As filed with the Securities and Exchange Commission on September 1, 2023

Registration No. 333-269188

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

Amendment No. 5 to
FORM S-1
REGISTRATION STATEMENT
under
The Securities Act of 1933

CHROMOCELL THERAPEUTICS CORPORATION
(Exact name of registrant as specified in its charter)

Delaware	2836	86-3335449
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

4400 Route 9 South, Suite 1000
Freehold, NJ 07728
732-514-2636
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Francis Knuettel II
Interim Chief Executive Officer and
Chief Financial Officer, Treasurer and Secretary
4400 Route 9 South, Suite 1000
Freehold, NJ 07728
Tel. No.: 732-514-2636
(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 this registration statement becomes effective.

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 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, 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	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Exchange Act. ☐

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 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

This registration statement contains disclosure that will be circulated as two separate final prospectuses: (i) a prospectus (the "IPO Prospectus") to be used in connection with the initial public offering by Chromocell Therapeutics Corporation (the "Company") of shares (the "IPO Shares") of common stock, par value $0.0001 per share (the "Common Stock"), of the Company, being registered for sale by the Company (the "IPO") through the underwriters named on the cover page of the IPO Prospectus, and (ii) a prospectus (the "Resale Prospectus") to be used in connection with the offer and potential resale by selling stockholders identified in this registration statement (the "Selling Stockholders") of up to shares of Common Stock (the "Stockholder Shares"). The disclosure to be included in the IPO Prospectus and the Resale Prospectus is contained in the prospectus included in this registration statement, as amended to date, of which each of the IPO Prospectus and Resale Prospectus will form a part. The IPO Prospectus and the Resale Prospectus will be substantively identical in all respects except for the following principal points:

- they will contain different outside and inside front cover pages; among other things, the identification of the underwriters and related compensation for IPO Shares will only be included in the IPO Prospectus and the Stockholder Shares will be listed on the outside and inside front covers of the Resale Prospectus without identification of the underwriters and related compensation information;

- they will contain different offering summary subsections in the Prospectus Summary section relating to the offering of the IPO Shares and the Stockholder Shares, as applicable; such offering summary subsection included in the IPO Prospectus will summarize the offering of the IPO Shares and such offering summary subsection included in the Resale Prospectus will summarize the offering of the Stockholder Shares;

- they will contain different Use of Proceeds disclosure, with the Use of Proceeds section included in the Resale Prospectus only indicating that the Company will not receive any proceeds from the sale of the Stockholder Shares by the Selling Stockholders that occur pursuant to the registration statement of which the Resale Prospectus forms a part;

- the Capitalization and Dilution sections will not be included in the Resale Prospectus;

- the Selling Stockholder and Plan of Distribution sections will be included only in the Resale Prospectus;

- the Underwriting section from the IPO Prospectus will not be included in the Resale Prospectus; and

- the Legal Matters section in the Resale Prospectus will not include a reference to counsel for the underwriters.

The Company has included in this registration statement, after the IPO Prospectus cover page, a set of alternate front and back cover pages to reflect the differences between the cover pages of the Resale Prospectus as compared to the cover pages of the IPO Prospectus.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS

SUBJECT TO COMPLETION, DATED SEPTEMBER 1, 2023

CHROMOCELL THERAPEUTICS CORPORATION

SHARES OF COMMON STOCK

SHARES OF COMMON STOCK UNDERLYING THE REPRESENTATIVE'S WARRANTS
SHARES OF COMMON STOCK UNDERLYING THE ADVISOR WARRANTS

This is the initial public offering by Chromocell Therapeutics Corporation ("Chromocell", the "Company", "we", "us" or "our"). We are registering on the registration statement of which this prospectus forms a part a total of shares of our common stock, par value $0.0001 per share ("Common Stock"), consisting of: (i) shares (the "IPO Shares") of Common Stock for sale by the Company (the "IPO") through the underwriters named on the cover page of this prospectus (the "IPO Prospectus") and (ii) shares (the "Stockholder Shares") of Common Stock on behalf of certain selling stockholders (the "Selling Stockholders") identified in a separate prospectus (the "Resale Prospectus"), which Stockholder Shares may be resold by such Selling Stockholders from time to time. In addition, we are also registering shares of Common Stock underlying the Representative's Warrants and Advisor Warrants (discussed below).

The offering of the IPO Shares is being made on a firm commitment basis with an assumed initial public offering price of $ per share. We anticipate that the initial public offering price of the IPO Shares offered hereby will be between $ and $ per share, assuming a 1-for- reverse stock split (the "Reverse Stock Split") of our outstanding shares of Common Stock. The number of shares of Common Stock offered pursuant to this prospectus and all other applicable information, other than in the historical financial statements and related notes included elsewhere in this prospectus, or as otherwise noted, has been determined based on such assumed initial public offering price, which is the midpoint of such range. The actual initial public offering price of the IPO Shares offered hereby will be determined between the underwriters and us at the time of pricing, considering our historical performance and capital structure, prevailing market conditions, and overall assessment of our business. Therefore, the assumed initial public offering price per share of the IPO Shares used throughout this prospectus may not be indicative of the actual initial public offering price for the IPO Shares.

The offering of the IPO Shares includes an aggregate of (i) $ in shares at the public offering price per IPO Share directly to a lender holding a promissory note in the aggregate principal amount of $450,000 and accrued interest of $ as of the date of this prospectus (the "Investor Note") (shares, assuming an initial public offering price of $ per IPO Share, the midpoint of the price range set forth above) and (ii) $175,000 in shares at the public offering price per IPO Share directly to one of our directors holding a promissory note in the aggregate principal amount of $175,000 (the "Director Note") (shares, assuming an initial public offering price of $ per IPO Share, the midpoint of the price range set forth above). Such shares are being offered in the IPO as repayment of the Investor Note and Director Note in full satisfaction of our obligations thereunder and, accordingly, the amount of net proceeds we receive in the IPO will not increase as a result. The director is not obligated to accept shares in the IPO in full (or partial) satisfaction of our obligations under the Director Note. Accordingly, we may be required to use a portion of the net proceeds received in the IPO to repay the amounts outstanding under the Director Note, in lieu of issuing IPO Shares to the director.

We intend to apply for the listing of our Common Stock on the NYSE American LLC ("NYSE American") under the symbol "CHRO." No assurance can be given that our listing application will be approved or that a trading market will develop. This offering is contingent upon final approval of our NYSE American listing application. If our listing application is not approved by NYSE American, we will not be able to consummate the offering of IPO Shares.

As noted above, the registration statement of which this prospectus forms a part also registers on behalf of certain Selling Stockholders an aggregate of Stockholder Shares to be resold from time to time. The offering of Stockholder Shares by the Selling Stockholders is conditioned on the closing of the IPO. The Stockholder Shares may be sold at prevailing market prices, prices related to prevailing market prices or at privately negotiated prices. We will not receive any proceeds from the sale of any of the Stockholder Shares sold by the Selling Stockholders. The offering of the Stockholder Shares by the Selling Stockholders will terminate at the earlier of such time as all of the Stockholder Shares have been sold pursuant to this registration statement and the date on which it is no longer necessary to maintain the registration of the Stockholder Shares as a result of such shares being permitted to be offered and resold without restriction pursuant to the provisions of Rule 144 of the Securities Act of 1933, as amended (the "Securities Act").

We are an emerging growth company as that term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings. See "Prospectus Summary — Implications of Being an Emerging Growth Company and a Smaller Reporting Company."

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" beginning on page 9 of this prospectus and under similar headings in any amendments or supplements to this prospectus. 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.

	Per IPO Share	*Total*[1]
Initial public offering price	$	$
Underwriting discounts and commissions[2]	$	$
Proceeds, before expenses, to us	$	$

(1) Assumes no exercise of the over-allotment option by the underwriters.
(2) See "Underwriting" for a description of the compensation payable to the underwriters. The underwriters will not receive additional compensation for the sale of IPO Shares in full satisfaction of the Investor Note and Director Note.

We have granted the underwriters an option to purchase from us up to an additional shares of our Common Stock within 45 days from the date of the IPO Prospectus solely to cover over-allotments, if any, at the initial public offering price for the IPO Shares less the underwriting discount.

We have agreed to issue to Maxim Group LLC, as representative of the underwriters or its designees, at the closing of the IPO, warrants to purchase the number of shares of Common Stock equal to five percent (5%) of the IPO Shares (the "Representative's Warrants"). The Representative's Warrants will be exercisable beginning six months from the effective date of the registration statement of which this prospectus forms a part and will expire five years after such date. The exercise price of the Representative's Warrants will equal 100% of the public offering price per IPO Share. See "Underwriting." The IPO Prospectus also relates to the Common Stock issuable upon exercise of the Representative's Warrants.

We have also agreed to issue to A.G.P./Alliance Global Partners ("A.G.P."), as a financial advisor in connection with the IPO, warrants to purchase the number of shares of Common Stock equal to two percent (2%) of the IPO Shares, with terms and conditions identical to the Representative's Warrants (the "Advisor Warrants"). The IPO Prospectus also relates to the Common Stock issuable upon exercise of the Advisor Warrants.

The underwriters expect to deliver the IPO Shares to purchasers in New York, New York on , 2023.

Lead Managing Underwriter

Maxim Group LLC

The date of this prospectus is , 2023

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ABOUT THIS PROSPECTUS

Neither we, the Selling Stockholders nor the underwriters have authorized anyone to provide you with information or make any representations other than those contained in this prospectus or in any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We, the Selling Stockholders and the underwriters take no responsibility for, and provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the securities offered hereby, and only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information appearing in this prospectus is accurate as of the date on the front cover of this prospectus only. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States: we, the Selling Stockholders and the underwriters have not done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside the United States.

Solely for convenience, our trademarks and tradenames referred to in this prospectus and the registration statement of which it forms a part may appear without the ® or ™ symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights to these trademarks and tradenames.

Information contained in, and that can be accessed through our website, www.chromocell.com, does not constitute part of this prospectus or the registration statement of which it forms a part.

INDUSTRY AND MARKET DATA

We obtained the industry, statistical and market data in this prospectus from our own internal estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. In presenting this information, we have made assumptions based on such data and other similar sources, and on our knowledge of, and our experience to date in, the potential markets for our compounds. Although we believe the data from these third-party sources is reliable, the industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in the section entitled “Risk Factors.” These and other factors could cause results to differ materially from those expressed in the estimates made by third parties and by us.

BASIS OF PRESENTATION

We were incorporated in Delaware on March 19, 2021. On August 10, 2022, we entered into that certain Contribution Agreement (the “Contribution Agreement”) with Chromocell Corporation, a Delaware corporation (“Chromocell Holdings”). Pursuant to the Contribution Agreement, effective July 12, 2022 (the “Contribution Date”), Chromocell Holdings contributed all assets, liabilities and results of operations related to Chromocell Holdings’ therapeutic business, including all patents, pre-clinical and Phase I study results and data, and trade secrets related to the CC8464 compound, in exchange for the issuance by us of 10,000,000 shares of Common Stock and (ii) 600,000 shares of Series A Convertible Preferred Stock (the “Series A Preferred Stock”). Prior to the Contribution Date, we had only nominal assets and liabilities. Accordingly, the financial statements presented in this prospectus for periods prior to the Contribution Date have been prepared on a “carve-out” basis from the financial statements of Chromocell Holdings to represent our financial position and performance as if it had existed on a stand-alone basis. The financial statements presented in this prospectus for periods from and after the Contribution Date reflect our financial position and performance as a stand-alone entity.

All of the assets, liabilities and results of operations of the Company as of and for the periods prior to the Contribution Date were identified based on the assets contributed to the Company from Chromocell Holdings. Management believes the assumptions underlying the Company's carve-out financial statements are reasonable. Nevertheless, the financial statements may not include all of the actual expenses that would have been incurred had the Company operated as a standalone company during the periods presented, and may not reflect the Company's results of operations, financial position and cash flows had the Company operated as a standalone company during the periods presented. Actual costs that would have been incurred if the Company had operated as a standalone company would depend on multiple factors, including organizational structure and strategic decisions made in various areas, including information technology and infrastructure.

On August 3, 2023, we entered into a Side Letter to the Contribution Agreement with Chromocell Holdings (the "Holdings Side Letter"). Pursuant to the Holdings Side Letter, upon closing of the IPO: (a) Chromocell Holdings will re-assume all $1.5 million in direct liabilities previously assumed by the Company in accordance with the Contribution Agreement, (b) Chromocell Holdings will waive the Company's obligations to make a cash payment in the amount of $0.6 million to Chromocell Holdings, and (c) in consideration thereof, the Company will issue to Chromocell Holdings 2,600 shares of Series C Convertible Redeemable Preferred Stock of the Company, par value of $0.0001 per share (the "Series C Preferred Stock").

In connection with the completion of the IPO: (A) we will effect a 1-for- reverse stock split with respect to our Common Stock (the "Reverse Stock Split"), (B) all 600,000 issued and outstanding shares of our Series A Preferred Stock will automatically convert into shares of Common Stock, (C) $393,808 and accrued interest of $ as of the date of this prospectus outstanding under our senior secured convertible notes issued in the April Bridge Financing (as defined below), will automatically convert into shares of Common Stock, (D) $198,128 and accrued interest of $ as of the date of this prospectus outstanding under our senior secured convertible notes issued in the September Bridge Financing (as defined below), will automatically convert into shares of Common Stock (assuming, in the case of (A) through (D) above, an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus), (E) we will re-issue, out of treasury stock, shares of Common Stock to the Series B Investor (as defined below) and, unless waived by us, issue shares of Series B Preferred Stock (as defined below) to such Series B Investor, and (F) we will affect the transactions contemplated by the Holdings Side Letter, and issue an aggregate of 2,600 shares of Series C Preferred Stock to Chromocell Holdings pursuant thereto. We refer to these actions as the "IPO Transactions." In this prospectus, we include certain metrics on an "as adjusted" basis to give effect to the IPO Transactions.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. It may not contain all the information that may be important to you. You should read the entire prospectus carefully, including the section entitled "Risk Factors" and our financial statements and the related notes included elsewhere in this prospectus before making an investment decision to purchase our securities.

In this prospectus, unless we indicate otherwise or the context requires, references to the "Company," "Chromocell," "we," "our," "ours," and "us" refer to Chromocell Therapeutics Corporation. The following summary is qualified in its entirety by the more detailed information and financial statements and notes thereto included elsewhere in this prospectus.

Our Business

Overview

We are a clinical-stage biotech company focused on developing and commercializing new therapeutics to alleviate pain. Our clinical focus is to selectively target the sodium ion-channel known as "NaV1.7", as well as other receptors in the NaV family. NaV1.7 has been genetically validated as a pain receptor in human physiology. Genetic studies have shown that families with a certain inherited NaV1.7 modulation consistently show a pathology of not feeling pain. A NaV1.7 blocker is a chemical entity that modulates the structure of the sodium-channel in a way to prevent the transmission of pain perception to the central nervous system ("CNS"). Our goal is to develop a novel and proprietary class of NaV blockers that target the body's peripheral nervous system, initially for Erythromelalgia ("EM"), a rare condition that primarily affects the feet and, less commonly, the hands (extremities). It is characterized by intense, burning pain of affected extremities, severe redness (erythema), and increased skin temperature that may be episodic or almost continuous in nature.

According to Mordor Intelligence, the global pain management market was valued at approximately $67 billion in 2021, and it is expected to have revenues of $89 billion in 2027, with a compound annual growth rate ("CAGR") of 4.65% over the forecast period. Also, according to Mordor Intelligence, the United States has the largest market for pain management pharmaceuticals and Asia-Pacific is the region showing the strongest growth. North America holds the largest share in the pain management market, with the United States being the most significant contributor to its revenue. According to data published by the Centers for Disease Control and Prevention ("CDC"), in 2019, 20.4% of adults had chronic pain, and 7.4% of adults had chronic pain that had limited work and daily activities frequently. Additionally, according to the CDC, chronic pain increased with age, and the highest level was reported in patients aged 65 years and above. The prescription pain management market in the United States is still largely dominated by opioid analgesics. Opioid analgesics decrease the perception of pain by stimulating a range of opioid receptors that modulate pain signals. The most widely used opioid analgesics, including morphine, fentanyl and hydromorphone, act primarily through the activation of mu opioid receptors in the CNS. However, because of the wide distribution of mu opioid receptors throughout the brain, morphine and other mu opioid analgesics also trigger a characteristic pattern of adverse side effects, in particular severe abuse and addiction.

The global pain market reflects total revenues of drugs mitigating different types of pain, such as backpain, osteoarthritis, post-operative pain and various orphan diseases with pain symptoms. Our current research is focused on EM; correspondingly, our commercial efforts are targeting the potential for EM therapeutics within the overall pain market. According to studies quoted by The Erythromelalgia Association, estimates of the incidence rate for EM vary from 1.3 to 15 per 100,000 persons, reflecting a potential EM patient population up to 5,000 to 50,000 in the U.S. Our lead compound, CC8464, could possibly have applications in pain mitigation outside of EM, but neither biological nor clinical studies have provided sufficient data to enable meaningful predictions on the probability of an expanded range of indications.

CC8464 is designed to address both the underlying condition and mitigate the burning pain symptoms that EM patients experience by blocking the NaV1.7 sodium channel. Genetic studies presented in the Journal of Clinical Investigation have established a correlation between particular mutation in the NaV1.7 gene and the occurrence of EM. Based on the correlation between the mutations and frequency of EM occurrence, we believe CC8464 has the potential to address the underlying condition and mitigate the burning pain symptoms that patients experience. The chemical characteristics of CC8464 restrict its entry into the CNS and limit its effect to the NaV1.7 receptors in the peripheral nervous system, which consists of the nerves outside the brain and spinal cord. Activation of other receptors in the CNS can result in side effects, including addiction and other psychiatric disorders. Since CC8464 is designed to modulate pain signals without activation of receptors in the CNS, it is not expected to produce psychiatric side effects. Based on its characteristics, preclinical studies and the Phase 1 study we have completed to date, we believe that our lead compound CC8464, if approved, could become an attractive option for both patients and physicians as a treatment for moderate-to-severe pain in EM.

We have observed some rashes during the trial for which we developed a mitigation strategy. We plan to proceed with our clinical trials in 2023, focusing on a study to evaluate this rash mitigation strategy and a Phase 2a proof-of-concept study assessing the potential efficacy of CC8464 in EM patients with a genetic disposition. We are evaluating doing the rash mitigation and our proof-of-concept study in a different national jurisdiction acceptable to the FDA, to take advantage of beneficial tax credits or lower costs. One example is Australia, which has a 43.5% tax credit for clinical expenses in Australia. If approved, we believe that CC8464 could provide pain and symptom relief for EM patients. CC8464 is currently the only compound that we have advanced into clinical development.

In addition, there is scientific evidence that the NaV1.7 receptor is present on the cornea and may be a viable biological target for treating eye pain. Eye pain may occur with various conditions including severe dry eye disease, trauma and surgery. Existing therapies for eye pain (such as steroids, topical non-steroidal anti-inflammatory agents, lubricants, local anesthetics) are limited in their effectiveness and/or limited in the duration that they may be prescribed because of safety issues. We may intend to explore the viability of developing CC8464 as a topical agent for the relief of eye pain. A potential advantage of this approach is that topical administration of CC8464, is unlikely to lead to any hypersensitivity or skin reactions like what was noted with systemic administration of CC8464 because the systemic absorption from a topical administration would extremely limited.

We may further expand our pipeline with other internal or external compounds in the future, but all other internally discovered compounds are pre-clinical and no commercial discussions about in-licensing have been initiated to date.

