatever means or method as the Administrator, in the good faith exercise of its discretion, shall at such time deem appropriate and in compliance with Section 409A of the Code.

Section 1.26 “**Good Reason**” means, unless otherwise provided in the Award Agreement, a material reduction in the Participant’s base salary or a material reduction in the Participant’s target annual cash incentive compensation opportunity, in each case, other than (a) any isolated or inadvertent failure by the Company or the applicable Subsidiary that is not in bad faith and is cured within thirty (30) business days after the Participant gives the Company or the applicable Subsidiary notice of such event or (b) a reduction of 10% or less which is applicable to all employees in the same salary grade as the Participant; provided that in the case of any Participant who, as of the date of determination, is a party to an effective services, severance, consulting or employment agreement with the Company or any Subsidiary of the Company that employs such individual, “Good Reason” has the meaning, if any, specified in such agreement.

Section 1.27 “**Incentive Stock Option**” means an Option which qualifies under Section 422 of the Code and is expressly designated as an Incentive Stock Option in the Award Agreement.

Section 1.28 “**Non-Qualified Stock Option**” means an Option that is not an Incentive Stock Option.

Section 1.29 “**Option**” means an option to purchase Company Common Stock granted under the Plan. The term “Option” includes both an Incentive Stock Option and a Non-Qualified Stock Option.

Section 1.30 “**Participant**” means any Service Provider who has been granted an Award pursuant to the Plan.

Section 1.31 “**Performance Award**” means a Performance Shares or a Performance Unit.

Section 1.32 “**Performance Cycle**” means the period of time selected by the Administrator during which performance is measured for the purpose of determining the extent to which a Performance Award has been earned or vested.

Section 1.33 “**Performance Goals**” means the objectives established by the Administrator for a Performance Cycle pursuant to Section 6.5 for the purpose of determining the extent to which a Performance Award has been earned or vested.

Section 1.34 “**Performance Share**” means an Award granted pursuant to Article VI of the Plan of a Share or a contractual right to receive a Share (or the cash equivalent thereof) upon the achievement, in whole or in part, of the applicable Performance Goals.

Section 1.35 “**Performance Unit**” means a U.S. Dollar-denominated unit (or a unit denominated in the Participant’s local currency) granted pursuant to Article VI of the Plan, payable in cash or in Shares upon the achievement, in whole or in part, of the applicable Performance Goals.

Section 1.36 “**Person**” means an individual, partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture, governmental authority or any other entity of whatever nature.

Section 1.37 “**Replacement Awards**” means Shares or Awards issued in assumption of, or in substitution for, any outstanding awards of any entity acquired in any form or combination by the Company or any of its Subsidiaries.

Section 1.38 “**Restricted Stock**” means an Award granted pursuant to Section 5.1.

Section 1.39 “**Restricted Stock Unit**” means an Award granted pursuant to Section 5.2.

Section 1.40 “**Securities Act**” means the Securities Act of 1933, as amended.

Section 1.41 “**Service Provider**” means an Employee, Director or consultant of the Company or any of its Subsidiaries.

Section 1.42 “**Share**” means a share of Company Common Stock.

Section 1.43 “**Stock Appreciation Right**” or “**SAR**” means the right to receive a payment from the Company in cash and/or Shares equal to the excess, if any, of the Fair Market Value of one Share on the exercise date over a specified price (the “**Base Price**”) fixed by the Administrator on the grant date (which specified price shall not be less than the Fair Market Value of one Share on the grant date).

Section 1.44 “**Subsidiary**” means any entity that is directly or indirectly controlled by the Company or any entity in which the Company directly or indirectly has at least a 50% equity interest.

Section 1.45 “**Termination of employment,**” “**termination of service**” and any similar term or terms means, with respect to a Director who is not an Employee of the Company or any Subsidiary, the date upon which such Director ceases to be a member of the Board or of the board of directors of any Subsidiary, with respect to a consultant of the Company or any of its Subsidiaries, the date upon which such consultant ceases to provide services to the Company and its Subsidiaries and, with respect to an Employee, the date he or she ceases to be an Employee; provided that with respect to any Award subject to Section 409A of the Code, such terms shall mean “separation from service,” as defined in Section 409A of the Code and the rules, regulations and guidance promulgated thereunder. Unless otherwise determined by the Administrator, a “termination of employment” or “termination of service” shall not occur if an Employee, consultant or Director, immediately upon ceasing to provide services in such capacity, commences to or continues to provide services to the Company or any of its Affiliates in another of such capacities.

Article II **ADMINISTRATION**

Section 2.1 Powers of the Administrator. The Plan shall be administered by the Administrator. The Administrator shall have the sole and complete authority and discretion to: (i) determine the type or types of Awards to be granted to each Participant; (ii) select the Service Providers to whom Awards may from time to time be granted; (iii) determine all matters and questions related to the termination of service of a Service Provider with respect to any Award granted to him or her; (iv) determine the number of Awards to be granted and the number of Shares to which an Award will relate; (v) approve forms of agreement for use under the Plan, which need not be identical for each Service Provider; (vi) determine the terms and conditions of any Awards (including, without limitation, the exercise price, the time or times when Awards may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions and any restriction or limitation regarding any Award or the Company Common Stock relating thereto) based in each case on such factors as the Administrator shall determine; (vii) prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to Subplans (as defined in Section 2.4) established for the purpose of satisfying applicable foreign laws; (viii) determine whether, to what extent, and pursuant to what circumstances an Award may be settled in, or the exercise or purchase price of an Award may be paid in, cash, Company Common Stock, other Awards, or other property, or an Award may be canceled, forfeited or surrendered; (ix) suspend or accelerate the vesting of any Award granted under the Plan or waive the forfeiture restrictions or any other restriction or limitation regarding any Awards or the Company Common Stock relating thereto; (x) construe and interpret the terms of the Plan and Awards granted pursuant to the Plan; and (xi) make all other decisions and determinations that may be required pursuant to the Plan or as the Administrator deems necessary or advisable to administer the Plan. Any determination made by the Administrator under the Plan, including, without limitation, under Section 3.3, shall be final, binding and conclusive on all Participants and other persons having or claiming any right or interest under the Plan. The Administrator’s determinations under the Plan need not be uniform and may be made by the Administrator selectively among persons who receive, or are eligible to receive, Awards under the Plan, whether or not such persons are similarly situated.

Section 2.2 Delegation by the Administrator. The Administrator may delegate, subject to such terms or conditions or guidelines as it shall determine, to any officer or group of officers, or Director or group of Directors of the Company or its Subsidiaries any portion of its authority and powers under the Plan with respect to Participants who are not Executive Officers or non-employee directors of the Board; provided that any delegation to one or more officers of the Company shall be subject to and comply with applicable law.

Section 2.3 Expenses, Professional Assistance, No Liability. All expenses and liabilities incurred by the Administrator in connection with the administration of the Plan shall be borne by the Company. The Administrator may elect to engage the services of attorneys, consultants, accountants or other persons. The Administrator, the Company and its officers and Directors shall be entitled to rely upon the advice, opinions or valuations of any such persons. The Administrator (and its members) shall not be personally liable for any action, determination or interpretation made with respect to the Plan or the Awards, and the Administrator (and its members) shall be fully protected by the Company with respect to any such action, determination or interpretation.

Section 2.4 Participants Based Outside the United States. To conform with the provisions of local laws and regulations, or with local compensation practices and policies, in foreign countries in which the Company or any of its Subsidiaries operate, but subject to the limitations set forth herein regarding the maximum number of shares issuable hereunder and the maximum award to any single Participant, the Administrator may (i) modify the terms and conditions of Awards granted to Employees employed and consultants who provide services outside the United States

("Non-U.S. Awards"), (ii) establish subplans with such modifications as may be necessary or advisable under the circumstances ("Subplans") and (iii) take any action which it deems advisable to obtain, comply with or otherwise reflect any necessary governmental regulatory procedures, exemptions or approvals with respect to the Plan. The Administrator's decision to grant Non-U.S. Awards or to establish Subplans is entirely voluntary, and at the complete discretion of the Administrator. The Administrator may amend, modify or terminate any Subplans at any time, and such amendment, modification or termination may be made without prior notice to the Participants. The Company, Affiliates and members of the Administrator shall not incur any liability of any kind to any Participant as a result of any change, amendment or termination of any Subplan at any time. The benefits and rights provided under any Subplan or by any Non-U.S. Award (x) are wholly discretionary and, although provided by either the Company or an Affiliate of the Company, do not constitute regular or periodic payments and (y) except as otherwise required under applicable laws, are not to be considered part of the Participant's salary or compensation under the Participant's employment with the Participant's local employer for purposes of calculating any severance, resignation, redundancy or other end of service payments, vacation, bonuses, long-term service awards, indemnification, pension or retirement benefits, or any other payments, benefits or rights of any kind. If a Subplan is terminated, the Administrator may direct the payment of Non-U.S. Awards (or direct the deferral of payments whose amount shall be determined) prior to the dates on which payments would otherwise have been made, and determine if such payments may be made in a lump sum or in installments.

Article III **SHARES SUBJECT TO PLAN**

Section 3.1 Shares Subject to Plan.

(a) Subject to Section 3.3 and Section 3.6, the aggregate number of Shares which may be issued under this Plan shall be 2,400,000 (the "**Share Limit**"). All of the Shares reserved under the Plan may be issued in the form of Incentive Stock Options under the Plan, subject to the limitation set forth in Section 3.6. The Shares issued under the Plan may be authorized but unissued, or reacquired Company Common Stock. No provision of this Plan shall be construed to require the Company to maintain the Shares in certificated form. Unless the Administrator shall determine otherwise, (x) Awards may not consist of fractional shares and shall be rounded down to the nearest whole Share, and (y) fractional Shares shall not be issued under the Plan (and shall instead also be rounded as aforesaid).

(b) If any Award or portion thereof under this Plan is for any reason forfeited, canceled, cash-settled, expired or otherwise terminated without the issuance of Shares, the Shares subject to such forfeited, canceled, cash-settled, expired or otherwise terminated Award, or portion thereof, shall again be available for grant under the Plan. If Shares are tendered or withheld from issuance with respect to an Award by the Company in satisfaction of any Exercise Price, Base Price or tax withholding or similar obligations, such tendered or withheld Shares shall again be available for grant under the Plan. Notwithstanding the foregoing, and except to the extent required by applicable law, Replacement Awards shall not be counted against Shares available for grant pursuant to this Plan.

Section 3.2 Limitation on Non-Employee Director Awards. The maximum number of Shares subject to Awards granted during a single Compensation Year to any non-employee Director, taken together with any cash fees paid during the Compensation Year to the non-employee Director, in respect of the Director's service as a member of the Board during such year (including service as a member or chair of any committees of the Board), shall not exceed (i) \$500,000 in total value; or (ii) in the event such non-employee Director is first appointed or elected to the Board during such Compensation Year, \$750,000 in total value, or (iii) in the event such non-employee Director is serving as non-employee Chairperson (or co-Chairperson) of the Board, \$750,000 in total value, in each case calculating the value of any equity awards based on the grant date fair value of such equity awards for financial reporting purposes.

Section 3.3 Changes in Company Common Stock; Disposition of Assets and Corporate Events

(a) If and to the extent necessary or appropriate to reflect any stock dividend, extraordinary dividend, stock split or share combination or any recapitalization, merger, consolidation, exchange of shares, spin-off, liquidation or dissolution of the Company or other similar transaction affecting the Company Common Stock (each, a "**Corporate Event**"), the Administrator shall adjust the number of shares of Company Common Stock available for issuance under the Plan, the ISO Limit, and the number, class and Exercise Price (if applicable) or Base Price (if applicable) of any outstanding Award, and/or make such substitution, revision or other provisions

or take such other actions with respect to any outstanding Award or the holder or holders thereof, in each case as it determines to be equitable. Without limiting the generality of the foregoing sentence, in the event of any such Corporate Event, the Administrator shall have the power to make such changes as it deems appropriate in (i) the number and type of shares or other securities covered by outstanding Awards, (ii) the prices specified therein (if applicable), (iii) the securities, cash or other property to be received upon the exercise, settlement or conversion of such outstanding Awards or otherwise to be received in connection with such outstanding Awards and (iv) any applicable Performance Goals. After any adjustment made by the Administrator pursuant to this Section 3.3, the number of shares subject to each outstanding Award shall be rounded down to the nearest whole number of whole or fractional shares (as determined by the Administrator), and (if applicable) the Exercise Price or Base Price thereof shall be rounded up to the nearest cent.

(b) Any adjustment of an Award pursuant to this Section 3.3 shall be effected in compliance with Section 424 and 409A of the Code to the extent applicable.

Section 3.4 Award Agreement Provisions. The Administrator may include such provisions and limitations in any Award Agreement as it shall determine, subject to the terms of the Plan.