Recent Developments

September Bridge Financing

On September 1, 2023, we entered into a bridge loan for working capital purposes, with various accredited investors, certain of which are pre-existing stockholders, in the aggregate principal amount of $198,128 (the "September Bridge Financing"). The September Bridge Financing consists of senior secured convertible notes that have a maturity date of March 1, 2024. Such notes accrue interest on the unpaid principal amount at a rate of eight percent (8%) per annum and will automatically convert into shares of Common Stock in connection with the IPO at a twenty percent (20%) discount to the price per IPO Share (shares, assuming an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus). The senior secured convertible notes issued in the September Bridge Financing are secured by a security interest in all of our assets (including our patents and intellectual property licenses). In connection with the September Bridge Financing, on September 1, 2023, we also entered into a securities purchase agreement with holders of the notes, pursuant to which we are required to file a registration statement within 180 calendar days after consummation of the IPO, providing for the resale of Common Stock received by holders of the notes upon conversion of such notes. Additionally, we entered into a subordination and intercreditor agreement, effective September 1, 2023, with the holders of the senior secured convertible notes issued in the April Bridge Financing, pursuant to which those notes and certain liens of the Company will be subordinated to the rights of the holders of the notes issued in the September Bridge Financing. For more information regarding our issued and outstanding notes, including the notes issued in the April Bridge Financing and the September Bridge Financing, please refer to "Management's Discussion and Analysis of Financial Condition and Results of Operations".

Entry into Side Letter to the Contribution Agreement

On August 3, 2023, we entered into a Side Letter to the Contribution Agreement with Chromocell Holdings (the "Holdings Side Letter"). Pursuant to the Holdings Side Letter, upon closing of the IPO: (a) Chromocell Holdings will re-assume all $1.5 million in direct liabilities previously assumed by the Company in accordance with the Contribution Agreement, (b) Chromocell Holdings will waive the Company's obligations to make a cash payment in the amount of $0.6 million to Chromocell Holdings, and (c) in consideration thereof, the Company will issue to Chromocell Holdings 2,600 shares of Series C Convertible Redeemable Preferred Stock of the Company, par value of $0.0001 per share (the "Series C Preferred Stock").

We will file a Certificate of Designation of Series C Redeemable Convertible Preferred Stock (the "Series C Certificate of Designation") with the Secretary of State of the State of Delaware designating 5,000 shares of our authorized and unissued preferred stock as Series C Preferred Stock. The Series C Preferred Stock will have a liquidation preference of $1,000 per share. Holders of the Series C Preferred Stock will not be entitled to dividends, will not have voting rights other than as required by law, will be convertible into shares of Common Stock following the IPO at the holder's option, will convert into shares of Common Stock automatically if, following the IPO, the trading price of the Common Stock exceeds certain thresholds, and will be redeemable by the Company for cash. For more information, see "Description of Capital Stock–Series C Preferred Stock."

Entry into Series B Convertible Preferred Stock Purchase Agreement

On , 2023, we entered into a securities purchase agreement with an institutional investor (the "Series B Investor"), pursuant to which (i) the Series B Investor agreed to purchase, upon close of the IPO and at our election, an aggregate of up to shares of Series B Convertible Preferred Stock, par value of $0.0001 per share ("Series B Preferred Stock"), for a purchase price of $1,000 per share, and (ii) in consideration therefor, we will re-issue out of our treasury stock, upon close of the IPO and regardless of whether we issue any shares of Series B Preferred Stock, an aggregate of shares (such shares, the "Standby Shares") of Common Stock to the Series B Investor (such agreement, the "Series B Securities Purchase Agreement"). If we elect to sell shares of Series B Preferred Stock upon close of the IPO, we will file a Certificate of Designation of Series B Convertible Preferred Stock (the "Series B Certificate of Designation") with the Secretary of State of the State of Delaware designating 5,000 shares of our authorized and unissued preferred stock as Series B Preferred Stock. The Series B Preferred Stock will have a liquidation preference of $1,000 per share, will have voting rights, will be convertible by the holder into shares of Common Stock, and will be redeemable by the Company for cash. Holders of our Series B Preferred Stock vote together with holders of our Common Stock on an as converted basis, assuming $4.50 per share of Common Stock, subject to the beneficial ownership limitations as described in the Series B Certificate of Designation. Notwithstanding the foregoing, so long as any shares of our Series B Preferred Stock are outstanding, the vote of the holders of a majority of the then-outstanding shares of our Series B Preferred Stock, voting separately as a single class, with one vote per share, shall be necessary for effecting or validating certain transactions, including (i) the authorization, creation or issuance of, any additional preferred equity, (ii) any alteration or change to the voting powers, rights, preferences or privileges of our Series B Preferred Stock so as to affect them adversely, (iii) the incurrence of indebtedness other than certain permitted indebtedness, or (iv) a merger or consolidation of us with or into another entity. In addition, holders of the Series B Preferred Stock will be entitled to cumulative, accruing dividends at the rate of ten percent (10%) per annum. Such dividends will be guaranteed for the first year after issuance, and will be payable in cash upon redemption by the Company, and in shares of Common Stock upon conversion by the holders. In addition, pursuant to the Series B Securities Purchase Agreement, we are required to file a registration statement within 180 calendar days after consummation of the IPO, providing for the resale of the Standby Shares and shares of Common Stock issuable upon conversion of the Series B Preferred Stock, if issued. For more information, see "Description of Capital Stock–Series B Preferred Stock."

August Side Letter to Investor Note

On August 17, 2023, we entered into a side letter with the holder of the Investor Note (the "August Investor Note Side Letter" and, together with the June Investor Note Side Letter (as defined herein), the "Investor Note Side Letters")) pursuant to which we (i) amended and restated the Investor Note to extend the maturity date to September 30, 2023 and (ii) in consideration therefor, issued to such holder 30,000 shares of Common Stock (shares, after giving effect to the Reverse Stock Split). The Investor Note provides for the accrual of interest equal to 2% of the face amount of $450,000 per month ($9,000 per month) and obligates the holder to subscribe for securities in the IPO in full satisfaction of our repayment obligations under the Investor Note. In addition, pursuant to the August Investor Note Side Letter, we agreed to register the 30,000 shares of Common Stock (shares after giving effect to the Reverse Stock Split), for resale, and pursuant to the June Investor Note Side Letter, we agreed to register the 50,000 shares of Common Stock (shares after giving effect to the Reverse Stock Split), for resale (such shares collectively, the "Holder Shares"), subject to restrictions limiting the number of shares that can be resold in any trading day to 7.5% of the trading volume on such day (such restriction, the "Leak-Out Restriction"). For more information regarding the Investor Note Side Letters, please refer to "Management's Discussion and Analysis of Financial Condition and Results of Operations".

Corporate Information

Chromocell Holdings, our predecessor, was founded in 2002 to commercialize "Chromovert Technology," a proprietary discovery technology with a potential broad range of applications in the biomedical field, including the potential capability to create complex targets (cell-lines) needed for effective high-throughput screening that is commonly used both in therapeutics and flavors discovery. Initially, Chromocell Holdings focused on applications in the food and flavors space.

In approximately 2012, Chromocell Holdings started applying the technology in the therapeutics area. Chromocell Holdings focused its efforts on projects where it believed that the discovery of novel medications were largely held back by difficulties creating complex targets (cell lines) needed for effective high-throughput screening. The NaV1.7 ion-channel is a complex target with a well-established role in pain modulation and management believed it presented an opportunity to apply the technology in an area of unmet medical need. Upon creating the necessary NaV1.7 assays and conducting a large high-throughput campaign, Chromocell Holdings' research team discovered CC8464. After pre-clinical studies and assessments, an IND was filed and CC8464 was evaluated in a Phase 1 study with more than 100 subjects. In 2015, Chromocell Holdings signed an agreement with Astellas Pharma Inc. ("Astellas") for the joint development and commercialization of CC8464. Astellas terminated such agreement in 2018 and returned all rights, including all intellectual property rights on CC8464, to Chromocell Holding.

As both the flavors and the therapeutics businesses grew and increasingly required different expertise, capital and business concepts, Chromocell Holdings made the strategic decision to separate the two businesses.

Chromocell Therapeutics Corporation (the "Company," "we," "us" and "our") was incorporated in Delaware on March 19, 2021. Our principal executive offices are located at 4400 Route 9 South, Suite 1000, Freehold, NJ 07728, and our telephone number is (732) 514-2636. Our website is www.chromocell.com. Information contained on, or that can be accessed through, our website is not incorporated by reference into this prospectus, and you should not consider information on our website to be part of this prospectus.

Implications of Being an Emerging Growth Company

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). An emerging growth company may take advantage of relief from certain reporting requirements and other burdens that are otherwise applicable generally to public companies. These provisions include:

- reduced obligations with respect to financial data, including presenting only two years of audited financial statements and related management's discussion and analysis of financial condition and results of operations in this prospectus;
- an exception from compliance with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act");
- reduced disclosure about our executive compensation arrangements in our periodic reports, proxy statements and registration statements; and
- exemptions from the requirements of holding non-binding advisory votes on executive compensation or golden parachute arrangements.

We may take advantage of these provisions for up to five years or such earlier time that we no longer qualify as an emerging growth company. We would cease to be an emerging growth company upon the earliest of:

- the last day of the fiscal year on which we have $1.235 billion or more in annual revenue,

- the date on which we become a "large accelerated filer" (i.e., as of our fiscal year end, the total market value of our common equity securities held by non-affiliates is $700 million or more as of June 30),

- the date on which we issue more than $1.0 billion of non-convertible debt over a three-year period, or

- the last day of our fiscal year following the fifth anniversary of the date of the completion of the offering of the IPO Shares pursuant to the IPO Prospectus.

We have elected to take advantage of certain of the reduced disclosure obligations regarding financial statements (such as not being required to provide audited financial statements for the fiscal year ended December 31, 2020) in this prospectus and executive compensation in this prospectus and expect to elect to take advantage of other reduced burdens in future filings.

In addition, under the JOBS Act, emerging growth companies can take advantage of an extended transition period and delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to use this extended transition period and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for private companies. If we were to subsequently elect instead to comply with public company effective dates, such election would be irrevocable pursuant to the JOBS Act.

Also, we are a "smaller reporting company" (and may continue to qualify as such even after we no longer qualify as an emerging growth company). For as long as we qualify as a "smaller reporting company," we may provide reduced disclosure in the public filings that we make with the SEC than larger public companies, such as the inclusion of only two years of audited financial statements and only two years of management's discussion and analysis of financial condition and results of operations disclosure.

As a result of qualifying as an emerging growth company and a smaller reporting company, to the extent we take advantage of the allowable reduced reporting burdens, the information that we provide to our stockholders may be different than what you might receive from other public reporting companies in which you hold equity interests.

Summary of Risks Associated with Our Business

Our business is subject to a number of risks that you should be aware of before making an investment decision to purchase our securities. You should carefully consider all of the information set forth in this prospectus and, in particular, should evaluate the specific factors set forth in the section titled "Risk Factors" in deciding whether to invest in our securities. Among these important risks are the following:

- there is substantial doubt about our ability to continue as a going concern.

- we have a limited operating history, have incurred losses since inception and expect to incur losses for the foreseeable future and may never achieve or maintain profitability;

- we have identified material weaknesses in our internal control over financial reporting arising from inadequate segregation of duties, ineffective information technology controls and lack of certain financial reporting and transaction processing controls;

- we will need to raise additional funding in order to receive approval for CC8464 or any other compounds that we may develop;

- we are early in our efforts to develop CC8464, which is the only compound that we have advanced into clinical development, and if we are unable to advance development through clinical trials, obtain regulatory approval in the United States or abroad and ultimately commercialize CC8464, or if we experience significant delays in doing so, our business will be materially harmed;

- there is no guarantee that the results from prior clinical and preclinical studies will be indicative of our ability to complete studies or the results to be obtained in the current or future studies and clinical trials;

- CC8464 may cause undesirable side effects or have other properties that could delay or prevent its regulatory approval, limit the commercial potential or result in significant negative consequences following any potential marketing approval;

- we plan to apply for orphan drug designation for CC8464; however, it may not effectively protect us from competition, and we may be unable to obtain similar designations for future lead compounds. Even if such designation is granted for CC8464 or if Breakthrough Therapy designation, and/or Fast Track designation is granted for CC8464, this may not lead to a faster development, regulatory review or approval process and may not increase the likelihood that any future lead compound will receive approval in the United States;

- we may expend our limited resources to pursue a compound or indication and fail to capitalize on different compounds or indications that may be more profitable or for which there is a greater likelihood of success, and we may not be successful in discovering, developing and commercializing additional compounds;

- we need to establish our market development capabilities to commercialize our products and failure to do so may result in an inability to generate any revenue. Our revenue depends on what we can charge for our product, and government pricing controls and regulations, along with insurance coverage and reimbursement approval, could decrease our ability to generate revenue;

- we face significant competition and our competitors may achieve regulatory approval before us or develop therapies that are more advanced or effective than ours, which may adversely affect our financial condition;

- we may face risks to our manufacturing process, including potential disruptions to supply chain and delays in obtaining regulatory approvals of the processes and facilities needed to manufacture future lead compounds, including CC8464. As we may need to utilize third parties to conduct our manufacturing, we could experience delays in our development and commercialization efforts;

- if we are unable to manage expected growth in the scale and complexity of our operations, our performance may suffer;

- we face risks regarding our ability to retain key employees and scientific advisors, and to attract, retain and motivate qualified personnel;

- we are subject to a range of laws and regulations, including federal and state healthcare fraud and abuse laws, false claims laws, health information and privacy and security laws, and environmental, health, and safety laws. Failure to comply with these laws and associated regulations could result in substantial penalties and liabilities;

- an outbreak of an infectious disease, including COVID-19, or other unfavorable global economic conditions may materially and adversely affect our business and our financial results and could cause a disruption to the development of future compounds;

- we carry risks related to our intellectual property. If we are unable to obtain and maintain adequate U.S. and foreign patent protection for our compounds, if we face litigation or administrative proceedings by a third-party over our patents, if there is a change in U.S. or foreign patent law or interpretation thereof diminishing the value of our patents, or if we are unable to protect the confidentiality of our trade secrets, our business may be materially harmed;

- we carry risks related to third party intellectual property. If a third-party institutes patent litigation against us in the U.S. or a foreign jurisdiction asserting that CC8464 and/or additional lead compounds infringe its patent rights the outcome of which would be uncertain and could have a material adverse effect on the success of our business;

- if the listing application for our Common Stock is not approved by NYSE American, we will not be able to consummate the offering of IPO Shares and will terminate such offering. Even if we are approved to list our Common Stock on NYSE American, failure to maintain such listing could materially adversely affect the value of our Common Stock;

- even if we are able to effect a stock split of our shares of Common Stock to meet NYSE American's initial listing requirements, we cannot assure you that we will be able to continue to comply with NYSE American's listing standards. Further, potential investors may not have an opportunity to check the actual post-split market price of our Common Stock prior to confirming their purchases in the IPO;

- if you receive IPO Shares pursuant to the IPO Prospectus, you will suffer immediate dilution of your investment, and a significant portion of our shares of Common Stock are restricted from immediate resale but may be sold into the market in the near future, which could cause the market price of our Common Stock to drop significantly, even if our business is performing well. There may also be substantial sales of our Common Stock by the Selling Stockholders after the effective date of the registration statement of which this prospectus forms a part, which could have a material adverse effect on the price of our Common Stock;

- The Series B Preferred Stock, if issued, and the Series C Preferred Stock will have a liquidation preference over our Common Stock, which could result in holders of our Common Stock not receiving any proceeds in the event of our liquidation;

- The Series B Preferred Stock, if issued, will contain various prohibitions that may restrict our ability to undertake certain corporate actions, which may adversely impact our ability to enhance stockholder value;

- the price of our securities may be volatile and fluctuate substantially, which could result in substantial losses for purchasers;

- we will incur increased costs as a result of operating as a smaller reporting public company, and our management will be required to devote substantial time to new compliance efforts;

- we have broad discretion in the use of our cash, including the net proceeds from the offering of IPO Shares, and may not use them effectively;

- there is no current public market for our Common Stock; and

- the other factors set forth under "Risk Factors."

These and other risks are more fully described in the section entitled "Risk Factors" in this prospectus. If any of these risks actually occurs, our business, financial condition, results of operations, cash flows, and prospects could be materially and adversely affected. As a result, you could lose all or part of your investment in our securities.

THE OFFERING

Shares of Common Stock offered by us	IPO Shares (shares if the underwriters exercise their over-allotment option in full), based on an assumed initial public offering price of $ per IPO Share, which is the midpoint of the price range set forth on the cover page of the IPO Prospectus.
Shares of Common Stock offered by the Selling Stockholders	Stockholder Shares
Common Stock to be outstanding immediately following the IPO	shares (or shares if the underwriters exercise their over-allotment option in full), based on an assumed initial public offering price of $ per IPO Share, which is the midpoint of the price range set forth on the cover page of the IPO prospectus.
Use of proceeds	We estimate that the net proceeds from the sale of our IPO Shares pursuant to the IPO Prospectus will be approximately $ million (or approximately $ million if the underwriters' option to purchase additional shares is exercised in full), based on an assumed initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use approximately $ million of the net proceeds to fund our continued research and product development of CC8464. We intend to use the remaining net proceeds, if any, for general corporate purposes. The offering of the IPO Shares includes an aggregate of (i) $ in shares at the public offering price per IPO Share directly to a lender holding the Investor Note (shares, assuming an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus) and (ii) $175,000 in shares at the public offering price per IPO Share directly to one of our directors holding the Director Note (shares, assuming an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus). Such shares are being offered in the IPO as repayment of the Investor Note and Director Note in full satisfaction of our obligations thereunder and, accordingly, the amount of net proceeds we receive in the IPO will not increase as a result. However, because the director is not obligated to accept IPO Shares in the IPO in full (or partial) satisfaction of our obligations under the Director Note, we may be required to use a portion of the net proceeds from the IPO to repay the amounts outstanding under the Director Note. In that instance, the net proceeds available to fund our continued research and product development of CC846 would be reduced by up to $175,000, and the number of IPO Shares issued in the IPO would decrease accordingly. We will not receive any proceeds from the sale of the Stockholder Shares by the Selling Stockholders pursuant to the Resale Prospectus. See "Use of Proceeds."
Lock-up	In connection with the IPO, we, our directors, executive officers and substantially all of the holders of our capital stock prior to the IPO, have agreed not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of or otherwise dispose of any of our securities for a period of six months following the closing of the IPO, subject to certain exceptions. In addition, we have agreed not to enter into any Variable Rate Transaction for a period of one year following the closing of the IPO. See "Underwriting."

Representative's Warrants	We will issue to Maxim Group LLC, as representative of the underwriters or its designees, at the closing of the IPO, warrants to purchase the number of shares of Common Stock equal to five percent (5%) of the aggregate number of IPO Shares sold pursuant to the IPO Prospectus (the "Representative's Warrants"). The Representative's Warrants will be exercisable beginning six months from the effective date of the registration statement of which this prospectus forms a part and will expire five years after such date. The exercise price of the Representative's Warrants will equal 100% of the public offering price per IPO Share. See "Underwriting." The IPO Prospectus also relates to the Common Stock issuable upon exercise of the Representative's Warrants.
Advisor Warrants	We have agreed to issue to A.G.P./Alliance Global Partners ("A.G.P.") as a financial advisor in connection with the offering of shares of Common Stock, warrants to purchase the number of shares of Common Stock equal to two percent (2%) of the aggregate number of shares sold pursuant to the IPO Prospectus ("the "Advisor Warrants"), which Advisor Warrants will have terms and conditions identical to the Representative's Warrants. The IPO Prospectus also relates to the Common Stock issuable upon exercise of the Advisor Warrants.
Risk factors	See "Risk Factors" and other information included in this prospectus for a discussion of factors you should consider carefully before deciding to invest in our securities.
Transfer agent and registrar	Our transfer agent and registrar for our Common Stock is Vstock Transfer, LLC, located at 18 Lafayette Place, Woodmere, NY 11598.
Proposed NYSE American symbol	We intend to apply to list our Common Stock on NYSE American under the symbol "CHRO."

Unless we specifically state otherwise or the context otherwise requires, the share information in this prospectus is based on shares of Common Stock outstanding as of , 2023 (prior to giving effect to the Reverse Stock Split) and:

- gives effect to the IPO Transactions, which include, among other items: (i) a 1-for- Reverse Stock Split, (ii) the issuance of shares of Common Stock upon conversion of all issued and outstanding shares of Series A Preferred Stock, (iii) the issuance of shares of Common Stock upon conversion of the senior secured convertible notes issued in connection with the Bridge Financings (as defined below), and (iv) the re-issuance, out of treasury stock, of shares of Common Stock pursuant to the Series B Securities Purchase Agreement, assuming, in the case of each of (i) through (iii) above, an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus;
- gives effect to the issuance of IPO Shares in the IPO, inclusive of: (i) IPO Shares to the public; (ii) IPO Shares to the lender holding the Investor Note; and (iii) IPO Shares to the director holding the Director Note, in each case, assuming an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus;
- assumes no exercise of the underwriters' option to purchase additional shares of Common Stock from us in the IPO;
- assumes no exercise of the Representative's Warrants;
- assumes no exercise of the Advisor Warrants;
- assumes no conversion of the Series B Preferred Stock, if issued, upon close of the IPO;
- assumes no conversion of the Series C Preferred Stock upon issuance at the close of the IPO;
- does not reflect shares of Common Stock that are reserved for future grants or sale under our omnibus equity incentive plan, as amended, which amount includes shares underlying currently outstanding stock options with a weighted average exercise price of $ (all as adjusted for the Reverse Stock Split).

SUMMARY HISTORICAL FINANCIAL DATA

The following tables summarize our financial data as of and for the periods indicated. The balance sheet data as of December 31, 2022, and the statements of operations data for the years ended December 31, 2022 and 2021, are derived from the audited financial statements included elsewhere in this prospectus. The balance sheet data as of June 30, 2023, and the statements of operations data for the six months ended June 30, 2023 and 2022, are derived from the unaudited interim financial statements included elsewhere in this prospectus. These historical results have been prepared on a carve-out basis and are not necessarily indicative of results that may be expected in the future. Please see "Basis of Presentation" in the forepart of this prospectus for more information.

The following summary financial data should be read in conjunction with the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the financial statements and related notes included elsewhere in this prospectus.

Statements of Operations Data:	**For the Six Months Ended June 30, 2023** (Unaudited)	**For the Six Months Ended June 30, 2022** (Unaudited)	**For the Year Ended December 31, 2022** (Audited)	**For the Year Ended December 31, 2021** (Audited)
REVENUE				
Grant revenue	$ -	$ -	$ -	$ -
Total revenue	-	-	-	-
OPERATING EXPENSES				
General and administrative expenses	1,015,506	228,054	1,098,848	496,667
Research and development	236,072	69,166	391,730	209,047
Professional fees	440,165	287,280	827,581	133,282
Total operating expenses	1,691,743	584,500	2,318,159	838,996
NET LOSS FROM OPERATIONS	(1,691,743)	(584,500)	(2,318,159)	(838,996)
OTHER INCOME (EXPENSE)				
Interest expenses	(228,165)	(60,006)	(140,430)	(253)
Gain on forgiveness of PPP loan			-	243,862
Total other expense	(228,165)	(60,006)	(140,430)	243,609
Net loss before provision for income taxes	(1,919,908)	(644,506)	(2,458,589)	(595,387)
Provision for income taxes	-	-	-	-
NET LOSS	$ (1,919,908)	$ (644,506)	$ (2,458,589)	$ (595,387)
Pro forma net (loss) income per common share, basic and diluted[(1)]	$ (0.20)	$ (0.03)	$ (0.25)	$ (0.06)
Weighted-average shares used to compute pro forma net (loss) income per common share, basic and diluted[(1)]	9,503,438	10,000,000	10,000,000	10,000,000

Balance Sheet Data:	**June 30, 2023** (Unaudited)	**December 31, 2022** (Audited)
Total assets	$ 81,893	$ 55,074
Total liabilities	4,982,779	3,761,611
Stockholders' / parent's net deficit	(4,900,886)	(3,706,537)
Total liabilities and stockholders' / parent's net deficit	81,893	55,074

(1) Gives effect to (i) the transactions contemplated by the Contribution Agreement and (ii) the IPO Transactions, in each case, as if each had occurred on January 1, 2021.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the following risks and all other information contained in this prospectus, including our financial statements and the related notes, before investing in our securities. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, also may become important factors that affect us. If any of the following risks occur, our business, financial condition, results of operations and prospects could be materially and adversely affected. In these circumstances, the market price of our Common Stock could decline, and you may lose all or part of your investment.

Risks Related to Our Business

The report of the independent registered public accounting firm on our 2022 and 2021 financial statements contains a going concern qualification.

The report of the independent registered public accounting firm covering our financial statements for the years ended December 31, 2022 and 2021 stated that certain factors, including that we have suffered recurring losses from operations and have an accumulated deficit at December 31, 2022, raised substantial doubt as to our ability to continue as a going concern. Because we are not yet producing sufficient revenue to sustain our operating costs, we are dependent upon raising capital to continue our business. If we are unable to raise capital, we may be unable to continue as a going concern.

We are a clinical stage biopharmaceutical company with a limited operating history.

The operations of our company, contributed to us by Chromocell Holdings, to date have been limited to financing and staffing our Company, developing and licensing compounds, conducting preclinical and clinical studies of CC8464 for EM and other pain indications. We have not yet demonstrated the ability to successfully complete a large-scale, pivotal clinical trial, obtain marketing approval, manufacture a commercial scale product, arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, predictions about our future success or viability may not be as accurate as they could be if we had a history of successfully developing and commercializing pharmaceutical products.

Accordingly, you should consider our prospects in light of the costs, uncertainties, delays and difficulties frequently encountered by companies in the early stages of development, especially early-stage clinical pharmaceutical companies such as ours. Potential investors should carefully consider the risks and uncertainties that a company with a limited operating history will face. In particular, potential investors should consider that we cannot assure you that we will be able to, among other things:

- successfully implement or execute our current business plan, and we cannot assure you that our business plan will lead to an approval or successful commercialization;
- successfully manufacture our clinical lead compound and establish commercial supply;
- successfully complete the clinical trials necessary to obtain regulatory approval for the marketing of our lead compound;
- secure market exclusivity and/or adequate intellectual property rights for our lead compound in each jurisdiction in which we do or plan to commercialize our lead compound or where our competitors are organized or may engage in competitive activity;
- attract and retain an experienced management and advisory team;
- secure acceptance of our lead compound in the medical community and with third-party payors and consumers;
- raise sufficient funds in the capital markets or otherwise to effectuate our business plan; and
- utilize the funds that we do have and/or raise in this offering or in the future to efficiently execute our business strategy.

If we cannot successfully execute any one of the foregoing, our business may fail and your investment will be adversely affected.

We have incurred net losses since inception. We expect to incur losses for the foreseeable future and may never achieve or maintain profitability.

There are numerous risks and uncertainties associated with pharmaceutical product and biological development, and we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability.

We have had net losses since inception, and we had an accumulated deficit of approximately $8.1 million and $6.1 million as of June 30, 2023 and December 31, 2022, respectively, which includes a net loss of approximately $1.9 million and $0.6 million for the six months ended June 30, 2023 and 2022, and approximately $2.5 million and $0.6 million for the years ended December 31, 2022 and 2021, respectively. Overall, these conditions have raised substantial doubt regarding our ability to continue as a going concern beyond one year of the filing of our financial statements. Our ability to continue as a going concern is dependent upon the ability to complete clinical studies and implement our business plan, raise capital, generate sufficient revenues and to control operating expenses.

We have primarily financed our operations through a combination of a series of cash advances, equity raises, licensing arrangements and government grants. Our ability to achieve significant profitability depends on our ability to successfully complete the development of, and obtain the regulatory approvals necessary to commercialize, CC8464 and/or additional lead compounds. We expect that it will take several years, if ever, before we have a commercialized lead compound. The net losses we incur may fluctuate significantly from quarter to quarter.

If we are required by the FDA, the European Medicines Agency ("EMA"), or other regulatory authorities, including, among others, China's National Medical Products Administration, Japan's Pharmaceuticals and Medical Devices Agency, and the Australian National Health and Medical Research Council's Therapeutics Goods Administration, to perform studies in addition to those currently expected, or if there are any delays in completing our clinical trials or the development of CC8464 and/or other lead compounds, our expenses could increase and revenue could be further delayed. We anticipate that our expenses will increase substantially if, and as, we:

- continue our research and the clinical development of CC8464;
- launch in vivo and in vitro studies of CC8464 for the treatment of eye pain;
- initiate additional clinical trials and preclinical studies for any additional lead compounds that we may pursue in the future;
- prepare a U.S. New Drug Application ("NDA") for filing with the FDA, a marketing authorization application, and approvals in certain other countries;
- oversee the manufacturing of material for clinical trials or potential commercial sales;
- develop a lead compound portfolio;
- establish a business development operation to in- our out-license certain assets;
- establish a sales, marketing and distribution infrastructure to commercialize any lead compound for which we may obtain marketing approval;
- develop, maintain, expand, protect and enforce our intellectual property rights portfolio; and/or
- acquire or in-license other compounds and technologies.

To become and remain profitable, we must develop and eventually commercialize one or more lead compounds with significant market potential. This will require us to be successful in a range of challenging activities, including completing the clinical trials, developing and validating commercial scale manufacturing processes, obtaining marketing approval for this lead compound, manufacturing, marketing. Licensing and selling any future lead compounds for which we may obtain marketing approval and satisfying any post-marketing requirements. If we were required to discontinue development of CC8464, if CC8464 does not receive regulatory approval, if we do not obtain our targeted indication(s) for CC8464, or if CC8464 fails to achieve sufficient market acceptance for any indication, we could be delayed by many years in our ability to achieve profitability. Our failure to become and remain profitable would decrease the value of our company and could impair our ability to raise capital, maintain our research and development efforts, expand our business or continue our operations. A decline in the value of our company also could cause you to lose all or part of your investment.

We have identified material weaknesses in our internal control over financial reporting.

Prior to our initial public offering, we were a private company and had limited accounting and financial reporting personnel and other resources with which to address our internal controls and related procedures. In connection with the audit and review, as applicable, of our financial statements for the years ended December 31, 2022 and 2021 and the six months ended June 30, 2023 and 2022, we identified material weaknesses in our internal control over financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. The material weaknesses in our case arose from inadequate segregation of duties, ineffective information technology controls and lack of certain financial reporting and transaction processing controls. If we are unable to remedy our material weaknesses, or if we generally fail to establish and maintain effective internal controls appropriate for a public company, we may be unable to produce timely and accurate financial statements, and we may conclude that our internal control over financial reporting is not effective, which could adversely impact our investors' confidence and our stock price.

We will need to raise additional funding to receive approval for CC8464 or any other lead compound. Such funding may not be available on acceptable terms, or at all. Failure to obtain this necessary capital when needed may force us to delay, limit, sell or terminate certain of our product development efforts or other operations.

To complete the process of obtaining regulatory approval for CC8464 and to build the sales, marketing, licensing and distribution infrastructure that we believe will be necessary to commercialize CC8464, if approved, we will require substantial additional funding. In addition, if we obtain marketing approval for CC8464, we expect to incur significant expenses related to product sales, medical affairs, marketing, manufacturing and distribution.

Our future capital requirements will depend on many factors, including:

- the progress, timing, results and costs of our phase 2a clinical trial for CC8464;
- the progress, timing and costs of manufacturing clinical trial for our planned pivotal clinical trials;
- the potential development and the filing on an IND application for other lead compounds;
- the initiation, scope, progress, timing, costs and results of drug discovery, laboratory testing, manufacturing, preclinical studies and clinical trials for any other lead compounds that we may pursue in the future, if any;
- the outcome, timing and costs of seeking regulatory approvals;
- the costs associated with the manufacturing process development and evaluation of third-party manufacturers;
- the costs of future activities, including product sales, medical affairs, marketing, manufacturing and distribution, in the event we receive marketing approval for CC8464 or any other lead compounds we may develop;
- the extent to which the costs of future lead compounds, if approved, will be paid by health maintenance, managed care, pharmacy benefit and similar healthcare management organizations, or will be reimbursed by government authorities, private health coverage insurers and other third-party payors;
- the costs of commercialization activities for CC8464 and other future lead compounds if we receive marketing approval for CC8464 or any other lead compounds we may develop, including the costs and timing of establishing product sales, medical affairs, marketing, distribution and manufacturing capabilities;
- subject to receipt of marketing approval, if any, revenue received from commercial sale of CC8464 or any of our other lead compounds;
- the terms and timing of any future collaborations, licensing, consulting or other arrangements that we may establish;
- the amount and timing of any payments we may be required or decide to make, or that we may receive, in connection with the licensing, filing, prosecution, maintenance, and enforcement of any patents or other intellectual property rights and defense against third party intellectual property infringement claims, including milestone and royalty payments and patent prosecution fees that we are obligated to pay pursuant to our license agreements, if any;

- the development of alternative treatments for EM or other pain indications;
- our ability to establish and maintain collaborations and licenses on favorable terms, if at all; and
- the extent to which we acquire or in-license other compounds and technologies.

Identifying potential lead compounds and conducting preclinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve product sales. Our lead compounds, if approved, may not achieve commercial success. Our future lead compound's revenues, if any, will be derived from or based on sales of lead compounds that may not be commercially available for many years, if at all. Accordingly, it is unlikely that we will generate product or licensing revenue during the next twelve months and will need to continue to rely on additional financing to achieve our business objectives. Any additional fundraising efforts may divert our management from their day-to-day activities, which may adversely affect our ability to develop and commercialize future lead compounds. Moreover, the terms of any financing may adversely affect the holdings or the rights of our stockholders and the issuance of additional securities, whether equity or debt, by us, or the possibility of such issuance, may cause the market price of our shares to decline. The sale of additional equity or convertible securities would dilute all our stockholders. The incurrence of indebtedness would result in increased fixed payment obligations and a portion of our operating cash flows, if any, being dedicated to the payment of principal and interest on such indebtedness, and we may be required to agree to certain restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. Furthermore, existing securityholders may not agree with our financing plans or the terms of such financings. Adequate additional financing may not be available to us on acceptable terms, or at all. The terms of additional financing may be impacted by, among other things, general market conditions, and the market's perception of future lead compounds. If adequate funds are not available, we may be required to curtail our operations or other business activities or obtain funds through arrangements with strategic partners or others that may require us to relinquish rights to certain technologies or potential markets.

Risks Related to Development, Clinical Testing, and Regulatory Approval

We are early in our efforts to develop CC8464, which is the only compound that we have advanced into clinical development. If we are unable to advance CC8464 through clinical trials, obtain regulatory approval and ultimately commercialize CC8464, or if we experience significant delays in doing so, our business will be materially harmed.

We are early in our development of CC8464. The development and commercialization of CC8464 (or any other compound that we may advance towards clinical development in the future) is subject to many uncertainties, including the following:

- successful enrollment and completion of the two studies we are planning to conduct in the next phase of our clinical trials (Phase 2);
- positive results from our current and planned future clinical trials;
- receipt of regulatory approvals from applicable regulatory authorities;
- successful development of our internal manufacturing processes on an ongoing basis and maintenance of our potential future arrangements with third-party manufacturers for clinical supply;
- commercial launch of CC8464, if and when approved, whether alone or in collaboration with others; and
- acceptance of CC8464, if and when approved, by patients, the medical community and third-party payors.

If we fail in one or more of these factors, we could experience significant delays or an inability to successfully commercialize CC8464, which would materially harm our business. If we do not receive regulatory approvals for CC8464, our business, financial condition, results of operations and prospects could be materially and adversely affected. Advancing a different compound than CC8464 towards clinical development would take substantial time and resources and be subject to the same risks as described here for CC8464.

Our lead compound, CC8464, is in early-stage development, and there is no guarantee that the results from prior clinical and preclinical studies will be indicative of our ability to complete or the results to be obtained in the current or future studies and clinical trials. CC8464 is our only compound in clinical development and advancing a different compound would require substantial time and resources as well as being subject to the same risks and uncertainties as described here for CC8464.

There is no guarantee that results of our potential future clinical trials will be positive or that we will be able to complete this or any potential future clinical trials on the anticipated timelines or at all. Furthermore, research and discoveries by us or others may identify serious adverse events, undesirable side effects or other unexpected properties of our current and future lead compounds, including CC8464, that could delay, prevent or cause the withdrawal of regulatory approval, limit the commercial potential, or result in significant negative consequences following marketing approval.

The regulatory authorities may not complete their review processes in a timely manner, or we may not be able to obtain regulatory approval. Additional delays may result if an FDA Advisory Committee or other regulatory authority recommends non-approval or restrictions on approval. In addition, we may experience delays or rejections based upon additional government regulation from future legislation or administrative action, or changes in regulatory authority policy during the period of product development, clinical trials and the review process.

Regulatory authorities also may approve a future lead compound for more limited indications than requested or they may impose significant limitations in the form of narrow indications, warnings or post-approval safety monitoring program. These regulatory authorities may require precautions or contra-indications with respect to conditions of use or they may grant approval subject to the performance of costly post-marketing clinical trials. In addition, regulatory authorities may not approve the labeling claims that are necessary or desirable for the successful commercialization of CC8464. Any of the foregoing scenarios could materially harm the commercial prospects for CC8464 and materially and adversely affect our business, financial condition, results of operations and prospects.

We may encounter substantial delays in our clinical trials, or we may fail to demonstrate safety and efficacy to the satisfaction of applicable regulatory authorities.

Before obtaining marketing approval from regulatory authorities for the sale of our drug candidates, CC8464 included, we must conduct extensive clinical trials to demonstrate the safety and efficacy of the drug candidate for its intended indications. Clinical trials are expensive, time consuming and uncertain as to outcome. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. A failure of one or more clinical trials can occur at any stage of testing. As CC8464 is our only compound in clinical development, any setback may have a significant negative effect on our business. Events that may prevent successful or timely completion of clinical development include:

- delays in reaching a consensus with regulatory authorities on trial design;
- delays in opening sites and recruiting suitable patients to participate in our clinical trials;
- imposition of a clinical hold by regulatory authorities as a result of a serious adverse event or concerns with a class of drug candidates, or after an inspection of our clinical trial operations or trial sites;
- delays in having patients complete participation in a trial or return for post-treatment follow-up;
- occurrence of serious adverse events associated with the drug candidate that are viewed to outweigh its potential benefits; or
- changes in regulatory requirements and guidance that require amending or submitting new clinical protocols.

In addition, if we had to make manufacturing or formulation changes to CC8464, we would need to conduct additional studies to bridge our modified lead compound to earlier versions. Clinical trial delays could also shorten any periods during which we may have the exclusive right to commercialize CC8464 or allow our competitors to bring products to market before we do, which could limit our potential revenue or impair our ability to successfully commercialize CC8464and may harm our business, financial condition, results of operations and prospects. Any delays, setbacks or failures in our clinical trials could materially and adversely affect our business, financial condition, results of operations and prospects.