Section 3.5 Prohibition Against Repricing. Except to the extent (i) approved in advance by the stockholders of the Company or (ii) pursuant to Section 3.3 as a result of any Corporate Event or pursuant to Article XI in connection with a Change in Control, the Administrator shall not have the power or authority to reduce, whether through amendment or otherwise, the Exercise Price of any outstanding Option or Base Price or any outstanding SAR or to grant any new Award, or make any cash payment, in substitution for or upon the cancellation of Options or SARs previously granted and as to which the Exercise Price or Base Price thereof is in excess of the then-current Fair Market Value of Share.

Section 3.6 Maximum Number of Incentive Stock Options. Notwithstanding the Share Limit, and subject to adjustment in accordance with Section 3.3 hereof, the maximum number of Shares that may be granted in connection with, and issued pursuant to the exercise of, Incentive Stock Options granted under this Plan is 2,400,000 shares (the "ISO Limit").

Article IV **OPTIONS AND SARs**

Section 4.1 Grant of Options and SARs. The Administrator is authorized to make Awards of Options and/or SARs to any Service Provider in such amounts and subject to such terms and conditions as determined by the Administrator, consistent with the Plan. SARs may be granted in tandem with Options or may be granted on a freestanding basis, not related to any Option. Excluding Replacement Awards, the per Share purchase price of the Shares subject to each Option (the "Exercise Price") and the Base Price of each SAR shall be not less than 100% of the Fair Market Value of a Share on the date such Option or SAR is granted. Each Option and each SAR shall be evidenced by an Award Agreement.

Section 4.2 Exercisability and Vesting; Exercise. Each Option and SAR shall vest and become exercisable according to the terms and conditions as determined by the Administrator. Except as otherwise determined by the Administrator, SARs granted in tandem with an Option shall become vested and exercisable on the same date or dates as the Options with which such SARs are associated vest and become exercisable. SARs that are granted in tandem with an Option may only be exercised upon the surrender of the right to exercise such Option for an equivalent number of Shares, and may be exercised only with respect to the Shares for which the related Option is then exercisable. The Administrator shall specify the manner of and any terms and conditions of exercise of an exercisable Option or SAR, including but not limited to net-settlement, delivery of previously owned stock and broker-assisted sales.

Section 4.3 Settlement of SARs. Upon exercise of a SAR, the Participant shall be entitled to receive payment in Shares, or such other form as determined by the Administrator, having an aggregate value equal to the Fair Market Value of one Share on the exercise date over (ii) the Base Price of such SAR; provided, however, that on the grant date, the Administrator may establish a maximum amount per Share that may be payable upon exercise of a SAR.

Section 4.4 Expiration of Options and SARs. No Option or SAR may be exercised after the expiration of ten (10) years from the date the Option or SAR was granted, unless a longer or shorter period is set forth in the Award Agreement. Notwithstanding the foregoing, in the event that on the last business day of the term of the Option or SAR (x) the exercise of the Option or SAR is prohibited by applicable law or (y) Shares may not be purchased or sold

by certain employees or directors of the Company due to the “black-out period” of a Company policy or a “lock-up” agreement undertaken in connection with an issuance of securities by the Company, the term of the Option or SAR shall be extended but not beyond a period of thirty (30) days following the end of the legal prohibition, black-out period or lock-up agreement (to the extent permissible under Section 409A of the Code) and provided further that no extension will be made if the applicable Exercise Price or Base Price at the date the initial term would otherwise expire is below the Fair Market Value on such date.

Article V

Restricted Stock Awards AND RESTRICTED STOCK UNIT AWARDS

Section 5.1 Restricted Stock. The Administrator is authorized to make Awards of Restricted Stock to any Service Provider selected by the Administrator in such amounts and subject to such terms and conditions as determined by the Administrator. All Awards of Restricted Stock shall be evidenced by an Award Agreement. Restricted Stock shall be subject to such restrictions on transferability and other restrictions as the Administrator may impose. These restrictions may lapse separately or in combination at such times, pursuant to such circumstances, in such installments, or otherwise, as the Administrator determines at the time of the grant of the Award or thereafter. The issuance of Restricted Stock granted pursuant to the Plan may be evidenced in such manner as the Administrator shall determine.

Section 5.2 Restricted Stock Units. The Administrator is authorized to make Awards of Restricted Stock Units to any Service Provider selected by the Administrator in such amounts and subject to such terms and conditions as determined by the Administrator. The Administrator may specify any conditions to vesting as it deems appropriate. For the avoidance of doubt, the Administrator may grant Restricted Stock Units that are fully vested and nonforfeitable when granted. At the time of grant, the Administrator shall specify the settlement date applicable to each grant of Restricted Stock Units. Unless otherwise provided in an Award Agreement, on the settlement date, the Company shall, subject to the terms of this Plan, transfer to the Participant one Share (or a cash amount equal to the then Fair Market Value of a Share) for each Restricted Stock Unit scheduled to be paid out on such date and not previously forfeited. A Participant shall not be, nor have any of the rights or privileges of, a stockholder in respect of Restricted Stock Units awarded pursuant to the Plan unless and until the Shares attributable to such Restricted Stock Units have been issued to such Participant. Notwithstanding the foregoing, unless otherwise determined by the Administrator, the Restricted Stock Units awarded pursuant to the Plan will receive Dividend Equivalents in accordance with Article VIII.

Article VI

Performance AWARDS

Section 6.1 Grant of Performance Awards. The Administrator is authorized to make Performance Awards to any Participant selected by the Administrator in such amounts and subject to such terms and conditions as determined by the Administrator. All Performance Shares and Performance Units shall be evidenced by an Award Agreement.

Section 6.2 Issuance and Restrictions. The Administrator shall have the authority to determine the Participants who shall receive Performance Awards; the number of Performance Shares, the number and value of Performance Units; the cash entitlement of any Participant with respect to any Performance Cycle; and the Performance Goals applicable in respect of such Performance Awards for each Performance Cycle. The Administrator shall determine the duration of each Performance Cycle (the duration of Performance Cycles may differ from one another), and there may be more than one Performance Cycle in existence at any one time. An Award Agreement evidencing the grant of Performance Shares or Performance Units shall specify the number of Performance Shares and the number and value of Performance Units awarded to the Participant, the Performance Goals applicable thereto, and such other terms and conditions as the Administrator shall determine. Unless the Administrator shall determine otherwise, no Company Common Stock will be issued at the time an Award of Performance Shares is made. The Company shall not be required to set aside a fund for the payment of Performance Awards.