Additionally, if the results of our clinical trials are inconclusive or if there are safety concerns or serious adverse events associated with our drug candidates, we may:

- be delayed in obtaining marketing approval, if at all, or be required to conduct additional confirmatory safety and/or efficacy studies causing additional expenses;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings;
- be subject to additional post-marketing testing requirements;
- be required to perform additional clinical trials to support approval or be subject to additional post-marketing testing requirements;
- have regulatory authorities withdraw, or suspend, their approval of the drug or impose restrictions on its distribution;
- be subject to the addition of labeling statements, such as warnings or contraindications;
- be sued; or
- experience damage to our reputation.

As CC8464 is our only compound in clinical development, any setback may have a significant negative effect on our business.

Our drug development costs will increase if we experience delays in testing or obtaining marketing approvals. We do not know whether any of our preclinical studies or clinical trials will begin as planned, need to be restructured or be completed on schedule, if at all.

We, the FDA or an Institutional Review Board may suspend our clinical trials at any time if it appears that we or our collaborators are failing to conduct a trial in accordance with regulatory requirements, including the FDA's current Good Clinical Practice ("GCP"), regulations, that we are exposing participants to unacceptable health risks, or if the FDA finds deficiencies in our IND applications or the conduct of these trials. Therefore, we cannot predict with any certainty the schedule for commencement and completion of future clinical trials. If we experience delays in the commencement or completion of our clinical trials, or if we terminate a clinical trial prior to completion, the commercial prospects of our drug candidates could be negatively impacted, and our ability to generate revenues from our drug candidates may be delayed. As CC8464 is our only compound in clinical development, any setback may have a significant negative effect on our business.

Even if we complete the necessary clinical trials, we cannot predict when, or if, we will obtain regulatory approval to commercialize CC8464 and the approval may be for a narrower indication than we seek.

We cannot commercialize a lead compound until the appropriate regulatory authorities have reviewed and approved the lead compound. Even if CC8464 meets its safety and efficacy endpoints in clinical trials, the regulatory authorities may not complete their review processes in a timely manner, or we may not be able to obtain regulatory approval. Additional delays may result if an FDA Advisory Committee or other regulatory authority recommends non-approval or restrictions on approval. In addition, we may experience delays or rejections based upon additional government regulation from future legislation or administrative action, or changes in regulatory authority policy during the period of product development, clinical trials and the review process.

Regulatory authorities also may approve a lead compound for more limited indications than requested or they may impose significant limitations in the form of narrow indications, warnings or a post-approval safety monitoring program. These regulatory authorities may require precautions or contra-indications with respect to conditions of use or they may grant approval subject to the performance of costly post-marketing clinical trials. In addition, regulatory authorities may not approve the labeling claims that are necessary or desirable for the successful commercialization of CC8464. Any of the foregoing scenarios could materially harm the commercial prospects for CC8464 and materially and adversely affect our business, financial condition, results of operations and prospects as CC8464 is our only compound in clinical development.

CC8464 may cause undesirable side effects or have other properties that could delay or prevent its regulatory approval, limit the commercial potential or result in significant negative consequences following any potential marketing approval.

Our Phase 1 clinical trials have shown that CC8464 can lead to rashes. In addition to this side effect and possibly others caused by the lead compound, the administration process or related procedures also can cause adverse side effects. If any such adverse events occur, our clinical trials could be suspended or terminated. If in the future we are unable to demonstrate that such adverse events were caused by the administration process or related procedures, the FDA, the European Commission, the EMA or other regulatory authorities could order us to cease further development of, or deny approval of, CC8464 for any or all targeted indications. Even if we can demonstrate that any serious adverse events are not product- related, such occurrences could affect patient recruitment or the ability of enrolled patients to complete the trial. Moreover, if we elect, or are required, to delay, suspend or terminate any clinical trial of CC8464, the commercial prospects of such lead compound may be harmed and our ability to generate revenues from this lead compound may be delayed or eliminated. Any of these occurrences may harm our ability to develop other product candidates, and may harm our business, financial condition and prospects significantly. As CC8464 is our only compound in clinical development, any setback may have a significant negative effect on our business.

Additionally, if CC8464 receives marketing approval, the FDA could require us to adopt a post-approval safety monitoring program to ensure that the benefits outweigh its risks, which may include, among other things, a medication guide outlining the risks of the product for distribution to patients and a communication plan to health care practitioners. Furthermore, if we or others later identify undesirable side effects caused by CC8464, several potentially significant negative consequences could result, including:

- regulatory authorities may suspend or withdraw approvals of such lead compound;
- regulatory authorities may require additional warnings on the label;
- we may be required to change the way a lead compound is administered or conduct additional clinical trials;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of CC8464 and could significantly harm our business, financial condition, results of operations and prospects.

Additionally, other regulatory regimes in other geographies, such as the European Union (“EU”), Australia, China and Japan, where we are initially targeting our products, may impose similar conditions or post-monitoring requirements as a result of such findings.

CC8464 is based on a specific mode of administration (dose escalation regime), which makes it difficult to predict the time and cost of development and of subsequently obtaining regulatory approval.

The clinical trial requirements of the FDA, EMA and other regulatory authorities and the criteria these regulators use to determine the safety and efficacy of a compound vary substantially according to the type, complexity, novelty and intended use and market of such compounds. The regulatory approval process for novel compounds such as ours can be more expensive and take longer than for other, better known or more extensively studied compounds.

Regulatory requirements governing pain medication products have been changing as side effects and the addictive nature of opioids became more apparent. The regulatory framework for pain medications has been tightened and these changes may affect our programs and its commercial potential despite our expectations that CC8464 will not show addictive features. Other regulatory regimes that may impact us include: the EU's European Medicines Agency, China's National Medical Products Administration, Japan's Pharmaceuticals and Medical Devices Agency, and the Australian National Health and Medical Research Council's Therapeutics Goods Administration. These are not the only regulatory regimes to which we may be subject in the event we are able to execute on our objectives.

These regulatory review committees and advisory groups and the new guidelines they promulgate may lengthen the regulatory review process, require us to perform additional studies, increase our development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of CC8464 or future lead compounds or lead to significant post-approval limitations or restrictions. As we advance CC8464, we will be required to consult with these regulatory and advisory groups and comply with applicable guidelines. If we fail to do so, we may be required to delay or discontinue development of CC8464. These additional processes may result in a review and approval process that is longer than we otherwise would have expected. Delay or failure to obtain, or unexpected costs in obtaining, the regulatory approval necessary to bring a potential product to market could decrease our ability to generate sufficient product revenue, and our business, financial condition, results of operations and prospects would be materially and adversely affected.

Even if we obtain regulatory approval for CC8464, our only compound in clinical development will remain subject to regulatory oversight.

Even if we obtain any regulatory approval for CC8464, our lead compound, it will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping and submission of safety and other post-market information. Any regulatory approvals that we receive for CC8464 may also be subject to a post-approval safety monitoring program, limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials, and surveillance to monitor the quality, safety and efficacy of the product. For example, the holder of an approved NDA is obligated to monitor and report adverse events and any failure of a product to meet the specifications in the NDA. The holder of an approved NDA also must submit new or supplemental applications and obtain FDA approval for certain changes to the approved product, product labeling or manufacturing process. Advertising and promotional materials must comply with FDA rules and are subject to FDA review, in addition to other potentially applicable federal and state laws.

In addition, product manufacturers and their facilities are subject to payment of user fees and continual review and periodic inspections by the FDA and other regulatory authorities for compliance with cGMP requirements and adherence to commitments made in the NDA or foreign marketing application. If we, or a regulatory authority, discover 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 that product, a regulatory authority may impose restrictions relative to that product, the manufacturing facility or us, including requiring recall or withdrawal of the product from the market or suspension of manufacturing.

If we fail to comply with applicable regulatory requirements following approval of CC8464 or any future lead compound, a regulatory authority may:

- issue a warning letter asserting that we are in violation of the law;
- seek an injunction or impose administrative, civil or criminal penalties or monetary fines;
- suspend or withdraw regulatory approval;
- suspend any ongoing clinical trials;
- refuse to approve a pending NDA or comparable foreign marketing application (or any supplements thereto) submitted by us or our strategic partners;

- restrict the marketing or manufacturing of the product;
- seize or detain the product or otherwise require the withdrawal of the product from the market;
- refuse to permit the import or export of compounds; or
- refuse to allow us to enter into supply contracts, including government contracts.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. The occurrence of any event or penalty described above may inhibit our ability to commercialize CC8464 and adversely affect our business, financial condition, results of operations and prospects.

The FDA's policies, and those of equivalent foreign regulatory agencies, may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of CC8464. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability, which would materially and adversely affect our business, financial condition, results of operations and prospects.

Even if we obtain and maintain approval for our lead compound CC8464 from the FDA, we may never obtain approval for them outside of the United States, which would limit our market opportunities and adversely affect our business.

Approval of a compound in the United States by the FDA does not ensure approval of such compound by regulatory authorities in other countries or jurisdictions, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other foreign countries or by the FDA. Sales of CC8464 or other future lead compounds outside of the United States will be subject to foreign regulatory requirements governing clinical trials and marketing approval. Even if the FDA grants marketing approval for a compound, comparable regulatory authorities of foreign countries also must approve the manufacturing and marketing of the compound in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and more onerous than, those in the United States, including additional preclinical studies or clinical trials. In many countries outside the United States, a compound must be approved for reimbursement before it can be approved for sale in that country. In some cases, the price that we intend to charge for our compounds, if approved, is also subject to approval. We intend to submit a marketing authorization application to the EMA for approval of CC8464in the European Union, but obtaining such approval from the European Commission following the opinion of the EMA is a lengthy and expensive process. Even if a compound is approved, the FDA or the European Commission, as the case may be, may limit the indications for which the product may be marketed, require extensive warnings on the product labeling or require expensive and time-consuming additional clinical trials or reporting as conditions of approval. Regulatory authorities in countries outside of the United States and the European Union also have requirements for approval of compounds with which we must comply prior to marketing in those countries. Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our compounds in certain countries.

Further, clinical trials conducted in one country may not be accepted by regulatory authorities in other countries. Also, regulatory approval for any of our compounds may be withdrawn. If we fail to comply with the regulatory requirements, our target market will be reduced and our ability to realize the full market potential of CC8464 or our future compounds will be harmed and our business, financial condition, results of operations and prospects will be adversely affected.

While we plan to apply for orphan drug designation for CC8464 in the future, it may not effectively protect us from competition, and we may be unable to obtain similar designations for our future lead compounds. For instance, if our competitors are able to obtain orphan drug exclusivity for products that constitute the same drug and treat the same indications as our lead compounds before us, we may not be able to have competing products approved by the applicable regulatory authority for a significant period of time. To date, we have not submitted an application for orphan drug designation.

In connection with the application for our lead compound, CC8464, for the treatment of EM, we also plan to seek orphan drug designation from the FDA. As of the date of this prospectus, we have not submitted an application for orphan drug designation for CC8464. Under the Orphan Drug Act of 1983, the FDA may designate a lead compound as an orphan drug if it is intended to treat a rare disease or condition, which is generally defined as having a patient population of fewer than 200,000 individuals in the United States, or a patient population greater than 200,000 in the United States where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the United States.

Generally, if a compound with an orphan drug designation receives the first marketing approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the FDA from approving another marketing application for a product that constitutes the same drug treating the same indication for that marketing exclusivity period, except in limited circumstances. If another sponsor receives such approval before we do (regardless of our orphan drug designation), we will be precluded from receiving marketing approval for our product for the applicable exclusivity period. The applicable period is seven years in the United States.

Even though we may obtain orphan drug exclusivity for CC8464, that exclusivity may not effectively protect the compound from competition because different drugs can be approved for the same condition. In the United States, even after an orphan drug is approved, the FDA may subsequently approve another drug for the same condition if the FDA concludes that the latter drug is not the same drug or is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care. In the EU, marketing authorization may be granted to a similar medicinal product for the same orphan indication if:

- the second applicant can establish in its application that its medicinal product, although like the orphan medicinal product already authorized, is safer, more effective or otherwise clinically superior;
- the holder of the marketing authorization for the original orphan medicinal product consents to a second orphan medicinal product application; or
- the holder of the marketing authorization for the original orphan medicinal product cannot supply enough quantities of orphan medicinal product.

If we are not able to secure an orphan drug designation, or if the exclusivity associated with such designation does not effectively protect us from competition, our business, financial condition, results of operations and prospects will be adversely affected.

FDA designations to expedite drug development and review, including "orphan drug" designation, Breakthrough Therapy designation, and/or Fast Track designation, even if granted for any of our lead compounds, may not lead to a faster development, regulatory review or approval process and do not increase the likelihood that any of our lead compounds will receive marketing approval in the United States.

As with any future application for "orphan drug" designation for CC8464 from the FDA, there is no assurance that any of our other compounds that we may develop in the future will receive a similar designation from the FDA or that we will receive Breakthrough Therapy or Fast Track designations lead compound. Further, even if we do receive favorable designations from the FDA, the receipt of any of these designations for a lead compound may not result in a faster development process, review or approval compared to products considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA.

We may expend our limited resources to pursue a compound or indication and fail to capitalize on lead compounds or indications that may be more profitable or for which there is a greater likelihood of success.

We have limited financial and managerial resources. As a result, we may forego or delay pursuit of opportunities with other lead compounds or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to timely capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and lead compounds for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular lead compound, we may relinquish valuable rights to that lead compound through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such lead compound.

If we are not successful in discovering, developing and commercializing additional lead compounds, our ability to expand our business and achieve our strategic objectives would be impaired.

Although a substantial amount of our effort initially focuses on developing CC8464 towards approval in the US and other countries, an additional component of our strategy is to discover, develop and potentially commercialize a portfolio of lead compounds to treat orphan diseases and potentially, non-orphan diseases. Identifying new lead compounds requires substantial technical, financial and human resources, whether any lead compounds are ultimately identified. We may not be able to identify new molecules with the potential for clinical development and ultimate approval. Even if we identify lead compounds that initially show promise, we may fail to successfully develop and commercialize such lead compounds for many reasons, including the following:

- the research methodology used may not be successful in identifying potential lead compounds;
- competitors may develop alternatives that render our lead compounds obsolete;
- lead compounds we develop may nevertheless be covered by third parties' patents or other exclusive rights;
- a lead compound may, on further study, be shown to have harmful side effects or other characteristics that indicate it is unlikely to be effective or otherwise does not meet applicable regulatory criteria;
- a lead compound may not be capable of being produced in commercial quantities at an acceptable cost, or at all; and
- a lead compound may not be accepted as safe and effective by patients, the medical community or third-party payors.

If we are unsuccessful in identifying and developing additional lead compounds, our potential for growth may be impaired.

We face significant competition in an environment of rapid technological change and the possibility that our competitors may achieve regulatory approval before us or develop therapies that are more advanced or effective than ours, which may adversely affect our financial condition and our ability to successfully market or commercialize our lead compound, CC8464.

Many of our potential competitors, alone or with their strategic partners, have substantially greater financial, technical and other resources, such as larger research and development, clinical, marketing and manufacturing organizations. Mergers and acquisitions in the biotechnology and pharmaceutical industries may result in even more resources being concentrated among a smaller number of competitors. Our commercial opportunity could be reduced or eliminated if competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any compound that we may develop. Competitors also may obtain FDA or other regulatory approval for their products more rapidly or earlier than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. Additionally, technologies developed by our competitors may render CC8464 uneconomical or obsolete, and we may not be successful in marketing CC8464 against competitors.

In addition, as a result of the expiration or successful challenge of our patent rights, we could face more litigation with respect to the validity and/or scope of patents relating to our competitors' products. The availability of our competitors' products could limit the demand, and the price we are able to charge, for any compound that we may develop and commercialize.

Risks Related to Manufacturing

Delays in obtaining regulatory approvals of the process and facilities needed to manufacture CC8464 or any of our lead compounds or disruptions in our manufacturing process may delay or disrupt our product development and commercialization efforts.

Before we can begin to commercially manufacture CC8464 or any of our lead compounds, whether in a third-party facility or in our own facility, if established, we must pass a pre-approval inspection of our manufacturing facility by the FDA. A manufacturing authorization must also be obtained from the appropriate regulatory authorities. The timeframe required for us to obtain such approvals is uncertain. To obtain approval, we will need to ensure that all our processes, methods and equipment are compliant with cGMP, and perform extensive audits of vendors, contract laboratories and suppliers. If any of our vendors, contract laboratories or suppliers is found to be out of compliance with cGMP, we may experience delays or disruptions in manufacturing while we work with these third parties to remedy the violation or while we work to identify suitable replacement vendors. The cGMP requirements govern quality control of the manufacturing process and documentation policies and procedures. In complying with cGMP, we will be obligated to expend time, money and effort in production, record keeping and quality control to assure that the product meets applicable specifications and other requirements. If we fail to comply with these requirements, we would be subject to possible regulatory action and may not be permitted to sell any compound that we may develop.

In addition, the manufacturing process used to produce our lead compounds is complex, novel and has not been validated for commercial use. To produce enough quantities of our lead compounds for future clinical trials and initial US commercial demand, we will need to increase the scale of our manufacturing process. We employ multiple steps to control our manufacturing process to assure that the process works and that CC8464 is made strictly and consistently in compliance with the process. Problems with, or deviations from, the manufacturing process, even if minor, could result in product defects or manufacturing failures that result in lot failures, product recalls, product liability claims or insufficient inventory. We may encounter problems achieving adequate quantities and quality of clinical-grade materials that meet FDA, EMA or other applicable standards or specifications with consistent and acceptable production yields and costs.

Any contamination in our manufacturing process, shortages of raw materials or failure of any of our key suppliers to deliver necessary components could result in delays in our clinical development or marketing schedules.

Given the nature of sterile product manufacturing, there is a risk of contamination. Any contamination could materially adversely affect our ability to produce CC8464 on schedule and could, therefore, harm our results of operations and cause reputational damage.

Some of the raw materials required in our manufacturing process may be derived from biologic sources. Such raw materials are difficult to procure and may be subject to contamination or recall. A material shortage, contamination, recall or restriction on the use of biologically derived substances in the manufacture of CC8464 could adversely impact or disrupt the commercial manufacturing or the production of clinical material, which could materially and adversely affect our development timelines and our business, financial condition, results of operations and prospects.

Risks Related to Commercialization of Our Lead Compounds

If we are unable to expand our market development capabilities or enter into agreements with third parties to market and sell our lead compounds, we may be unable to generate any revenue.

We currently do not have a market development organization. To successfully commercialize CC8464, if approved, we will need to expand our capabilities to promote market access and build awareness. To successfully commercialize any other products that may result from our development programs, we will need to further expand our market development organization, either on our own or with a third party. The development of our own market development team will be expensive and time-consuming and could delay any product launch. Moreover, we cannot be certain that we will be able to successfully develop this capability. We may enter into collaboration agreements regarding any of our lead compounds with third parties to utilize their established marketing and distribution capabilities, but we may be unable to enter into such agreements on favorable terms, if at all. If any future collaborators do not commit sufficient resources to commercialize our products, or we are unable to develop the necessary capabilities on our own, we will be unable to generate sufficient product revenue to sustain our business. We compete with many companies that currently have extensive, experienced and well-funded medical affairs, marketing and sales operations to recruit, hire, train and retain marketing and sales personnel. We also face competition in our search for third parties to assist us with the sales and marketing efforts of our lead compounds. Without an internal team or the support of a third party to perform marketing and sales functions, we may be unable to compete successfully against these more established companies.