Section 6.3 Earned Performance Awards. Performance Awards shall become earned, in whole or in part, based upon the attainment of specified Performance Goals or the occurrence of any event or events, as the Administrator shall determine or as set forth in an Award Agreement. In addition to the achievement of the specified Performance Goals, the Administrator may condition payment of Performance Awards on such other conditions as the Administrator shall determine. The Administrator may also provide in an Award Agreement for the completion of a minimum period of service (in addition to the achievement of any applicable Performance Goals) as a condition to the vesting of any Performance Award.

Section 6.4 Rights as a Stockholder. A Participant shall not have any rights as a stockholder in respect of Performance Awards (including, without limitation, the right to vote on any matter submitted to the Company's stockholders) until such time as the Shares attributable to such Performance Awards have been issued to such Participant or his or her beneficiary. Performance Shares as to which Shares are issued prior to the end of the Performance Cycle shall, during such period, be subject to such restrictions on transferability and other restrictions as the Administrator may impose. Notwithstanding the foregoing, unless otherwise determined by the Administrator, the Performance Awards awarded pursuant to the Plan will receive Dividend Equivalents settled in Shares in accordance with Article VIII.

Section 6.5 Performance Goals and Related Provisions. The Administrator shall establish the Performance Goals that must be satisfied in order for a Participant to receive an Award for a Performance Cycle or for a Performance Award to be earned or vested. The Administrator may provide for a threshold level of performance below which no amount of compensation will be paid and a maximum level of performance above which no additional amount of compensation will be paid under the Plan, and it may provide for the payment of differing amounts of compensation for different levels of performance. Performance Goals may be established on a Company-wide basis, with respect to one or more business units, divisions, Subsidiaries or products or based on individual performance measures, and may be expressed in absolute terms or relative to other metrics including internal targets or budgets, past performance of the Company, the performance of one or more similarly situated companies, performance of an index, outstanding equity or other external measures. In the case of earning-based measures, performance goals may include comparisons relating to capital (including but limited to, the cost of capital), stockholders' equity, shares outstanding, assets or net assets, or any combination thereof. Performance Goals may also be subject to such other terms and conditions as the Administrator may determine appropriate. The Administrator may also adjust the Performance Goals for any Performance Cycle as it deems equitable in recognition of unusual or non-recurring events affecting the Company; changes in applicable tax laws or accounting principles; other extraordinary events such as restructurings; discontinued operations; asset write-downs; significant litigation or claims, judgments or settlements; acquisitions or divestitures; reorganizations or changes in the corporate structure or capital structure of the Company; foreign exchange gains and losses; change in the fiscal year of the Company; business interruption events; unbudgeted capital expenditures; unrealized investment gains and losses; impairments and/or such other factors as the Administrator may determine.

Section 6.6 Determination of Attainment of Performance Goals. As soon as practicable following the end of a Performance Cycle and prior to any payment or vesting in respect of such Performance Cycle, the Administrator shall determine the number of Performance Shares or other Performance Awards and the number and value of Performance Units or the amount of any cash entitlement, in each case that has been earned or vested.

Section 6.7 Payment of Awards. Payment or delivery of Company Common Stock with respect to earned Performance Shares, earned Performance Units and earned cash entitlements shall be made to the Participant or, if the Participant has died, to the Participant's Eligible Representative, as soon as practicable after the expiration of the Performance Cycle and the Administrator's determination under Section 6.6 above and (unless an applicable Award Agreement shall set forth one or more other dates) in any event no later than the earlier of (i) ninety (90) days after the end of the fiscal year in which the Performance Cycle has ended and (ii) ninety (90) days after the expiration of the Performance Cycle. The Administrator shall determine and set forth in the applicable Award Agreement whether earned Performance Shares and the value of earned Performance Units are to be distributed in the form of cash, Shares or in a combination thereof, with the value or number of Shares payable to be determined based on the Fair Market Value of the Company Common Stock on the date of the Administrator's determination under Section 6.6 above or such other date specified in the Award Agreement. The Administrator may, in an Award Agreement with respect to the Award or delivery of Shares, condition the vesting of such Shares on the performance of additional service.

Section 6.8 Newly Eligible Participants. Notwithstanding anything in this Article VI to the contrary, the Administrator shall be entitled to make such rules, determinations and adjustments as it deems appropriate with respect to any Participant who becomes eligible to receive Performance Shares, Performance Units or other Performance Awards after the commencement of a Performance Cycle.

Article VII

OTHER Stock-Based Awards

Section 7.1 Grant of Stock-Based Awards. The Administrator is authorized to make Awards of other types of equity-based or equity-related awards and fully vested stock awards, including grants of fully vested Shares (collectively, "**Stock-Based Awards**") not otherwise described by the terms of the Plan in such amounts and subject

to such terms and conditions as the Administrator shall determine, including without limitation the payment of cash bonuses or other incentives in the form of Stock-Based Awards. Unless otherwise determined by the Administrator, all Stock-Based Awards shall be evidenced by an Award Agreement. Such Stock-Based Awards may be granted as an inducement to enter the employ of the Company, any Affiliate or any Subsidiary or in satisfaction of any obligation of the Company, any Affiliate or any Subsidiary to an officer or other key employee, whether pursuant to this Plan or otherwise, that would otherwise have been payable in cash or in respect of any other obligation of the Company. Such Stock-Based Awards may entail the transfer of actual Shares, or payment in cash or otherwise of amounts based on the value of Shares and may include, without limitation, Awards designed to comply with or take advantage of the applicable local laws of jurisdictions other than the United States.

Article VIII
Dividend Equivalents

Section 8.1 Generally. Dividend Equivalents may be granted to Participants at such time or times as shall be determined by the Administrator. Dividend Equivalents may be granted in tandem with other Awards, in addition to other Awards, or freestanding and unrelated to other Awards. Notwithstanding the terms of this Section 8.1, no Dividend Equivalents shall be granted with respect to Options or SARs. The grant date of any Dividend Equivalents will be the date on which the Dividend Equivalent is awarded by the Administrator, or such other date permitted by applicable laws as the Administrator shall determine. Dividend Equivalents may, at the discretion of the Administrator, be fully vested and nonforfeitable when granted or subject to such vesting conditions as determined by the Administrator; provided, that, unless the Administrator shall determine otherwise in an Award Agreement, Dividend Equivalents with respect to Awards shall not be fully vested until the Awards have been earned and shall be forfeited if the related Award is forfeited. Dividend Equivalents shall be evidenced in writing, whether as part of the Award Agreement governing the terms of the Award, if any, to which such Dividend Equivalent relates, or pursuant to a separate Award Agreement with respect to freestanding Dividend Equivalents, in each case, containing such provisions not inconsistent with the Plan as the Administrator shall determine, including customary representations, warranties and covenants with respect to securities law matters.

Article IX
Termination and Forfeiture

Section 9.1 Termination for Cause; Post-Service Competitive Activity. Unless otherwise set forth in the Award Agreement, if a Participant's employment or service terminates for Cause or a Participant engages in Competitive Activity following the Participant's termination of employment or service, all Options and SARs, whether vested or unvested, and all other Awards that are unvested or unexercisable or otherwise unpaid (or were unvested or unexercisable or unpaid at the time of occurrence of Cause or engagement in Competitive Activity) shall be immediately forfeited and canceled, effective as of the date of the termination or engagement in Competitive Activity. If the Participant engages in Competitive Activity following the termination, any portion of the Participant's Awards that became vested after termination, and any Shares or cash issued upon exercise or settlement of such Awards, shall be immediately forfeited, canceled, and disgorged or paid to the Company together with all gains earned or accrued due to the sale of Shares issued upon exercise or settlement of such Awards.

Section 9.2 Termination due to Death. Unless otherwise set forth in the Award Agreement, if a Participant's employment or service terminates by reason of death:

(a) All Options and SARs (whether or not then otherwise exercisable) shall become exercisable in full and the Participant's Eligible Representative may exercise all such Options and SARs at any time prior to the earlier of (i) the one-year anniversary of the Participant's death or (ii) the expiration of the term of the Options or SARs; provided that any in-the-money Options and SARs that are still outstanding on the last day of the time period specified in this Section 9.2(a) shall automatically be exercised on such date; and

(b) All other Awards shall immediately vest in full upon the Participant's death, and Restricted Stock Units and Performance Awards that have not been settled or converted into Shares prior to the Participant's death shall immediately be settled in Shares. Any Performance Awards that vest as a result of this Section 9.2(b) shall vest and be paid based on target levels of performance.

Section 9.3 Termination due to Disability. Unless otherwise set forth in the Award Agreement, if a Participant's employment or service terminates by reason of Disability, the Participant shall be treated for purposes of the treatment of the Participant's Awards under this Section 9.3 as though the Participant continued in the employ or service of the

Company and all unvested Awards shall remain outstanding and vest, or in the case of Options and SARs, vest and become exercisable, in accordance with the terms set forth in the applicable Award Agreement. Any Options or SARs granted to such Participant that are exercisable at the date of termination by reason of Disability or that thereafter become exercisable by reason of the operation of the immediately preceding sentence may be exercised at any time prior to the earlier of (i) the fifth anniversary of the Participant's termination for Disability or (ii) the expiration of the term of such Options or SARs.

Section 9.4 Involuntary Termination Without Cause. Unless otherwise set forth in the Award Agreement, if a Participant's employment or service is involuntarily terminated without Cause:

(a) All Options and SARs that are unvested shall be immediately forfeited and canceled, effective as of the date of the termination, and all Options and SARs that are vested shall remain outstanding and exercisable until the earlier of (i) 30 days after the effective date of the termination under this Section 9.4 or (ii) the expiration of the term of such Options or SARs; and

(b) All Awards of Restricted Stock or Restricted Stock Units that are unvested shall be immediately forfeited and canceled, effective as of the date of the termination; and

(c) Provided that the Participant signs a general release and waiver of claims in the form provided by the Administrator and does not exercise any rights to revoke such release, the Participant shall retain a portion of any unvested Performance Awards granted earlier than one year prior to the termination under this Section 9.4 equal to, for each grant of Performance Awards, the number of Performance Shares or Performance Units specified in the Award Agreement multiplied by the quotient of (i) the number of full months elapsed between the grant date in respect of such Performance Awards and the effective date of the termination under this Section 9.4 over (ii) the total number of months in the Performance Cycle. Such retained Performance Awards will remain outstanding and vest subject to the attainment of the applicable Performance Goals in respect thereof. Any Performance Awards that do not vest pursuant to this Section 9.4(c) shall be immediately forfeited and canceled, effective as of the date of the termination.

Section 9.5 Termination for Any Other Reason. Unless otherwise set forth in the Award Agreement, if a Participant's employment or service terminates for any reason other as set forth in Sections 9.1 (other than post-service Competitive Activity) through 9.4:

(a) All Options and SARs that are unvested shall be immediately forfeited and canceled, effective as of the date of the termination, and all Options and SARs that are vested shall remain outstanding and exercisable until the earlier of (i) 30 days after the effective date of the termination under this Section 9.5 or (ii) the expiration of the term of such Options or SARs; and

(b) All other Awards that are unvested or have not otherwise been earned shall be immediately forfeited and canceled, effective as of the date of termination.

Section 9.6 Post-Termination Informational Requirements. Before the settlement of any Award following termination of employment or service, the Administrator may require the Participant (or the Participant's Eligible Representative, if applicable) to make such representations and provide such documents as the Administrator deems necessary or advisable to effect compliance with applicable law and the provisions of this Plan.

Section 9.7 Forfeiture and Recoupment of Awards. Awards granted under this Plan (and gains earned or accrued in connection with Awards) shall be subject to such generally applicable policies as to forfeiture and recoupment (including, without limitation, upon the occurrence of material financial or accounting errors, financial or other misconduct or Competitive Activity) as may be adopted by the Administrator or the Board from time to time. Any such policies may (in the discretion of the Administrator or the Board) be applied to outstanding Awards at the time of adoption of such policies, or on a prospective basis only. Participants shall also forfeit and disgorge to the Company any Awards granted or vested and any gains earned or accrued due to the exercise of Options or SARs or the sale of any Company Common Stock to the extent required by applicable law or as required by any stock exchange or quotation system on which the Company Common Stock is listed or quoted, in each case in effect on or after the Effective Date, including but not limited to Section 304 of the Sarbanes-Oxley Act of 2002 and Section 10D of the Exchange Act. The implementation of policies and procedures pursuant to this Section 9.7 and any modification of the same shall not be subject to any restrictions on amendment or modification of Awards.

Section 9.8 Clawbacks. Awards shall be subject to any generally applicable clawback policy adopted by the Administrator, the Board or the Company that is communicated to the Participants or any such policy adopted to comply with applicable law.