Our efforts to educate the medical community and third-party payors on the benefits of our lead compounds may require significant resources and may never be successful. Such efforts may require more resources than are typically required due to the complexity and uniqueness of our potential products. If any of our lead compounds is approved but fails to achieve market acceptance among physicians, patients or third-party payors, we will not be able to generate significant revenues from such product, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

If the market opportunities for CC8464 or our future lead compounds are smaller than we believe they are, our revenues may be adversely impacted, and our business may suffer.

We are currently focusing our research and product development efforts on CC8464 for the management of EM and, potentially, other fields of neuropathic pain. Our understanding of both the number of people who have EM, as well as the subset of people with this disease who have the potential to benefit from treatment with CC8464, are based on estimates in published literature. These estimates may prove to be incorrect and new studies may reduce the estimated incidence or prevalence of this disease. The number of patients in the United States, the EU and elsewhere may turn out to be lower than expected or these patients may not be otherwise amenable to treatment with CC8464 or may become increasingly difficult to identify and access, all of which would adversely affect our business, financial condition, results of operations and prospects.

Further, there are several factors that could contribute to making the actual number of patients who receive CC8464 less than the potentially addressable market. These include the increased use of currently available medication for mild cases as physicians gain a better understanding diagnosis and treatment of EM, the discovery of novel medications for EM and the lack of widespread availability of, and limited reimbursement for, new therapies in many underdeveloped markets.

Government price controls or other changes in pricing regulation could restrict the amount that we are able to charge for CC8464, if approved, or any of our other lead compounds that may be approved in the future, which would adversely affect our revenue and results of operations.

We expect that coverage and reimbursement of pharmaceutical costs may be increasingly restricted both in the U.S. and internationally. The escalating cost of health care has led to increased pressure on the health care industry to reduce costs. Drug pricing by pharmaceutical companies recently has come under increased scrutiny and continues to be subject to intense political and public debate in the U.S. and abroad. Government and private third-party payors have proposed health care reforms and cost reductions. A number of federal and state proposals to control the cost of health care, including the cost of drug treatments, have been made in the US. Specifically, there have been several recent U.S. Congressional inquiries and proposed bills designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs and reform government program reimbursement methodologies for drugs. In some international markets, the government controls the pricing, which can affect the profitability of drugs. Current government regulations and possible future legislation regarding health care may affect coverage and reimbursement for medical treatment by third-party payors, which may render our lead compounds, if approved, not commercially viable or may adversely affect our anticipated future revenues and gross margins.

We cannot predict the extent to which our business may be affected by these or other potential future legislative or regulatory developments. However, future price controls or other changes in pricing regulation or negative publicity related to the pricing of pharmaceutical drugs generally could restrict the amount that we are able to charge for our future products, which would adversely affect our anticipated revenue and results of operations.

The insurance coverage and reimbursement status of newly approved products is uncertain. Failure to obtain or maintain adequate coverage and reimbursement for our products, if approved, could limit our ability to market those products and decrease our ability to generate product revenue.

We expect that coverage and reimbursement by government and private payors will be essential for most patients to be able to afford these treatments. Accordingly, sales of our lead compounds will depend substantially, both domestically and abroad, on the extent to which the costs of our lead compounds will be paid by health maintenance, managed care, pharmacy benefit and similar healthcare management organizations, or will be reimbursed by government authorities, private health coverage insurers and other third-party payors. Coverage and reimbursement by a third- party payor may depend upon several factors, including the third-party payor's determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

Obtaining coverage and reimbursement for a product from third-party payors is a time-consuming and costly process that could require us to provide to the payor supporting scientific, clinical and cost-effectiveness data. We may not be able to provide data sufficient to gain acceptance with respect to coverage and reimbursement. If coverage and reimbursement are not available, or are available only at limited levels, we may not be able to successfully commercialize our lead compounds. Even if coverage is provided, the approved reimbursement amount may not be adequate to realize a sufficient return on our investment.

There is significant uncertainty related to third-party coverage and reimbursement of newly approved products. In the United States, third-party payors, including government payors such as the Medicare and Medicaid programs, play an important role in determining the extent to which new drugs and biologics will be covered and reimbursed. The Medicare and Medicaid programs increasingly are used as models for how private payors and government payors develop their coverage and reimbursement policies.

Outside the United States, international operations generally are subject to extensive government price controls and other market regulations and increasing emphasis on cost-containment initiatives in the European Union, Canada and other countries may put pricing pressure on us. In many countries, the prices of medical products are subject to varying price control mechanisms as part of national health systems. It also can take a significant amount of time after approval of a product to secure pricing and reimbursement for such product in many counties outside the United States. In general, the prices of medicines under such systems are substantially lower than in the United States. Other countries allow companies to fix their own prices for medical products but monitor and control company profits. Additional foreign price controls or other changes in pricing regulation could restrict the amount that we are able to charge for our lead compounds. Accordingly, in markets outside the United States, the reimbursement for our products will be reduced compared with the United States and may be insufficient to generate commercially reasonable product revenues.

Moreover, increasing efforts by government and third-party payors in the United States and abroad to cap or reduce healthcare costs may cause such organizations to limit both coverage and the level of reimbursement for new products approved and, as a result, they may not cover or provide adequate payment for our lead compounds. Payors increasingly are considering new metrics as the basis for reimbursement rates, such as average sales price, average manufacturer price, and Actual Acquisition Cost. The existing data for reimbursement based on some of these metrics is relatively limited, although certain states have begun to survey acquisition cost data for the purpose of setting Medicaid reimbursement rates, and CMS has begun making pharmacy National Average Drug Acquisition Cost and National Average Retail Price data publicly available on at least a monthly basis. Therefore, it may be difficult to project the impact of these evolving reimbursement metrics on the willingness of payors to cover candidate products that we or our partners are able to commercialize. We expect to experience pricing pressures in connection with the sale of any of our product candidates due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs and surgical procedures and other treatments, has become intense. As a result, increasingly high barriers are being erected to the entry of new products such as ours.

Risks Related to Our Business Operations

We may not be successful in our efforts to identify or discover additional compounds and may fail to capitalize on programs or compounds that may be a greater commercial opportunity or for which there is a greater likelihood of success.

Beyond the development and commercialization of CC8464, the future success of our business depends upon our ability to identify, develop and commercialize compounds based on the platform technology. CC8464 was discovered in our labs using our technologies. Research programs to identify new compounds will require to invest substantial technical, financial and human resources. We may fail to identify other potential compounds for clinical development for several reasons. For example, our research may be unsuccessful in identifying potential compounds or our potential compounds may be shown to have harmful side effects, may be commercially impracticable to manufacture or may have other characteristics that may make the products unmarketable or unlikely to receive marketing approval.

Additionally, because we have limited resources, we may forego or delay pursuit of opportunities with certain programs or compounds or for indications that later prove to have greater commercial potential. Our spending on current and future research and development programs may not yield any commercially viable products. If we do not accurately evaluate the commercial potential for a particular compound, we may relinquish valuable rights to that compound through strategic collaboration, licensing or other arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such compound. Alternatively, we may allocate internal resources to a compound in a therapeutic area in which it would have been more advantageous to enter into a partnering arrangement.

If any of these events occur, we may be forced to abandon our development efforts with respect to a particular compound or fail to develop a potentially successful compound, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

If we are unable to manage expected growth in the scale and complexity of our operations, our performance may suffer.

If we are successful in executing our business strategy, we will need to expand our managerial, operational, financial and other systems and resources to manage our operations, continue our research and development activities and, in the longer term, build a commercial infrastructure to support commercialization of any of our lead compounds that are approved for sale. Future growth would impose significant added responsibilities on members of management. It is likely that our management, finance, development personnel, systems and facilities currently in place may not be adequate to support this future growth. Our need to effectively manage our operations, growth and lead compounds requires that we continue to develop more robust business processes and improve our systems and procedures in each of these areas and to attract and retain enough numbers of talented employees. We may be unable to successfully implement these tasks on a larger scale and, accordingly, may not achieve our research, development and growth goals.

Our future success depends on our ability to retain key employees and scientific advisors and to attract, retain and motivate qualified personnel.

Our success is dependent upon certain key management and technical personnel, the loss of whose services may adversely impact the achievement of our objectives. Our Interim Chief Executive Officer, Chief Financial Officer, Chief Medical Officer, Vice Chairman and Chief Strategy Officer, Treasurer and Corporate Secretary have played key roles in the founding, management, technology development and/or promotion of the Company. We currently do not hold key man insurance on our executives. Even if we do seek to obtain such insurance, we cannot assure you that such insurance will be available on acceptable terms or at all. The loss of the services of either our Interim Chief Executive Officer, Chief Financial Officer, Chief Medical Officer, Vice Chairman and Chief Strategy Officer, Treasurer or Corporate Secretary could have a material adverse effect on our business, financial condition, and results of operations.

We employ additional staff that are critical to implementing our clinical development and business strategy, and further development of our products will require that we recruit additional employees or consultants, particularly qualified scientific and technical personnel. Any inability to retrain and attract key employees or advisors may impede the progress of our research, development and commercialization objectives which could have a material adverse effect on our business, financial condition, results of operations and prospects. In addition, failure to succeed in preclinical or clinical trials or applications for marketing approval may make it more challenging to recruit and retain qualified personnel.

Our employees, principal investigators and advisors may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements.

We are exposed to the risk of fraud or other misconduct by our employees, principal investigators and advisors. Misconduct by these parties could include intentional failures to comply with FDA regulations or the regulations applicable in the EU and other jurisdictions, provide accurate information to the FDA, the EMA and other regulatory authorities, comply with healthcare fraud and abuse laws and regulations in the United States and abroad, report financial information or data accurately or disclose unauthorized activities to us. Sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Such misconduct also could involve the improper use of information obtained during clinical trials or interactions with the FDA or other regulatory authorities, which could result in criminal and civil penalties or sanctions and cause serious harm to our reputation. It is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from government investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, financial condition, results of operations and prospects, including the imposition of significant fines, criminal penalties, or other sanctions.

In addition, principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and receive compensation in connection with such services. Under certain circumstances, we may be required to report some of these relationships to the FDA. The FDA may conclude that a financial relationship between us and a principal investigator has created a conflict of interest or otherwise affected interpretation of the trial. The FDA may therefore question the integrity of the data generated at the applicable clinical trial site and the utility of the clinical trial itself may be jeopardized. This could result in a delay in approval, or rejection, of our marketing applications by the FDA and may ultimately lead to the denial of marketing approval of our current and future drug candidates.

We may be subject, directly or indirectly, to federal and state healthcare fraud and abuse laws, false claims laws and health information privacy and security laws. If we are unable to comply, or have not fully complied, with such laws, we could face substantial penalties.

If we obtain FDA approval for CC8464 and begin commercializing it in the United States, our operations will be directly, or indirectly through our prescribers, customers and purchasers, subject to various federal and state fraud and abuse laws and regulations, including, without limitation, the federal Anti-Kickback Statute, federal civil and criminal false claims laws and the Physician Payments Sunshine Act and regulations. These laws will impact, among other things, our proposed sales, marketing and educational programs. In addition, we may be subject to patient privacy laws by both the federal government and the states in which we conduct our business as well as other jurisdictions. The laws that will affect our operations include, but are not limited to:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons or entities from knowingly and willfully soliciting, receiving, offering or paying any remuneration (including any kickback, bribe or rebate), directly or indirectly, overtly or covertly, in cash or in kind, in return for the purchase, recommendation, leasing or furnishing of an item or service reimbursable under a federal healthcare program, such as the Medicare and Medicaid programs. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand, and prescribers, purchasers and formulary managers on the other. The PPACA amended the intent requirement of the federal Anti-Kickback Statute to clarify that a person or entity does not have to have actual knowledge of this statute or specific intent to violate it;

- federal civil and criminal false claims laws and civil monetary penalty laws which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment or approval from Medicare, Medicaid or other government payors that are false or fraudulent. The PPACA provides that a claim for items or services resulting from an Anti-Kickback Statute violation is a false claim under the federal False Claims Act (the "FCA"). Cases against pharmaceutical manufacturers support the view that certain marketing practices, including off-label promotion, may implicate the FCA;

- the federal Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), which created new federal criminal statutes that prohibit a person from knowingly and willfully executing a scheme or from making false or fraudulent statements to defraud any healthcare benefit program, regardless of the payor (e.g., public or private);

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act ("HITECH"), and its implementing regulations, and as amended again by the final HIPAA omnibus rule, Modifications to the HIPAA Privacy, Security, Enforcement, and Breach Notification Rules under HITECH and the Genetic Information Nondiscrimination Act;

- other modifications to HIPAA, which imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information without appropriate authorization by entities subject to the rule, such as health plans, health care clearinghouses and health care providers;

- federal transparency laws, including the federal Physician Payment Sunshine Act, that require certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with specific exceptions, to report annually to the CMS information related to: (i) payments or other "transfers of value" made to physicians and teaching hospitals and (ii) ownership and investment interests held by physicians and their immediate family members;

- state and foreign law equivalents of each of the above federal laws, state laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts in certain circumstances, such as specific disease states; and

- state and foreign laws that govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available, it is possible that some of our business activities could be subject to challenge under one or more of such laws. If our operations are found to be in violation of any of the laws described above or any other government regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, exclusion from participation in government health care programs, such as Medicare and Medicaid, imprisonment and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, exclusion of products from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations.

The risk of our being found in violation of these laws is increased by the fact that many of them have not been fully interpreted by the regulatory authorities or the courts, and their provisions are open to a variety of interpretations. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. The shifting compliance environment and the need to build and maintain a robust and expandable systems to comply with multiple jurisdictions with different compliance and/or reporting requirements increases the possibility that a healthcare company may run afoul of one or more of the requirements.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the generation, handling, use, storage, treatment, manufacture, transportation and disposal of, and exposure to, hazardous materials and wastes, as well as laws and regulations relating to occupational health and safety. Our operations involve the use of hazardous and flammable materials, including chemicals and biologic materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties. We do not carry specific biological or hazardous waste insurance coverage, and our property, casualty and general liability insurance policies specifically exclude coverage for damages and fines arising from biological or hazardous waste exposure or contamination. Accordingly, in the event of contamination or injury, we could be held liable for damages or be penalized with fines in an amount exceeding our resources, and our clinical trials or regulatory approvals could be suspended.

Although we maintain workers' compensation insurance for certain costs and expenses, we may incur due to injuries to our employees resulting from the use of hazardous materials or other work-related injuries, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for toxic tort claims that may be asserted against us in connection with our storage or disposal of biologic, hazardous or radioactive materials.

We also may incur substantial costs to comply with current or future environmental, health and safety laws and regulations, which have tended to become more stringent over time. These current or future laws and regulations may impair our research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions or liabilities, which could materially adversely affect our business, financial condition, results of operations and prospects.

Unfavorable global economic conditions could adversely affect our business, financial condition or results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets, including conditions that are outside of our control, such as the impact of health and safety concerns, including SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) ("COVID-19") and the Omicron COVID-19 variant, as well as the recent inflation in the United States, foreign and domestic government sanctions imposed on Russia as a result of its recent invasion of Ukraine, and other disruptions to global supply chains. Each of these events has caused or may continue to result in extreme volatility and disruptions in the capital and credit markets. A severe or prolonged economic downturn, whether due to inflationary pressures or otherwise, could result in a variety of risks to our business, including weakened demand for our lead compounds and our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy could strain our suppliers, possibly resulting in supply disruption, or cause delays in payments for our services by third-party payors or our collaborators. Any of the foregoing could harm our business and we cannot anticipate all the ways in which the current economic climate and financial market conditions could adversely impact our business.

Adverse developments affecting the financial services industry, such as actual events or concerns involving liquidity, defaults or non-performance by financial institutions or transactional counterparties, could adversely affect our current and projected business operations and financial condition and results of operations.

Events involving limited liquidity, defaults, non-performance or other adverse developments that affect financial institutions, transactional counterparties or other companies in the financial services industry or the financial services industry generally, or concerns or rumors about any events of these kinds or other similar risks, have in the past and may in the future lead to market-wide liquidity problems. Most recently, on March 10, 2023, Silicon Valley Bank ("SVB") was closed by the California Department of Financial Protection and Innovation, which appointed the Federal Deposit Insurance Corporation ("FDIC") as receiver. Similarly, on March 12, 2023, Signature Bank and Silvergate Capital Corp. were each swept into receivership. Although a statement by the Department of the Treasury, the Federal Reserve and the FDIC indicated that all depositors of SVB would have access to all of their money after only one business day of closure, including funds held in uninsured deposit accounts, borrowers under credit agreements, letters of credit and certain other financial instruments with SVB, Signature Bank or any other financial institution that is placed into receivership by the FDIC may be unable to access undrawn amounts thereunder.

Although we regularly assess our banking relationships and the location of the assets held in the company's account as we believe necessary or appropriate, our access to funding sources and other credit arrangements could be significantly impaired by factors that affect the financial services industry or economy in general. These factors could include, among others, events such as liquidity constraints or failures, the ability to perform obligations under various types of financial, credit or liquidity agreements or arrangements, disruptions or instability in the financial services industry.

A pandemic, epidemic, or outbreak of an infectious disease, such as COVID-19, may materially and adversely affect our business and our financial results and could cause a disruption to the development of our compounds.

Public health crises such as pandemics or similar outbreaks could adversely impact our business. In December 2019, COVID-19 surfaced in Wuhan, China and has since spread worldwide, including to New Jersey where our primary office and laboratory space is located. In response to the COVID-19 pandemic, we reduced staff and slowed down development activities as capital and testing options available to us were more limited. The extent to which COVID-19 will impact our future operations or those of our third-party partners, including our clinical trial operations, will also depend on future developments, which are highly uncertain and cannot be predicted with confidence, including the duration of the pandemic, adverse impacts of the Omicron COVID-19 variant or other COVID-19 variants, new information that will emerge concerning the severity of COVID-19 and the actions to contain COVID-19 or treat its impact, among others.

The continued spread of COVID-19 globally could adversely impact our preclinical or clinical trial operations, including our ability to recruit and retain patients and principal investigators and site staff who, as healthcare providers, may have heightened exposure to COVID-19. COVID-19 may also affect employees of third-party CROs located in affected geographies that we rely upon to carry out our clinical trials.

In addition, the patient populations that our lead and other compounds target may be particularly susceptible to COVID-19, which may make it more difficult for us to identify patients able to enroll in our future clinical trials and may impact the ability of enrolled patients to complete any such trials. Any negative impact COVID-19 has to patient enrollment or treatment, or the execution of our lead compounds could cause costly delays to clinical trial activities, which could adversely affect our ability to obtain regulatory approval for and to commercialize our lead compounds, increase our operating expenses, and have a material adverse effect on our financial results.

On May 11, 2023 the United States government declared an end to the COVID-19 pandemic, but the negative effects from COVID-19 described above may still be present for the foreseeable future.

Our internal computer systems, or those of our collaborators or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of our product development programs.

Our internal computer systems and those of our current and any future collaborators and other contractors or consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. While we have not experienced any such material system failure, accident or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our development programs and our business operations, whether due to a loss of our trade secrets or other proprietary information or other similar disruptions. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability, our competitive position could be harmed, and the further development and commercialization of our compounds could be delayed.

Cyber-security incidents, including data security breaches or computer viruses, could harm our business by disrupting our delivery of services, damaging our reputation or exposing us to liability.