Article X
CHANGE IN CONTROL

Section 10.1 Alternative Award. Unless otherwise provided in an Award Agreement, and other than with respect to the Performance Award Conversion, no cancellation, acceleration or other payment shall occur in connection with a Change in Control pursuant to Section 10.3 with respect to any Award or portion thereof as a result of the Change in Control if the Administrator reasonably determines in good faith, prior to the occurrence of the Change in Control, that such Award shall be honored or assumed, or new rights substituted therefor following the Change in Control (such honored, assumed or substituted award, an “**Alternative Award**”), provided that any Alternative Award must (i) give the Participant who held the Award rights and entitlements substantially equivalent to or better than the rights and terms applicable under the Award immediately prior to the Change in Control, including an equal or better vesting schedule and that Alternative Awards that are stock options have identical or better methods of payment of the exercise price thereof and a post-termination exercise period extending until at least the fifth anniversary of the Participant’s termination (or, if earlier, the expiration of the term of such stock options); (ii) have terms such that if a Participant’s employment is involuntarily (*i.e.*, by the Company or its successor other than for Cause) or constructively (*i.e.*, by the Participant with Good Reason) terminated within the twenty-four (24) months following a Change in Control at a time when any portion of the Alternative Award is unvested, the unvested portion of such Alternative Award shall immediately vest in full and such Participant shall receive (as determined by the Board prior to the Change in Control) either (1) a cash payment equal in value to the excess (if any) of the fair market value of the stock subject to the Alternative Award at the date of exercise or settlement over the price (if any) that such Participant would be required to pay to exercise such Alternative Award or (2) publicly-traded shares or equity interests equal in value (as determined by the Administrator) to the value in clause (1).

Section 10.2 Performance Award Conversion. Unless otherwise provided in an Award Agreement, upon a Change in Control, then-outstanding Performance Awards shall be modified to remove any Performance Goals applicable thereto and to substitute, in lieu of such Performance Goals, vesting solely based on the requirement of continued service through, as nearly as is practicable, the date(s) on which the satisfaction of the Performance Goals would have been measured if the Change in Control had not occurred (or, if applicable, the later period of required service following such measurement date) (such Awards, the “**Alternative Performance Awards**”), with such service-vesting of the Alternative Performance Awards to accelerate upon the termination of service of the holder prior to such vesting date(s) thereof, if such termination of service satisfies the requirements of clause (ii) of Section 10.1 hereof. The number of Alternative Performance Awards shall be equal to (i) if less than 50% of the Performance Cycle has elapsed, the target number of Performance Awards, and (ii) if 50% or more of the Performance Cycle has elapsed, a number of Performance Awards based on actual performance through the date of the Change in Control if determinable, or the target, if not determinable (with the Administrator as constituted prior to the Change in Control making any determinations necessary to determine performance and the vesting date(s) thereof). The conversion of the Performance Awards into Alternative Performance Awards is referred to herein as the “**Performance Award Conversion**”. Following the Performance Award Conversion, the Alternative Performance Awards shall either remain outstanding as Alternative Awards consistent with this Section 10.2 or shall be treated as provided in Section 10.3.

Section 10.3 Accelerated Vesting and Payment. Except as otherwise provided in this Article X or in an Award Agreement, upon a Change in Control:

- (a) each vested and unvested Option or SAR shall be canceled in exchange for a payment equal to the excess, if any, of the Change in Control Price over the applicable Exercise Price or Base Price;
- (b) the vesting restrictions applicable to all other unvested Awards (other than (x) freestanding Dividend Equivalents not granted in connection with another Award and (y) Performance Awards) shall lapse, all such Awards shall vest and become non-forfeitable and be canceled in exchange for a payment equal to the Change in Control Price;
- (c) the Alternative Performance Awards shall be canceled in exchange for a payment equal to the Change in Control Price;

(d) all other Awards (other than freestanding Dividend Equivalents not granted in connection with another Award) that were vested prior to the Change in Control but that have not been settled or converted into Shares prior to the Change in Control shall be canceled in exchange for a payment equal to the Change in Control Price; and

(e) all freestanding Dividend Equivalents not granted in connection with another Award shall be cancelled without payment therefor.

To the extent any portion of the Change in Control Price is payable other than in cash and/or other than at the time of the Change in Control, Award holders under the Plan shall receive the same value in respect of their Awards (less any applicable Exercise Price, Base Price or similar feature) as is received by the Company's stockholders in respect of their Company Common Stock (as determined by the Administrator), and the Administrator shall determine the extent to which such value shall be paid in cash, in securities or other property, or in a combination of cash and securities or other property, consistent with applicable law. To the extent any portion of the Change in Control Price is payable other than at the time of the Change in Control, the Administrator shall determine the time and form of payment to the Award holders consistent with Section 409A of the Code and other applicable laws. Upon a Change in Control the Administrator may cancel Options and SARs for no consideration if the Fair Market Value of the Shares subject to such Options or such SARs is less than or equal to the Exercise Price of such Options or the Base Price of such SARs.

Article XI OTHER PROVISIONS

Section 11.1 Awards Not Transferable. Except as otherwise determined by the Administrator, no Award or interest or right therein or part thereof shall be liable for the debts, contracts or engagements of the Participant or his or her successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law, by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy), and any attempted disposition thereof shall be null and void and of no effect; provided, however, that nothing in this Section 11.1 shall prevent transfers by will, by the applicable laws of descent and distribution or pursuant to the beneficiary designation procedures approved by the Company pursuant to Section 11.13 or, with the prior approval of the Company, estate planning transfers.

Section 11.2 Amendment, Suspension or Termination of the Plan or Award Agreements

(a) The Plan may be wholly or partially amended or otherwise modified, suspended or terminated at any time or from time to time by the Administrator; provided, that without the approval of the stockholders of the Company, no amendment or modification to the Plan may (i) except as otherwise expressly provided in Section 3.3, increase the number of Shares subject to the Plan; (ii) modify the class of persons eligible for participation in the Plan or (iii) materially modify the Plan in any other way that would require stockholder approval under applicable law. Except as otherwise expressly provided in the Plan, neither the amendment, suspension or termination of the Plan shall, without the written consent of the holder of the Award, materially adversely alter or impair any rights or obligations under any Award theretofore granted.

(b) The Administrator at any time, and from time to time, may amend the terms of any one or more existing Award Agreements, provided, however, that the rights of a Participant under an Award Agreement shall not be materially adversely impaired without the Participant's written consent. The Company shall provide a Participant with notice of any amendment made to a Participant's existing Award Agreement.

(c) No Award may be granted during any period of suspension nor after termination of the Plan, and in no event may any Award be granted under this Plan after the expiration of ten (10) years from the Effective Date.

Section 11.3 Effect of Plan upon Other Award and Compensation Plans. The adoption of this Plan shall not affect any other compensation or incentive plans in effect for the Company or any of its Affiliates. Nothing in this Plan shall be construed to limit the right of the Company or any of its Affiliates (a) to establish any other forms of incentives or compensation for Service Providers or (b) to grant or assume options or restricted stock other than under this Plan in connection with any proper corporate purpose, including, but not by way of limitation, the grant or assumption of options or restricted stock in connection with the acquisition by purchase, lease, merger, consolidation or otherwise, of the business, stock or assets of any corporation, firm or association.