We receive, process, store and transmit, often electronically, confidential data of others. Unauthorized access to our computer systems or stored data could result in the theft or improper disclosure of confidential information, the deletion or modification of records, or could cause interruptions in our operations. These cyber-security risks increase when we transmit information from one location to another, including transmissions over the Internet or other electronic networks. Despite implemented security measures, our facilities, systems, and procedures, and those of our third-party service providers, may be vulnerable to security breaches, acts of vandalism, software viruses, misplaced or lost data, programming and/or human errors, or other similar events which may disrupt our delivery of services or expose the confidential information of our customers and others. Any security breach involving the misappropriation, loss or other unauthorized disclosure or use of confidential information of others, whether by us or a third party, could: (i) subject us to civil and criminal penalties; (ii) have a negative impact on our reputation; or (iii) expose us to liability to our customers, third parties or government authorities.

Product liability lawsuits against us could cause us to incur substantial liabilities and to limit commercialization of any products that we may develop.

Our business exposes us to significant potential product liability risks that are inherent in the development, manufacturing, marketing and sale of human device and drug products. Product liability claims could delay or prevent completion of its development programs, clinical or otherwise. If we succeed in marketing and selling products, such claims could result in a recall of any products or a limitation or other change in the indications for which they may be used. If we cannot successfully defend ourselves against claims that our compounds or drugs caused injuries, we will incur substantial liabilities. Depending on their merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates or drugs that we may develop;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- significant costs to defend the related litigation;
- substantial monetary awards paid to trial participants or patients;
- loss of revenue;
- reduced resources of our management to pursue our business strategy; and
- the inability to commercialize any products that we may develop.

In addition, we currently do not have product liability insurance, but plan to obtain such insurance at appropriate levels prior to initiating studies in humans or clinical trials and prior to marketing and selling any drug or device products. Any insurance we obtain may not provide sufficient coverage against potential liabilities. These liabilities could prevent or interfere with our product development and commercialization efforts. Furthermore, if we were unable or otherwise failed to obtain and maintain sufficient insurance at a reasonable cost to protect it against any such liabilities, that inability could have a material adverse effect on its business.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain adequate U.S. and foreign patent protection for our lead compounds, including CC8464, or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize products and technologies similar or identical to ours, and our ability to successfully commercialize CC8464 and any of our other current or future lead compounds may be adversely affected.

Our success depends, in large part, on our ability to obtain and maintain patent protection in the United States and other countries with respect to CC8464, additional lead compounds in our product pipeline, and our institutional knowledge. The patent prosecution process is expensive, time- consuming and complex. In particular, we may not be able to file, prosecute, maintain, and/or enforce all necessary or desirable patent applications and issued patents at a reasonable cost or in a timely manner.

We have secured U.S. Patent No. 9,458,118 (the "CC8464 Patent"), covering the chemical composition and use of our clinical-stage NaV1.7 blocker. Apart from the CC8464 Patent, we have filed multiple patent applications in foreign jurisdictions, including China, Japan and Europe. It is possible that some of our pending patent applications in foreign jurisdictions will not result in issued patents in a timely fashion or at all, and even if we are granted the patents we are currently pursuing in foreign jurisdictions, the patents may not be issued in a form that will provide us with the full scope of protection that we desire, they may not prevent competitors or other third parties from competing with us, and/or they may not otherwise provide us with a competitive advantage. Our competitors, or other third parties, may be able to circumvent our patents by developing similar or alternative technologies or products in a non-infringing manner. For example, there is no assurance that the CC8464 Patent, or any other patent that we may be granted, will prevent third parties from developing competing technologies. Moreover, our patent estate, including the CC8464 Patent, does not preclude third parties from obtaining intellectual property rights that could interfere with our freedom to use our platform for other indications. Even assuming patents issue from our pending and future patent applications, changes in either the patent laws or interpretation of the patent laws in the United States and foreign jurisdictions may diminish the value of our patents or narrow their scope of protection.

We may not be able to protect our intellectual property or enforce our intellectual property rights adequately throughout the world.

Filing and prosecuting patent applications on CC8464 and future lead compounds, current and future innovations related to our technology, and our institutional knowledge in all countries throughout the world would be prohibitively expensive, and intellectual property protections available in some countries outside the United States, and the enforceability thereof, may differ in scope from those in the United States. Thus, in some cases, we will not seek to obtain patent protection for certain technologies in some jurisdictions outside the United States. In addition, the laws of some foreign countries do not protect intellectual property to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from utilizing our inventions in all countries outside the United States, even in jurisdictions where we do pursue patent protection. Competitors may use our technologies in jurisdictions where we have not pursued and obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States. These products may compete with our lead compounds, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting intellectual property 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, trade secrets and other intellectual property protections, particularly those relating to biotechnology products and those of foreign entities. Such challenges in enforcing rights in these countries could make it difficult for us to stop the infringement of our patents, if pursued and obtained, or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our current and future patent rights in foreign jurisdictions could result in substantial costs and may divert our efforts and attention from other aspects of our business; could put our asserted patents at risk of being invalidated or interpreted narrowly; could put any future patent applications, including continuation and divisional applications, at risk of not issuing; and could provoke third parties to assert their own patent claims against us or to attack the validity of our other patents. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce any intellectual property rights around the world stemming from intellectual property that we develop may be inadequate to obtain a significant commercial advantage in these foreign jurisdictions.

Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of our business.

Our commercial success depends upon our ability (and the ability of any potential future collaborators) to develop, manufacture, market and sell CC8464 and future lead compounds, and to freely use our proprietary technologies (*e.g.*, without infringing the intellectual property rights of others). Many companies and institutions have filed, and continue to file, patent applications related to various aspects of pain management and opioid sparing technology. Because patent applications can take many years to issue, may be confidential for 18 months or more after filing, and can be revised before and after issuance, there may be issued patents and patent applications now pending which may later result in issued patents that a third party asserts are infringed by the manufacture, use, sale, or importation of our products. The biotechnology and pharmaceutical industries are characterized by extensive and complex litigation regarding patents and other intellectual property rights. Our competitors or other third parties may assert infringement claims against us, alleging that our therapeutics, manufacturing methods, formulations or administration methods are covered by their patents. Moreover, we may face patent infringement claims from non-practicing entities that have no relevant product revenue, and against whom our patent portfolio may therefore have no deterrent effect.

Third parties may initiate legal or administrative proceedings attacking the validity of our patents protecting CC8464 and future lead compounds the outcome of which would be uncertain and could have a material adverse effect on the success of our business.

We may in the future become party to, or be threatened with, adversarial proceedings or litigation regarding intellectual property rights with respect to CC8464 or any other lead compound, or related technologies, including, for example, interference proceedings, post grant review challenges, and *inter partes* review before the United States Patent and Trademark Office ("USPTO"). For example, a third party may bring an *inter partes* review challenging our patents and any future patent that may be granted to us. Such proceedings often are used as a tactic by defendants in a patent litigation suit to threaten a patentee's patents, both asserted in the litigation and unasserted. Thus, a competitor, either in response to litigation initiated by us or in the ordinary course, may threaten the validity, enforceability, and breadth of our patents which could have a negative impact on our business and render our patents or other intellectual property rights ineffective or insufficient to prevent competition.

Instituting and defending against patent and other types of intellectual property litigation and administrative proceedings could cause us to spend substantial resources, distract our personnel from their normal responsibilities, and have uncertain outcomes.

Patent and other types of intellectual property litigation and administrative proceedings can involve complex factual and legal questions, and their outcomes are uncertain. A finding of infringement could prevent us from manufacturing and commercializing our technologies, including CC8464, or force us to cease some or all our business operations. If we are found, or believe there is a risk that we may be found, to infringe a third party's valid and enforceable intellectual property rights, we could be required (or may choose) to obtain a license from such a third party to continue developing, manufacturing and marketing our technologies. However, we may not be able to obtain any required license on commercially reasonable terms, if at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors and other third parties access to the same technologies licensed to us, and further, it could require us to make substantial licensing and royalty payments. We could be forced, including by court order, to cease developing, manufacturing and commercializing the infringing technologies, including CC8464. We also could be found liable for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent or other intellectual property right. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business, financial condition, results of operations and prospects.

Litigation or other legal or administrative proceedings relating to intellectual property claims, with or without merit, is unpredictable and generally expensive and time consuming. Competitors may infringe our current or future patents, should such patents issue, or we may be required to defend against claims of infringement or other unauthorized use of third-party intellectual property or third-party attacks against our intellectual property rights. Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property may cause us to incur significant expenses and could distract our scientific and management personnel from their normal responsibilities. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation and administrative proceedings, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation despite our attempts to prevent such disclosure. In addition, there could be public announcements of the results of hearings, motions, or other interim proceedings or developments and, if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our Common Stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing, or distribution activities.

We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing, misappropriating, or successfully challenging our intellectual property rights. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

Changes in United States patent law and its administrative and judicial interpretation could diminish the value of patents in general, thereby impairing our ability to protect our lead compounds.

Patent reform legislation could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. As patent reform legislation can inject serious uncertainty into the patent prosecution and litigation processes, it is not clear what impact future patent reform legislation will have on the operation of our business. However, such future legislation, and its implementation, could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of any issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Moreover, the patent positions of companies engaged in the development and commercialization of pharmaceuticals are particularly uncertain. We cannot assure you that our efforts to seek patent protection for CC8464 and future lead compounds will not be negatively impacted by the future court decisions or changes in guidance or procedures issued by the USPTO. These decisions, and any guidance issued by the USPTO (or changes thereto), could have a material adverse effect on our existing patent portfolio and our ability to protect and enforce our intellectual property rights in the future.

Intellectual property rights and regulatory exclusivity rights do not necessarily address all potential threats.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make products that are similar to our current and future lead compound but that are not covered by the claims of our current patents or of patents that we may own or license in the future;
- we, or any future license partners or collaborators, might not have been the first to file patent applications covering certain aspects of the concerned technologies;
- others may independently develop similar or alternative technologies, or duplicate any of our technologies, potentially without falling within the scope of our current or future issued claims, thus not infringing our intellectual property rights;
- it is possible that our filed or future patent applications will not lead to issued patents;
- issued patents to which we currently hold rights or to which we may hold rights in the future may be held invalid or unenforceable, including as a result of legal challenges by our competitors;
- others may have access to any future intellectual property rights licensed to us on a non-exclusive basis;

- our competitors might conduct research and development activities in countries where we have or intend to pursue patent rights, and then use the information learned from such activities to develop competitive products for sale in our major commercial markets where we do not have patent rights;

- we may not develop additional proprietary technologies that are patentable;

- the patents or other intellectual property rights of others may have an adverse effect on our business; and

- we may choose not to file a patent application covering certain of our trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property.

Should any of these events occur, they could significantly harm our business, financial condition, results of operations and prospects.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed. Our reliance on third parties requires us to share our trade secrets, which increases the possibility that a competitor will discover them or that our trade secrets will be misappropriated or disclosed.

In addition to patent protection, we also rely on the protection of trade secrets, know-how and confidential and proprietary information. The disclosure of our trade secrets would impair our competitive position and could harm our business. However, trade secrets are difficult to protect. To maintain the confidentiality of trade secrets and proprietary information, we rely in part on confidentiality agreements with our employees, consultants, outside scientific collaborators, sponsored researchers, and/or other advisors, and inventions agreements with employees, consultants, and advisors, to protect our trade secrets and other proprietary information. These agreements require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. Our agreements with employees and consultants also provide that inventions conceived by the individual in the course of rendering services to us will be our exclusive property. Despite these efforts, we cannot provide any assurances that 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, others may independently discover our trade secrets and proprietary information.

In the event of unauthorized use or disclosure of trade secrets or proprietary information, these agreements, even if obtained, may not provide sufficient protection for our trade secrets or other confidential information. Further, to the extent that our employees, consultants or contractors use technology or know-how owned by others in their work for the Company, disputes may arise as to the rights in related inventions. This can be of particular concern with respect to university collaborators with us, who typically have pre-existing obligations to their universities to assign intellectual property rights, which university rights generally are superior to assignment rights that we might receive from such individuals.

Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. Moreover, third parties may still obtain this information or may come upon this or similar information independently, and we would have no right to prevent them from using that technology or information to compete with us. Trade secrets will over time be disseminated within the industry through independent development, the publication of journal articles, and the movement of personnel skilled in the art from company to company or academic to industry scientific positions. Though our agreements with third parties typically restrict the ability of our advisors, employees, collaborators, licensors, suppliers, third-party contractors, and/or consultants to publish data potentially relating to our trade secrets, our agreements may contain certain limited publication rights. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent such competitor from using that technology or information to compete with us, which could harm our competitive position. Because from time to time we expect to rely on third parties in the development, manufacture, and distribution of our products and provision of our services, we must, at times, share trade secrets with them. Despite employing the contractual and other security precautions described above, the need to share trade secrets increases the risk that such trade secrets become known by our competitors, are inadvertently incorporated into the technology of others, or are disclosed or used in violation of these agreements. If any of these events occurs or if we otherwise lose protection for our trade secrets, the value of this information may be greatly reduced and our competitive position would be harmed. If we do not apply for patent protection prior to such publication or if we cannot otherwise maintain the confidentiality of our proprietary technology and other confidential information, then our ability to obtain patent protection or to protect our trade secret information may be jeopardized.

Risks Related to this Offering and Ownership of our Common Stock

The market prices and trading volume of our shares of Common Stock may experience rapid and substantial price volatility, which could cause purchasers of our Common Stock to incur substantial losses.

Recently, the market prices and trading volume of shares of Common Stock of other small publicly traded companies with a limited number of shares available to purchasers, have experienced rapid and substantial price volatility unrelated to the financial performance of those companies. Similarly, subsequent to the offering of IPO Shares pursuant to the IPO Prospectus, shares of our Common Stock may experience similar rapid and substantial price volatility unrelated to our financial performance, which could cause purchasers of our Common Stock to incur substantial losses, which may be unpredictable and not bear any relationship to our business and financial performance. Extreme fluctuations in the market price of our Common Stock may occur in response to strong and atypical retail investor interest, including on social media and online forums, the direct access by retail investors to broadly available trading platforms, the amount and status of short interest in our Common Stock and our other securities, access to margin debt, trading in options and other derivatives on our shares of Common Stock and any related hedging and other trading factors.

If there is extreme market volatility and trading patterns in our Common Stock, it may create several risks for investors, including the following:

- the market price of our Common Stock may experience rapid and substantial increases or decreases unrelated to our operating performance or prospects, or macro or industry fundamentals;
- if our future market capitalization reflects trading dynamics unrelated to our financial performance or prospects, purchasers of our Common Stock could incur substantial losses as prices decline once the level of market volatility has abated;
- if the future market price of our Common Stock declines, purchasers of shares of Common Stock may be unable to resell such shares at or above the price at which they acquired them. We cannot assure such purchasers that the market of our Common Stock will not fluctuate or decline significantly in the future, in which case investors could incur substantial losses.

Further, we may incur rapid and substantial increases or decreases in our Common Stock price in the foreseeable future that may not coincide in timing with the disclosure of news or developments by or affecting us. Accordingly, the market price of our Common Stock may fluctuate dramatically, and may decline rapidly, regardless of any developments in our business. Overall, there are various factors, many of which are beyond our control, that could negatively affect the market price of our Common Stock or result in fluctuations in the price or trading volume of our Common Stock, including:

- actual or anticipated variations in our annual or quarterly results of operations, including our earnings estimates and whether we meet market expectations with regard to our earnings;
- our current inability to pay dividends or other distributions;
- publication of research reports by analysts or others about us or the industry in which we operate, including the pharmaceutical or biotechnology industry which may be unfavorable, inaccurate, inconsistent or not disseminated on a regular basis;
- changes in market valuations of similar companies;
- market reaction to any additional equity, debt or other securities that we may issue in the future, and which may or may not dilute the holdings of our existing stockholders;
- additions or departures of key personnel;
- actions by institutional or significant stockholders;
- short interest in our Common Stock or our other securities and the market response to such short interest;
- the dramatic increase in the number of individual holders of our Common Stock and their participation in social media platforms targeted at speculative investing;
- speculation in the press or investment community about our company or industries in which we operate;
- strategic actions by us or our competitors, such as acquisitions or other investments;
- legislative, administrative, regulatory or other actions affecting our business, our industry, including positions taken by the FDA;
- investigations, proceedings, or litigation that involve or affect us;
- the occurrence of any of the other risk factors included in this registration statement of which this prospectus forms a part; and
- general market and economic conditions.

NYSE American may delist our Common Stock from trading, which could limit investors' ability to make transactions in our securities and subject us to additional trading restrictions.

Should we fail to satisfy the continued listing requirements for remaining listed on NYSE American, such as the corporate governance requirements or the minimum closing bid price requirement, NYSE American may take steps to delist our Common Stock. Such a delisting would likely have a negative effect on the price of our Common Stock and would impair your ability to sell or purchase our Common Stock when you wish to do so. In the event of a delisting, we would take actions to restore our compliance with NYSE American's listing requirements, but we can provide no assurance that any such action taken by us would allow our Common Stock to become listed again, stabilize the market price or improve the liquidity of our Common Stock, prevent our Common Stock from dropping below NYSE American's minimum bid price requirement or prevent future non-compliance with such listing requirements.

If we cannot maintain the listing of our Common Stock for trading on NYSE American, we could face significant material adverse consequences, including:

- a limited availability of market quotations for our Common Stock;
- reduced liquidity for our Common Stock;
- a determination that our Common Stock is a "penny stock" which will require brokers trading in our Common Stock to adhere to more stringent rules and possibly result in a reduced level of trading activity in the secondary trading market for our Common Stock;

- a limited amount of news and analyst coverage; and
- a decreased ability to issue additional Common Stock or obtain additional financing in the future.

Provisions in our corporate charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our corporate charter and our bylaws may discourage, delay or prevent a merger, acquisition or other change in control of us that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions also could limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our board of directors is responsible for appointing the members of our management team, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. Among other things, these provisions:

- allow the authorized number of our directors to be changed only by resolution of our board of directors;
- limit the manner in which stockholders can remove directors from the board;
- establish advance notice requirements for stockholder proposals that can be acted on at stockholder meetings and nominations to our board of directors;
- require that stockholder actions must be effected at a duly called stockholder meeting and prohibit actions by our stockholders by written consent;
- limit who may call stockholder meetings;
- authorize our board of directors to issue preferred stock without stockholder approval, which could be used to institute a stockholder rights plan, or so-called "poison pill," that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by our board of directors; and
- authorizing "blank check" preferred stock, which could be issued by our Board of Directors without stockholder approval and may contain voting, liquidation, dividend, and other rights superior to our common stock.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the General Corporation Law of the State of Delaware (the "DGCL"), which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

Our certificate of incorporation and our bylaws provide that the Court of Chancery of the State of Delaware will be the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our certificate of incorporation and our bylaws provide that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the DGCL, our certificate of incorporation or our bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. Notwithstanding the foregoing, the exclusive forum provision does not apply to suits brought to enforce any liability or duty created by the Securities Act, the Exchange Act, or any other claim for which the federal courts have exclusive or concurrent jurisdiction. Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act of the rules and regulations thereunder, and Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder, and notwithstanding the provisions of our Certificate of Incorporation and our Bylaws, compliance with the federal securities laws and the rules and regulations thereunder may not be waived by our investors. The choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. Alternatively, if a court were to find the choice of forum provision contained in our certificate of incorporation and our bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could materially and adversely affect our business, financial condition, and results of operation.

A significant portion of our total outstanding shares are restricted from immediate resale but may be sold into the market in the near future, which could cause the market price of our Common Stock to drop significantly, even if our business is performing well.

Sales of substantial amounts of our shares of Common Stock in the public market following the IPO, or the perception that these sales could occur, could cause the market price of our securities to decline. These sales, or the possibility that these sales may occur, also might make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate.

After giving effect to the IPO Transactions and sale of the IPO Shares pursuant to the IPO Prospectus, we will have outstanding shares of Common Stock. All of the IPO Shares sold pursuant to the IPO Prospectus will be immediately tradable without restriction under the Securities Act of 1933, as amended, or the Securities Act, except for any shares held by "affiliates," as that term is defined in Rule 144 under the Securities Act, or Rule 144.

The remaining shares of Common Stock, other than the Stockholder Shares, will be restricted securities within the meaning of Rule 144 under the Securities Act but will be eligible for resale subject to applicable volume, means of sale, holding period and other limitations of Rule 144 under the Securities Act or pursuant to an exception from registration under Rule 701 under the Securities Act, subject to the lock-up agreements executed in conjunction with the IPO. See "Shares Eligible for Future Sale" for more information.

In addition, we are registering the Stockholder Shares pursuant to the Resale Prospectus and, as a result, all of the Stockholder Shares are freely tradable under the Securities Act, subject to the terms of the lock up agreements (or in the case of the Holder Shares, the Leak-Out Restriction).

Upon completion of the IPO, we intend to file one or more registration statements on Form S-8 under the Securities Act to register the shares of Common Stock to be issued under our equity compensation plans and, as a result, all shares of Common Stock acquired under our plans will also be freely tradable under the Securities Act, subject to the terms of the lock-up agreements, unless purchased by our affiliates. In addition, shares of our Common Stock will be reserved for future issuances under the equity incentive plan that we have adopted.

In connection with the Bridge Financings, we are required to file a registration statement within 180 calendar days after the consummation of the IPO, providing for the resale of Common Stock received by holders of the senior secured convertible notes upon conversion of such notes.

In connection with the Series B Securities Purchase Agreement, we are required to file a registration statement within 180 calendar days after the consummation of the IPO, providing for the resale of the Standby Shares and shares of Common Stock issuable upon conversion of the Series B Preferred Stock, if issued.

In the future, we may issue additional shares of Common Stock or other equity or debt securities convertible into Common Stock in connection with a financing, acquisition, litigation settlement or employee arrangement or otherwise. Any of these issuances could result in substantial dilution to our existing stockholders and could cause the trading price of our securities to decline.

If you purchase IPO Shares in the offering pursuant to the IPO Prospectus, you will suffer immediate dilution of your investment.

The public offering price of the IPO Shares will be substantially higher than the pro forma net tangible book value per share of our Common Stock. Therefore, if you purchase IPO Shares pursuant to the IPO Prospectus, you will pay a price per share that substantially exceeds our pro forma net tangible book value per share. To the extent outstanding warrants, options or other convertible securities may be exercised or converted, you will incur further dilution. Based on the assumed public offering price of $ per IPO Share, which is the midpoint of the price range set forth on the cover page of the IPO Prospectus, you will experience immediate dilution of $ per share, representing the difference between the assumed public offering price per IPO Share and our pro forma as adjusted net tangible book value per share of $. See "Dilution."

The Series B Preferred Stock, if issued, and the Series C Preferred Stock will have a liquidation preference over our Common Stock.

The Series B Preferred Stock, if issued, and the Series C Preferred Stock will rank pari passu with one another and have a liquidation preference that gets paid prior to any payment on our Common Stock. As a result, if we were to liquidate, dissolve or wind-up, each holder of our Series B Preferred Stock, if issued, and each holder of our Series C Preferred Stock, would have the right to receive payment out of our assets available for distribution, before any amount is paid to the holders of our Common Stock, in an amount in cash equal to the aggregate liquidation value of all of the shares of preferred stock held by such holder (plus, in the case of Series B Preferred Stock, any accrued but unpaid dividends, including guaranteed dividends). Although holders of the Series C Preferred Stock are not entitled to dividends, holders of the Series B Preferred Stock are entitled to cumulative, accruing dividends at the rate of ten percent (10%) per annum. Such dividends are guaranteed for the first year after issuance, and are payable upon redemption of the Series B Preferred Stock by the Company, or upon conversion of the Series B Preferred Stock by the holders. The payment of the liquidation preferences on either series of preferred stock could result in holders of our Common Stock not receiving any proceeds if we were to liquidate, dissolve or wind up, either voluntarily or involuntarily.

The existence of the liquidation preferences may reduce the value of our Common Stock, make it harder for us to sell shares of Common Stock in offerings in the future, or prevent or delay a change of control.

The Series B Preferred Stock, if issued, will contain various prohibitions that may restrict our ability to undertake certain corporate actions, which may adversely impact our ability to enhance stockholder value.

The Series B Preferred Stock, if issued, will contain various prohibitions that may restrict our ability to undertake certain corporate actions, without the vote of the holders of a majority of the then-outstanding shares of our Series B Preferred Stock, voting separately as a single class, with one vote per share, including (i) the authorization, creation or issuance of, any additional preferred equity, (ii) any alteration or change to the voting powers, rights, preferences or privileges of our Series B Preferred Stock so as to affect them adversely, (iii) the incurrence of indebtedness other than certain permitted indebtedness, (iv) paying dividends on our Common Stock, (v) changing the nature of our business, or (vi) a merger or consolidation of us with or into another entity. As a result of these covenants, we are limited in the manner in which we conduct our business, and we may be unable to engage in favorable business activities or finance future operations or capital needs, and may adversely impact our ability to take certain actions that potentially could enhance stockholder value.

If securities analysts do not publish research or reports about our business or if they publish negative evaluations of our stock, the price of our stock could decline.

The trading market for our Common Stock will rely, in part, on the research and reports that industry or financial analysts publish about us or our business. If securities analysts do not commence coverage of us, the trading price of our stock could decrease. Additionally, if one or more of the analysts covering our business downgrade their evaluations of our stock, the price of our stock could decline. If one or more of these analysts cease to cover our stock, we could lose visibility in the market for our stock, which in turn could cause our stock price to decline.

The price of our securities may be volatile and fluctuate substantially, which could result in substantial losses for purchasers of our securities in this offering.

The offering price for our securities may not reflect the market price of our securities following this offering. In addition, the market price of our securities is likely to be highly volatile due to many factors, including:

- our ability to successfully proceed to and conduct clinical trials;
- results of clinical trials of our lead compound or those of our competitors;
- the success of competitive products or technologies;
- commencement or termination of collaborations;
- regulatory or legal developments in the United States and other countries;
- 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 any of our current or future lead compounds or clinical development programs;
- the results of our efforts to discover, develop, acquire or in-license additional lead compounds;
- 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 product supply for any approved product 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;
- market conditions in the pharmaceutical and biotechnology sectors;
- general economic, industry and market conditions; and
- the other factors described in this “Risk Factors” section.

In particular, we cannot assure you that you will be able to resell your securities at or above your purchase price. The stock markets have experienced extreme volatility in recent years that has been unrelated to operating performance. These broad market fluctuations may adversely affect the trading price of our securities. In the past, following periods of volatility in the market price of a company’s securities, class action litigation has often been instituted against the affected company. Any litigation of this type brought against us could result in substantial costs and a diversion of our management’s attention and resources, which would harm our business, results of operations, financial condition and cash flows.

No public market for our Common Stock currently exists, and an active trading market may not develop or be sustained.

Prior to the IPO, there has been no public market for our Common Stock. Although we intend to apply to have our Common Stock listed on NYSE American, an active trading market may not develop following the closing of the offering of the IPO Shares pursuant to the IPO Prospectus or, if developed, may not be sustained. The lack of an active market may impair your ability to sell your shares of Common Stock at the time you wish to sell them or at a price that you consider reasonable. The lack of an active market may also reduce the fair market value of your shares of Common Stock. An inactive market may also impair our ability to raise capital to continue to fund operations by selling shares and may impair our ability to acquire other companies or technologies by using our shares as consideration. The initial public offering price for the IPO Shares was determined by negotiations between us and the underwriters and may not be indicative of the future prices of our Common Stock.

We have broad discretion in the use of our cash, including the net proceeds from the offering of the IPO Shares, and may not use them effectively.

Our management will have broad discretion in the application of our cash, including the net proceeds from the offering of the IPO Shares, and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our Common Stock. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our Common Stock to decline and delay the development of CC8464 and any other lead compounds that we may develop. Pending their use, we may invest our cash, including the net proceeds from the IPO, in a manner that does not produce income or that loses value. See "Use of Proceeds."

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our technologies or CC8464.

We may seek additional capital through a combination of public and private equity offerings, debt financings, collaborations and licensing arrangements. To the extent that we raise additional capital through the sale of equity or debt securities, your ownership interest will be diluted, and the terms may include liquidation or other preferences that adversely affect your rights as a stockholder. The incurrence of indebtedness would result in increased fixed payment obligations and could involve restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. If we raise additional funds through strategic partnerships and alliances and licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies or CC8464 or grant licenses on terms unfavorable to us.

We are an "emerging growth company" and the reduced disclosure requirements applicable to emerging growth companies may make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"), and we may take advantage of certain exemptions and relief from various reporting requirements that are applicable to other public companies that are not "emerging growth companies." In particular, while we are an "emerging growth company: (i) we will not be required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act; (ii) we will be exempt from any rules that may be adopted by the Public Company Accounting Oversight Board requiring mandatory audit firm rotations or a supplement to the auditor's report on financial statements; (iii) we will be subject to reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements; and (iv) we will not be required to hold nonbinding advisory votes on executive compensation or stockholder approval of any golden parachute payments not previously approved. Investors may find our common stock less attractive if we rely on the exemptions and relief granted by the JOBS Act. 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 decline or become more volatile.

We have taken advantage of reduced reporting burdens in this prospectus. In particular, we have not included all of the executive compensation information that would be required if we were not an emerging growth company. We cannot predict whether investors will find our common stock less attractive if we rely on certain 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.

In addition, the JOBS Act provides that an emerging growth company may take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

We will incur increased costs as a result of operating as a smaller reporting public company, and our management will be required to devote substantial time to new compliance initiatives.

As a smaller reporting public company, and particularly after we are no longer an emerging growth company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act and rules subsequently implemented by the SEC and NYSE American have imposed various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time consuming and costly. For example, we expect that these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance.

Pursuant to Section 404, we will be required to furnish a report by our management on our internal control over financial reporting, including an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. However, while we remain an emerging growth company, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve compliance with Section 404 within the prescribed period, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented and implement a continuous reporting and improvement process for internal control over financial reporting. Despite our efforts, there is a risk that neither we nor our independent registered public accounting firm will be able to conclude within the prescribed timeframe that our internal control over financial reporting is effective as required by Section 404. This could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. In addition, the terms of Series B Preferred Stock, if issued, will preclude us from paying dividends without first receiving consent to do so from the holders of the Series B Preferred Stock, and the terms of any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our Common Stock will be your sole source of gain for the foreseeable future.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve substantial risks and uncertainties. The forward-looking statements are contained principally in the sections entitled "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business." Forward-looking statements include information concerning our strategy, future operations, future financial position, future revenue, projected expenses, prospects and plans and objectives of management. Forward-looking statements include all statements that are not historical facts and can be identified by terms such as "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict, "project," "seek," "should," "target," "will," "would" or similar expressions and the negatives of those terms.

Forward-looking statements contained in this prospectus include, but are not limited to, statements about the following:

- the initiation, timing, progress and results of preclinical and clinical trials for CC8464 and any other lead compounds, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, the period during which the results of the trials will become available and our research and development programs;
- the timing, scope or results of regulatory filings and approvals, including timing of final FDA marketing and other regulatory approval of CC8464;
- our ability to achieve certain accelerated or orphan drug designations from the FDA;
- our estimates regarding the potential market opportunity for CC8464;
- our research and development programs for our lead compound;
- our plans and ability to successfully develop and commercialize future lead compounds, including CC8464;
- our ability to identify and develop new lead compounds;
- our ability to identify, recruit and retain key personnel;
- our commercialization, marketing and manufacturing capabilities and strategy;
- the implementation of our business model, strategic plans for our business, lead compounds and technology;
- the scalability and commercial viability of our proprietary manufacturing methods and processes;
- the rate and degree of market acceptance and clinical utility of lead compounds;
- our competitive position;
- our intellectual property position and our ability to protect our intellectual property and enforce our intellectual property rights;
- our financial performance;
- developments and projections relating to our competitors and our industry;
- our ability to establish and maintain collaborations or obtain additional funding;
- our expectations related to the use of proceeds from the offering of shares of Common Stock;

- our estimates regarding expenses, future revenue, capital requirements and needs for or ability to obtain additional financing;
- the impact of laws and regulations; and
- our expectations regarding the time during which we will be an emerging growth company under the JOBS Act.

Forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in "Risk Factors" and elsewhere in this prospectus. Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Also, forward-looking statements represent our management's beliefs and assumptions only as of the date of this prospectus. You should read this prospectus and the documents that we have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

USE OF PROCEEDS

We estimate that the net proceeds from our issuance and sale of the IPO Shares pursuant to the IPO Prospectus will be approximately $ million (or $ million if the underwriters exercise in full their option to purchase additional shares of Common Stock), assuming an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus, would increase (decrease) the net proceeds to us from the offering of IPO Shares by approximately $ million, assuming that the number of IPO Shares offered by us, as set forth on the cover page of the IPO Prospectus, remains the same. Similarly, each 100,000 increase (decrease) in the number of IPO Shares offered by us, as set forth on the cover page of the IPO Prospectus, would increase (decrease) the net proceeds to us from the offering of the IPO Shares by approximately $ million, assuming the assumed initial public offering price per IPO Share remains the same.

We intend to use the net proceeds from the offering of the IPO Shares as follows:

- approximately $ million to prepare and conduct a dose escalation study for CC8464 in an effort to establish a safe dose escalation regime which will be designed to avoid a high incidence rate of rashes;
- approximately $ million in vivo and in vitro studies of CC8464 for the treatment of eye pain;
- approximately $ million in an effort to develop and produce research plans for additional indications for clinical trials of CC8464; and
- approximately $ million to prepare and begin conducting a Phase 2a proof-of-concept study of CC8464 for EM;

We intend to use the remaining net proceeds from the IPO, if any, for general corporate purposes.

The expected net proceeds of the offering of IPO Shares will not be sufficient for us to fund any of our future lead compounds, including CC8464, through regulatory approval, and we will need to raise substantial additional capital to complete the development and potential commercialization of our current and any future lead compounds, as well as to establish commercial supply and a sales organization.

The amounts and timing of our actual expenditures will depend on numerous factors, including the progress of our preclinical and clinical trials and other development and potential commercialization efforts for CC8464 and any future lead compounds, as well as the amount of cash used in our operations. Although we have no present intention or commitment to do so, we may use a portion of the net proceeds for the acquisition of, or investment in, technologies, intellectual property or businesses that complement our business.

Our expected use of net proceeds from the IPO represents our current intentions based upon our present plans and business condition. As of the date of the IPO Prospectus, we cannot predict with complete certainty all of the particular uses for the net proceeds to be received upon the completion of the IPO or the actual amounts that we will spend on the uses set forth above. We may find it necessary or advisable to use the net proceeds for other purposes, and our management will retain broad discretion over the allocation of the net proceeds from the IPO. Pending the uses described above, we plan to invest the net proceeds from the IPO in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

The amount of net proceeds set forth above assumes the issuance of (i) $ in IPO Shares at the public offering price per IPO Share directly to the lender holding the Investor Note (IPO Shares, assuming an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus) and (ii) $175,000 in IPO Shares at the public offering price per IPO Share directly to one of our directors holding the Director Note (IPO Shares, assuming an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus) in each case, as repayment of such Investor Note and Director Note in full satisfaction of our obligations thereunder and, accordingly, the amount of net proceeds we receive in the IPO will not increase as a result. However, because the director is not obligated to accept shares of Common Stock in the IPO in full (or partial) satisfaction of our obligations under the Director Note, we may be required to use a portion of the net proceeds from the IPO to repay the amounts outstanding under the Director Note. In that instance, the net proceeds available to fund our continued research and product development of CC846 would be reduced by up to $175,000, and the number of IPO Shares issued in the IPO would decrease accordingly.

The Investor Note, as amended and restated on August 17, 2023, has a maturity date of September 30, 2023, and accrues interest equal to 2% of the face amount of $450,000 per month ($9,000 per month). The proceeds received from the Investor Note were used for working capital purposes.

The Director Note has a maturity date of December 31, 2023 and accrues no interest beyond the original issue discount of $75,000 (except in the case of certain events of default). The proceeds received from the Director Note were used for working capital purposes.

We will not receive any proceeds from the sale of the Stockholder Shares by the Selling Stockholders pursuant to the Resale Prospectus.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any dividends on our common stock in the foreseeable future. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions and other factors that our board of directors may deem relevant. In addition, the terms of Series B Preferred Stock, if issued, will restrict our ability to pay dividends on our Common Stock without first obtaining consent of the holders of the Series B Preferred Stock.

CAPITALIZATION

The following table sets forth our cash and our capitalization as of June 30, 2023:

- on an actual basis;
- on an as adjusted basis, after giving effect to: (A) the issuance of the senior secured convertible notes in connection with the September Bridge Financing and the receipt of $198,128 in cash in connection therewith; (B) the issuance of the 30,000 shares of Common Stock to holder of the Investor Note (prior to giving effect to the Reverse Stock Split); and (C) the IPO Transactions, which include: (i) the 1-for- Reverse Stock Split; (ii) the issuance of shares of Common Stock upon conversion of all issued and outstanding shares of Series A Preferred Stock; (iii) the issuance of shares of Common Stock upon the conversion of the senior convertible notes issued in the Bridge Financings; (iv) the close of the transactions contemplated by the Series B Securities Purchase Agreement, including the re-issuance, out of treasury stock, of an aggregate of Standby Shares to the Series B Investor and the assumed issuance of an aggregate of shares of Series B Preferred Stock to the Series B Investor, and the receipt of $ in cash in exchange therefor, upon close of the IPO, and (v) the close of the transactions contemplated by the Holdings Side Letter, including the re-assumption of liabilities by Chromocell Holdings previously assumed by the Company, the waiver by Chromocell Holdings of the Company's obligation to make a cash payment in respect of certain expenses upon close of the IPO, and the issuance of an aggregate of 2,600 shares of Series C Preferred Stock, assuming, in the case of each IPO Transaction referred to in (C)(i)-(iii) above, an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus; and
- on a further as adjusted basis, after giving effect to the transactions described above, the sale of IPO Shares in the IPO at an assumed public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus (which amount includes IPO Shares sold in full satisfaction of the Investor Note and Director Note), after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us (a portion of which were paid prior to June 30, 2023).

You should read this table together with the sections of this prospectus captioned "Use of Proceeds," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Description of Capital Stock" and our consolidated financial statements and related notes included elsewhere in this prospectus.