Section 11.4 At-Will Employment. Nothing in the Plan or any Award Agreement hereunder shall confer upon the Participant any right to continue as a Service Provider of the Company or any of its Affiliates or shall interfere with or restrict in any way the rights of the Company or any of its Affiliates, which are hereby expressly reserved, to discharge any Participant at any time for any reason whatsoever, with or without Cause.

Section 11.5 Conformity to Securities Laws. The Plan is intended to conform to the extent necessary with all provisions of the Securities Act and the Exchange Act and any and all regulations and rules promulgated under any of the foregoing, to the extent the Company, any of its Affiliates or any Participant is subject to the provisions thereof. Notwithstanding anything herein to the contrary, the Plan shall be administered, and Awards shall be granted and may be exercised, only in such a manner as to conform to such laws, rules and regulations. To the extent permitted by applicable law, the Plan and Awards granted hereunder shall be deemed amended to the extent necessary to conform to such laws, rules and regulations.

Section 11.6 Term of Plan. The Plan was approved by the Board of Directors of the Company on April 26, 2022 (the "Adoption Date"), subject to stockholder approval. The Plan shall be effective on the date of its approval by the stockholders of the Company at the 2022 annual meeting of stockholders (the "Effective Date") in accordance with applicable law. No awards shall be issued or granted under this Plan until or unless this Plan is approved by stockholders. The Plan shall continue in effect, unless sooner terminated pursuant to Section 11.2, until the tenth (10th) anniversary of the Adoption Date. The provisions of the Plan shall continue thereafter to govern all outstanding Awards.

Section 11.7 Governing Law. To the extent not preempted by federal law, the Plan shall be construed in accordance with and governed by the laws of the State of Delaware regardless of the application of rules of conflict of law that would apply the laws of any other jurisdiction.

Section 11.8 Severability. In the event any portion of the Plan or any action taken pursuant thereto shall be held illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provisions had not been included, and the illegal or invalid action shall be null and void.

Section 11.9 Governing Documents. In the event of any express contradiction between the Plan and any Award Agreement or any other written agreement between a Participant and the Company or any Affiliate that has been approved by the Administrator, the express terms of the Plan shall govern, unless it is expressly specified in such Award Agreement or other written document that such express provision of the Plan shall not apply.

Section 11.10 Withholding Taxes. In addition to any rights or obligations with respect to the federal, state, local or foreign income taxes, withholding taxes or employment taxes required to be withheld under applicable law, the Company or any Affiliate employing a Service Provider shall have the right to withhold from the Service Provider, or otherwise require the Service Provider or an assignee to pay, any such required withholding obligations arising as a result of grant, exercise, vesting or settlement of any Award or any other taxable event occurring pursuant to the Plan or any Award Agreement, including, without limitation, to the extent permitted by law, the right to deduct any such withholding obligations from any payment of any kind otherwise due to the Service Provider or to take such other actions (including, without limitation, withholding any Shares or cash deliverable pursuant to the Plan or any Award) as may be necessary to satisfy such withholding obligations.

Section 11.11 Section 409A. To the extent applicable, the Plan and Award Agreements shall be interpreted in accordance with Section 409A of the Code and Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the adoption of the Plan. Notwithstanding any provision of the Plan to the contrary, in the event that following the adoption of the Plan, the Administrator determines that any Award may be subject to Section 409A of the Code and related regulations and Department of Treasury guidance (including such Department of Treasury guidance as may be issued after the adoption of the Plan), the Administrator may adopt such amendments to the Plan and the applicable Award Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Administrator determines are necessary or appropriate to (a) exempt the Award from Section 409A of the Code and/or preserve the intended tax treatment of the benefits provided with respect to the Award, (b) comply with the requirements of Section 409A of the Code and related Department of Treasury guidance or (c) comply with any correction procedures available with respect to Section 409A of the Code. Notwithstanding anything else contained in this Plan or any Award Agreement to the contrary, if a Service

Provider is a "specified employee" at the time of the Service Provider's "separation from service" (as determined under Section 409A of the Code) then, to the extent necessary to comply with, and avoid imposition on such Service Provider of any tax penalty imposed under, Section 409A of the Code, any payment required to be made to a Service Provider hereunder upon or following his or her separation from service shall be delayed until the first to occur of (i) the six-month anniversary of the Service Provider's separation from service and (ii) the Service Provider's death. Should payments be delayed in accordance with the preceding sentence, the accumulated payment that would have been made but for the period of the delay shall be paid in a single lump sum during the ten (10) day period following the lapsing of the delay period. No provision of this Plan or an Award Agreement shall be construed to indemnify any Service Provider for any taxes incurred by reason of Section 409A (or timing of incurrence thereof), other than an express indemnification provision therefor.

Section 11.12 Notices. Except as provided otherwise in an Award Agreement, all notices and other communications required or permitted to be given under this Plan or any Award Agreement shall be in writing and shall be deemed to have been given if delivered personally, sent by email or any other form of electronic transfer approved by the Administrator, sent by certified or express mail, return receipt requested, postage prepaid, or by any recognized international equivalent of such delivery, (i) in the case of notices and communications to the Company, to its current business address and to the attention of the Corporate Secretary of the Company or (ii) in the case of a Participant, to the last known address, or email address or, where the individual is an employee of the Company or one of its Subsidiaries, to the individual's workplace address or email address or by other means of electronic transfer acceptable to the Administrator. All such notices and communications shall be deemed to have been received on the date of delivery, if sent by email or any other form of electronic transfer, at the time of dispatch or on the third business day after the mailing thereof.

Section 11.13 Beneficiary Designation. Each Participant under the Plan may from time to time pursuant to procedures approved by the Company name any beneficiary or beneficiaries by whom any right under the Plan is to be exercised in case of such Participant's death.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the inclusion in this Post-Effective Amendment No.1 to Registration Statement of 180 Life Sciences Corp. on Form S-1 (File No. 333-259209) of our report dated March 30, 2022, which includes an explanatory paragraph as to the Company's ability to continue as a going concern, with respect to our audits of the consolidated financial statements of 180 Life Sciences Corp. as of December 31, 2021 and 2020 and for each of the two years in the period ended December 31, 2021, which report appears in the Prospectus, which is part of this Registration Statement. We also consent to the reference to our Firm under the heading "Experts" in such Prospectus.

/s/ Marcum llp

Marcum llp
San Francisco, CA
May 6, 2022

Calculation of Filing Fee Tables
Form S-1
(Form Type)
180 Life Sciences Corp.
(Exact Name of Registrant as Specified in its Charter)
Table 3: Combined Prospectuses

Security Type	Security Class Title	Amount of Securities Previously Registered ⁽¹⁾	Maximum Aggregate Offering Price of Securities Previously Registered	Form Type	File Number	Initial Effective Date
Equity	Common stock, par value \$0.0001 ⁽²⁾	4,627,500	\$50,439,750 ⁽¹⁶⁾	S-1	333-249539	November 2, 2020
Equity	Common stock, par value \$0.0001, underlying rights ⁽³⁾	50,250	\$547,725 ⁽¹⁶⁾	S-1	333-249539	November 2, 2020
Equity	Common stock, par value \$0.0001, underlying Series A Convertible Preferred Stock ⁽⁴⁾	1,388,890	\$3,666,667	S-1	333-249539	November 2, 2020
Equity	Common stock, par value \$0.001, underlying secured convertible promissory notes ⁽⁵⁾	2,592,195	\$5,184,390	S-1	333-249539	November 2, 2020
Equity	Common stock, par value \$0.0001, underlying unsecured convertible promissory note ⁽⁶⁾	198,751	\$795,003	S-1	333-249539	November 2, 2020
Equity	Common stock, par value \$0.001, underlying warrants ⁽⁷⁾	251,250	\$2,889,375	S-1	333-249539	November 2, 2020
Equity	Common stock, par value \$0.0001 ⁽⁸⁾	2,714,000	\$24,670,260 ⁽¹⁷⁾	S-1	333-258045	July 27, 2021
Equity	Common stock, par value \$0.0001, underlying the February PIPE Warrants ⁽⁹⁾	2,564,000	\$12,820,000.00	S-1	333-258045	July 27, 2021
Equity	Common stock, par value \$0.0001, underlying the Bridge Notes ⁽¹⁰⁾	158,383	\$1,439,702 ⁽¹⁷⁾	S-1	333-258045	July 27, 2021
Equity	Common stock, par value \$0.0001, underlying the Public Warrants ⁽¹¹⁾	6,001,250	\$69,014,375	S-1	333-258045	July 27, 2021
Equity	Common stock, par value \$0.0001 ⁽¹²⁾	2,875,000	\$15,180,000 ⁽¹⁸⁾	S-1	333-259209	September 9, 2021
Equity	Common stock, par value \$0.0001, underlying the August PIPE Warrants ⁽¹³⁾	2,500,000	\$18,750,000	S-1	333-259209	September 9, 2021
Equity	Common stock, par value \$0.0001, underlying the AGP Warrants ⁽¹⁴⁾	63,658	\$336,115	S-1	333-259209	September 9, 2021
Equity	Common stock, par value \$0.0001, underlying the Alpha Settlement Warrants ⁽¹⁵⁾	25,000	\$176,750	S-1	333-259209	September 9, 2021

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended, this registration statement also covers such additional securities as may hereafter be offered or issued to prevent dilution resulting from stock splits, stock dividends, recapitalizations or similar transactions.
- (2) Represents the resale of shares of common stock issued in certain private transactions described in the October Registration Statement (as defined in the accompanying prospectus).
- (3) Represents the resale of shares of common stock issued upon the conversion of certain rights that were issued to the registrant's sponsor and the underwriters of its initial public offering in a private placement.
- (4) Represents the resale of shares of common stock issued upon the conversion of \$3,666,667 of shares of the registrant's Series A Convertible Preferred Stock issued in a private placement described in the October Registration Statement based on a conversion price (after giving effect to certain potential anti-dilution adjustments) of \$2.64 per share.
- (5) Represents the resale of shares of common stock issued upon the conversion of certain secured convertible 10% original issue discount promissory notes in the aggregate principal amount of \$4,713,077.39 (after giving effect to the 10% original issue discount) that were issued to investors in certain private transactions described in the October Registration Statement, plus interest thereon at the rate of 10% per annum for one year, based on a floor conversion price (after giving effect to certain potential anti-dilution adjustments) of \$2.00 per share.
- (6) Represents the resale of shares of common stock issued to the Sponsor upon the conversion, at a conversion price of \$4.00 per share, of a convertible promissory note in the principal amount of \$795,003, that was issued to the Sponsor in a private transaction.
- (7) Represents the resale of shares of common stock issuable upon the exercise, at an exercise price of \$11.50 per share, of the Private Placement Warrants (as defined in the accompanying prospectus).
- (8) Represents the resale of shares of common stock issued in certain private transactions described in the July Registration Statement (as defined in the accompanying prospectus).
- (9) Represents the resale of shares of common stock issuable upon the exercise, at an exercise price of \$5.00 per share, of the February PIPE Warrants (as defined in the accompanying prospectus).
- (10) Represents the resale of shares of common stock that were issued to the holders of the Bridge Notes (as defined in the accompanying prospectus) upon conversion of the Bridge Notes.
- (11) Represents 6,001,250 shares of common stock issuable upon the exercise of the Public Warrants (as defined in the accompanying prospectus).
- (12) Represents the resale of shares of common stock issued in certain private transactions described in the August Registration Statement (as defined in the accompanying prospectus).
- (13) Represents the resale of shares of common stock issuable upon the exercise, at an exercise price of \$7.50 per share, of the August PIPE Warrants (as defined in the accompanying prospectus).
- (14) Represents the resale of shares of common stock issuable upon the exercise, at an exercise price of \$5.28 per share, of the AGP Warrants (as defined in the accompanying prospectus).
- (15) Represents the resale of shares of common stock issuable upon the exercise, at an exercise price of \$7.07 per share, of the Alpha Settlement Warrants (as defined in the accompanying prospectus).
- (16) Estimated solely for the purpose of computing the amount of the registration fee and is based on the average high and low sales prices of our common stock of \$10.90 per share as of October 14, 2020, as reported on The NASDAQ Capital Market, pursuant to Rule 457(c) under the Securities Act of 1933, as amended.
- (17) Estimated solely for the purpose of computing the amount of the registration fee and is based on the average high and low sales prices of our common stock of \$9.09 per share as of July 16, 2021, as reported on The NASDAQ Capital Market, pursuant to Rule 457(c) under the Securities Act of 1933, as amended.
- (18) Estimated solely for the purpose of computing the amount of the registration fee and is based on the average high and low sales prices of our common stock of \$5.28 per share as of August 27, 2021, as reported on The NASDAQ Capital Market, pursuant to Rule 457(c) under the Securities Act of 1933, as amended.