	As of June 30, 2023[1]		
	Actual (Unaudited)	As Adjusted	As Further Adjusted
Cash[2]	$ 81,893		
Debt			
Bridge Financings, net of debt discount	450,000		
Loan Payable	90,157		
Loan Payable – Related Party	443,203		
Stockholders' equity:			
Series A Preferred Stock; $0.0001 par value per share; 700,000 shares authorized, 600,000 shares issued and outstanding, actual; 700,000 shares authorized and zero shares issued and outstanding, as adjusted; and 700,000 shares authorized and zero shares issued and outstanding, as further adjusted	60		
Series B Preferred Stock; $0.0001 par value per share; zero shares authorized, zero shares issued and outstanding, actual; 5,000 shares authorized and shares issued and outstanding, as adjusted; and 5,000 shares authorized and shares issued and outstanding, as further adjusted[2]	-		
Series C Preferred Stock; $0.0001 par value per share; zero shares authorized, zero shares issued and outstanding, actual; 5,000 shares authorized and 2,600 shares issued and outstanding, as adjusted; and 5,000 shares authorized and 2,600 shares issued and outstanding, as further adjusted	-		
Common Stock; $0.0001 par value per share; 100,000,000 shares authorized, 8,846,296 shares issued and outstanding, actual; shares authorized and shares issued and outstanding, as adjusted; and shares authorized and shares issued and outstanding, as further adjusted	885		
Treasury Stock at cost, 1,153,704 shares, actual; shares, as adjusted; shares, as further adjusted	-		
Additional paid-in capital	3,156,933		
Accumulated deficit	(8,058,764)		
Total stockholders' (deficit) equity	(4,900,886)		
Total capitalization	$ (5,884,246)		

(1) On an actual, as adjusted basis and as further adjusted basis, reflects approximately $163,578 in offering expenses paid on or prior to June 30, 2023.

(2) Assumes the issuance of an aggregate of shares of Series B Preferred Stock to the Series B Investor, and the receipt of $ in cash in exchange therefor, upon close of the IPO, unless waived by us, pursuant to the Series B Securities Purchase Agreement.

DILUTION

If you invest in our securities, your ownership interest will be immediately diluted to the extent of the difference between the initial public offering price per IPO Share and the as further adjusted net tangible book value per share of our Common Stock immediately after the IPO.

Pro forma net tangible book value per share represents the amount of our total tangible assets as adjusted to take into account: (A) the issuance of the senior secured convertible notes in connection with the September Bridge Financing and the receipt of $198,128 in cash in connection therewith; (B) the issuance of the 30,000 shares of Common Stock to holder of the Investor Note (prior to giving effect to the Reverse Stock Split); and (C) the IPO Transactions, which include: (i) the 1-for- Reverse Stock Split; (ii) the issuance of shares of Common Stock upon conversion of all issued and outstanding shares of Series A Preferred Stock; (iii) the issuance of shares of Common Stock upon the conversion of the senior convertible notes issued in the Bridge Financings; (iv) the close of the transactions contemplated by the Series B Securities Purchase Agreement, including the re-issuance, out of treasury stock, of an aggregate of Standby Shares and the assumed issuance of an aggregate of shares of Series B Preferred Stock to the Series B Investor, and the receipt of $ in cash in exchange therefor, upon close of the IPO, and (v) the close of the transactions contemplated by the Holdings Side Letter, including the re-assumption of liabilities by Chromocell Holdings previously assumed by the Company, the waiver by Chromocell Holdings of the Company's obligation to make a cash payment in respect of certain expenses upon close of the IPO, and the issuance of an aggregate of 2,600 shares of Series C Preferred Stock, assuming, in the case of each IPO Transaction referred to in (C)(i)-(iii) above, an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus. After giving effect to such transactions, our pro forma net tangible book value per share as of June 30, 2023 would have been approximately $ per share.

After giving effect to the transactions referred to above and the sale of IPO Shares in the IPO at an assumed public offering price of $ per IPO Share, the midpoint of the price range on the cover of the IPO Prospectus (which number of IPO Shares includes the issuance of IPO Shares in full satisfaction of our obligations under the Investor Note and the Director Note), after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of June 30, 2023 would have been $ million, or $ per share. This represents an immediate increase in as adjusted net tangible book value of $ per share to our existing stockholders and an immediate dilution of $ per share to new investors participating in the IPO.

Assumed public offering price per share		$
Pro forma net tangible book value per share as of June 30, 2023	$	
Increase in pro forma net tangible book value per share attributed to the investors in the offering of shares of Common Stock		
Pro forma as adjusted net tangible book value per share after giving effect to the offering of shares of Common Stock		
Dilution to net tangible book value per share to new investors purchasing shares of Common Stock in the offering of shares of Common Stock		$

(1) Each $1.00 increase (decrease) in the assumed initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus, would increase our pro forma as adjusted net tangible book value per share after the IPO by $ per share and the dilution per share to new investors participating in the IPO by $ per share, assuming that the number of IPO Shares offered by us, as set forth on the cover page of the IPO Prospectus, remains the same, and after deducting underwriting discounts and estimated offering expenses payable by us. Similarly, each 100,000 increase (decrease) in the number of IPO Shares offered by us would increase (decrease) the pro forma as adjusted net tangible book value per share after the IPO by $ per share and the dilution per share to new investors participating in the IPO by $ per share, assuming that the assumed initial public offering price remains the same, after deducting underwriting discounts and estimated offering expenses payable by us.

If the underwriters exercise in full their option to purchase up to additional shares of Common Stock to cover over-allotments, if any, the pro forma as adjusted net tangible book value per share after giving effect to the IPO would be $ per share, representing an immediate increase (decrease) to existing stockholders of $ per share and immediate dilution to new investors participating in the IPO of $ per share, assuming that the assumed initial public offering price remains the same, after deducting underwriting discounts and estimated offering expenses payable by us.

The following table summarizes, on a pro forma as adjusted basis as of June 30, 2023, the differences between the number of IPO Shares purchased from us, the total cash consideration and the average price per share paid to us by existing stockholders and by new investors purchasing IPO Shares in the IPO at an assumed public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus, before deducting estimated underwriting discounts and estimated offering expenses payable by us:

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders		%	$	%	$
New public investors		%	$	%	$
Total		100%	$	100%	$

If the underwriters exercise their option to purchase additional shares of Common Stock in full, the number of shares of Common Stock held by existing stockholders will be reduced to % of the total number of shares of Common Stock to be outstanding after the IPO, and the number of shares of Common Stock held by investors participating in the IPO will be further increased to % of the total number of shares of Common Stock to be outstanding after the IPO, based on all of the assumptions described above in this section.

To the extent any outstanding securities are exercised or converted or to the extent that we issue new securities which result in the issuance of additional shares of Common Stock, new investors would experience further dilution.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with the section entitled "Summary Historical Financial Data" and our financial statements and related notes appearing in this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the "Risk Factors" section of this prospectus, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We are a clinical-stage biotech company focused on developing and commercializing new therapeutics to alleviate pain. Our clinical focus is to selectively target the sodium ion-channel known as "NaV1.7", as well as other receptors in the NaV family. NaV1.7 has been genetically validated as a pain receptor in human physiology. Our goal is to develop a novel and proprietary class of NaV blockers that target the body's peripheral nervous system and have demonstrated safety in a Phase 1 study with more than 100 subjects. We plan to proceed with our clinical trials in 2023, focusing on a study to evaluate the rash mitigation strategy and a Phase 2a proof-of-concept study assessing the potential efficacy of CC8464 in EM patients with a genetic disposition.

We were incorporated in Delaware on March 19, 2021. On August 10, 2022, we entered into the Contribution Agreement with Chromocell Holdings. Pursuant to the Contribution Agreement, as of the Contribution Date, we acquired from Chromocell Holdings all assets, liabilities and results of operations related to Chromocell Holdings' therapeutic business, including all patents, pre-clinical and Phase I study results and data, and trade secrets related to the CC8464 compound, in exchange for the issuance by us of 10,000,000 shares of Common Stock and (ii) 600,000 shares of Series A Preferred Stock.

Prior to the Contribution Date, we had only nominal assets and liabilities. Accordingly, the financial statements presented in this prospectus for periods prior to the Contribution Date have been prepared on a "carve-out" basis from the financial statements of Chromocell Holdings to represent our financial position and performance as if it had existed on a stand-alone basis. The financial statements presented in this prospectus for periods from and after the Contribution Date reflect our financial position and performance as a stand- alone entity.

All of the assets, liabilities and results of operations of the Company as of and for the periods prior to the Contribution Date were identified based on the assets acquired by the Company from Chromocell Holdings. Management believes the assumptions underlying the Company's carve-out financial statements are reasonable. Nevertheless, the financial statements may not include all of the actual expenses that would have been incurred had the Company operated as a standalone company during the periods presented, and may not reflect the Company's results of operations, financial position and cash flows had the Company operated as a standalone company during the periods presented. Actual costs that would have been incurred if the Company had operated as a standalone company would depend on multiple factors, including organizational structure and strategic decisions made in various areas, including information technology and infrastructure.

On August 3, 2023, we entered into the Holdings Side Letter to the Contribution Agreement. Pursuant to the Holdings Side Letter, upon closing of the IPO: (a) Chromocell Holdings will re-assume all $1.5 million in direct liabilities previously assumed by the Company in accordance with the Contribution Agreement, (b) Chromocell Holdings will waive the Company's obligations to make a cash payment in the amount of $0.6 million to Chromocell Holdings, and (c) in consideration thereof, we will issue to Chromocell Holdings 2,600 shares of Series C Preferred Stock.

In connection with the completion of the IPO: (A) we will effect a 1-for- Reverse Stock Split, (B) all 600,000 issued and outstanding shares of our Series A Preferred Stock will automatically convert into shares of Common Stock, (C) $ and accrued interest of $ as of the date of this prospectus outstanding under our senior secured convertible notes issued in the Bridge Financings will automatically convert into shares of Common Stock (assuming, in the case of (A) through (C) above, an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus), (D) we will re-issue, out of treasury stock, Standby Shares to the Series B Investor and, unless waived by us, issue shares of Series B Preferred Stock to such Series B Investor, and (E) we will affect the transactions contemplated by the Holdings Side Letter, and issue an aggregate of 2,600 shares of Series C Preferred Stock to Chromocell Holdings pursuant thereto. We refer to these actions as the "IPO Transactions."

Going Concern

For the six months ended June 30, 2023 and 2022 and years ended December 31, 2022 and 2021, respectively, we had a net loss of $1.9 million, $0.6 million, $2.5 million, and $0.6 million, respectively, and will require significant additional capital in order to operate in the normal course of business and fund clinical studies. As a result, these conditions have raised substantial doubt regarding our ability to continue as a going concern beyond one year of the filing of our financial statements. While we believe in the viability of management's strategy to raise funds and control costs during the development stage, there can be no assurances to that effect. Our ability to continue as a going concern is dependent upon the ability to complete clinical studies and implement our business plan, raise capital, generate sufficient revenues and to control operating expenses.

Results of Operations

Comparison of the Six Months Ended June 30, 2023 and 2022

The following table summarizes our results of operations for the six months ended June 30, 2023 and 2022:

	For the Six Months Ended June 30, 2023 (Unaudited)	For the Six Months Ended June 30, 2022 (Unaudited)	$ Change	% Change
OPERATING EXPENSES				
General and administrative expenses	$ 1,015,506	$ 228,054	$ 787,452	345%
Research and development	236,072	69,166	166,906	241%
Professional fees	440,165	287,280	152,885	53%
Total operating expenses	1,691,743	584,500	1,107,243	189%
Loss from operations	(1,691,743)	(584,500)	(1,107,243)	(189)%
Other expense	(228,165)	(60,006)	(168,159)	(280)%
Net loss before provision for income taxes	(1,919,908)	(644,506)	(1,275,402)	(198)%
Provision for income taxes	-	-	-	NA
Net loss	$ (1,919,908)	$ (644,506)	$ (1,275,402)	(198)%

Operating Expenses

Our operating expenses consist of general and administrative expenses, research and development expenses and professional fees.

General and Administrative Expenses

We incurred general and administrative expenses for the six months ended June 30, 2023 and 2022 of $1,015,506 and $228,054, respectively. For the six months ended June 30, 2023, compared to the same period in 2022, this represented an increase of $787,452, or 345%, primarily as a result of increases of $599,559 in stock-based compensation and $114,409 in payroll expenses for the six months ended June 30, 2023.

Research and Development Expenses

We incurred research and development expenses for the six months ended June 30, 2023 and 2022 of $236,072, and $69,166, respectively. For the six months ended June 30, 2023, compared to the same period in 2022, this represented an increase of $166,906, or 241%, with the details set forth in the table below:

	For the Six Months Ended June 30, 2023 (Unaudited)	For the Six Months Ended June 30, 2022 (Unaudited)	$ Change	% Change
Consultant	$ 23,300	$ 36,450	$ (13,150)	(36)%
Lab Gas	-	4,893	(4,893)	(100)%
Lab Cell Storage	17,753	23,929	(6,176)	(26)%
IP Services	195,019	3,894	191,125	4,908%
Total	$ 236,072	$ 69,166	$ 166,906	241%

The Company incurred higher research and development expenses for the six months ended June 30, 2023, versus the corresponding period in 2022 primarily as a result of intellectual property services in support of the patent portfolio and development of CC8464.

Professional Fees

We incurred professional expenses for the six months ended June 30, 2023 and 2022 of $440,165 and $287,280, respectively. For the six months ended June 30, 2023, compared to the same period in 2022, this represented an increase of $152,885, or 53%, as a result of higher auditing and legal expenses associated with IPO readiness activities.

Other (Expense) Income

We incurred other expense for the six months ended June 30, 2023 of $228,165 as compared to other expense for the six months ended June 30, 2022 of $60,006. For the six months ended June 30, 2023, compared to the same period in 2022, this represented an increase of $168,159, or 280%. The other expense for the six months ended June 30, 2023 was the result of interest expense and the other expense for the six months ended June 30, 2022 was the result of the amortization of a debt discount for debt incurred in 2022 and costs incurred related to our current period debt extensions.

Comparison of the Years Ended December 31, 2022 and 2021

The following table summarizes our results of operations for the years ended December 31, 2022 and 2021:

	December 31, 2022	2021	$ Change	% Change
Revenue	$ -	$ -	$ -	0%
General and administrative expenses	1,098,848	496,667	602,181	121%
Research and development	391,730	209,047	182,683	87%
Professional fees	827,581	133,282	694,299	521%
Total operating expenses	2,318,159	838,996	1,479,163	176%
Loss from operations	(2,318,159)	(838,996)	(1,479,163)	176%
Total other (expense) income	(140,430)	243,609	(384,039)	(158%)
Net income (loss) loss before provision for income taxes	(2,458,589)	(595,387)	(1,863,202)	313%
Provision for income taxes	-	-	-	NA
Net loss	$ (2,458,589)	$ (595,387)	$ (1,863,202)	313%

Operating Expenses

Our operating expenses consist of general and administrative expenses, research and development expenses and professional fees. Our research and development expenses primarily consist of consultants in regulatory, clinical development and CMC matters to prepare for the Phase 2 trials as well as maintenance fees for our patent portfolio plus lab material costs in connection with work for an NIH grant.

General and Administrative Expenses

Our general and administrative expenses for the years ended December 31, 2022 and 2021 were $1,098,848 and $496,667, respectively, representing an increase of $602,181, or 121%. The increase is primarily comprised of an increase of $0.1 million in stock-based compensation expenses and an increase of $0.3 million increase in payroll expenses.

Research and Development Expenses

For the years ended December 31, 2022 and 2021, we incurred research and development expenses of $391,730 and $209,047, respectively, representing an increase of $182,683 or 87%. Details of the research and development expenses are set forth in the table below:

	December 31		$	%
	2022	**2021**	**Change**	***Change***
Consultant	$ 86,802	$ 120,480	$ (33,678)	(28%)
Lab gas	13,871	$ 8,628	5,243	61%
Lab cell storage	62,197	$ 65,260	(3,063)	(5%)
CSC	3,800	$ -	3,800	100%
IP services	225,060	$ 14,679	210,381	1,433%
Total	**$ 391,730**	**$ 209,047**	**$ 182,683**	87%

The increase in research and development expenses is primarily due to an increase of $0.2 million in legal fees and maintenance costs related to the Company's patent portfolio.

Professional Fees

Professional fees for the years ended December 31, 2022 and 2021 were $827,581 and $133,282, respectively, representing an increase of $694,299, or 521%. The increase is primarily due to a greater accounting and legal services expenses in preparation for the initial public offering.

Other Income

For the years ended December 31, 2022 and 2021, we recognized $140,430 in other expense and $243,609 in other income, respectively. The other expense for the year ended December 31, 2022 was due to interest expense in the amount of $140,430 and other income for the year ended December 31, 2021 was due to gain on forgiveness of a PPP loan in the amount of $243,862, offset by interest expense of $253.

Liquidity

Sources of Liquidity and Capital

We are in our early stages of development and growth, without established records of sales or earnings. We will be subject to numerous risks inherent in the business and operations of financially unstable and early stage or emerging growth companies. We have not yet commercialized any products, and we do not expect to generate revenue from sales of any lead candidates for several years.

Cash totaled $0.1 million and $0.1 million as of June 30, 2023 and December 31, 2022, respectively. As of June 30, 2023 and December 31, 2022, we had an accumulated deficit of approximately $8.1 million and $6.1 million, respectively, and had a working capital deficit of $4.9 million and $3.7 million, respectively.

Historically, we have funded our operations from a series of cash advances from Chromocell Holdings, licensing arrangements, bridge loans and grants from the National Institutes of Health.

Starting in May 2021, we received a series of advances from Chromocell Holdings that were subsequently codified in the Contribution Agreement as an equity investment, pursuant to which, the Company issued 10,000,000 shares of Common Stock and 600,000 shares of Series A Preferred Stock to Chromocell Holdings in exchange for the assets contributed by Chromocell Holdings to the Company.

On February 4, 2022, the Company entered into the Investor Note, as amended from time to time, for $450,000. The Investor Note has an original issuance discount of $150,000, a maturity date of February 3, 2023, and accrues no interest. As of June 30, 2023, the debt discount was fully amortized. On February 27, 2023, the maturity date of the Investor Note was extended to May 15, 2023, in return for the payment of monthly interest of 2% on the full value, which shall accrue, and the holder of the Investor Note agreeing to settle the Investor Note in IPO shares. On June 23, 2023, we entered into a side letter with the holder of the Investor Note (the "June Investor Note Side Letter"), pursuant to which the Investor Note was further amended to extend the maturity date to August 15, 2023 and we issued to the Holder 50,000 shares of Common Stock. On August 17, 2023, we entered into the August Investor Note Side Letter, which further extended the maturity date to September 30, 2023 and we issued to the Holder 30,000 shares of Common Stock.

On December 6, 2022, the Company and Mr. Todd Davis, one of our directors, entered into the Director Note for $175,000. The Director Note has an original issuance discount of $75,000, and matures on December 31, 2023, or, if earlier to occur, upon the closing of an underwritten offering of securities resulting in at least $15 million in gross proceeds. Mr. Davis, as lender, has the right but not the obligation to subscribe to the underwritten offering by presenting the Director Note in whole or in part to purchase such securities as legal tender therefor, on a dollar-for-dollar basis based upon the offering price of such securities to the public. The Director Note bears no interest except in the case of certain events of default. As of June 30, 2023, there was an unamortized debt discount of $35,448.

On April 17, 2023, we entered into a bridge loan for working capital purposes, with various accredited investors, all of whom are pre-existing stockholders, in the aggregate principal amount of $393,808 (the "April Bridge Financing" and, together with the September Bridge Financing, the "Bridge Financings"). During the six months ended June 30, 2023, the Company received $166,903 in advances (the "Advances") prior to the close of the April Bridge Financing from certain of the participating investors. Such Advances accrued interest at a rate of eight percent (8%) per annum until close of the April Bridge Financing on April 17, 2023, for a total of $1,870 in aggregate interest on all Advances. The April Bridge Financing consists of senior secured convertible notes that have a maturity date of October 17, 2023. Such notes accrue interest on the unpaid principal amount at a rate of eight percent (8%) per annum and will automatically convert into shares of Common Stock in connection with the IPO at a twenty percent (20%) discount to the price per IPO Share (assuming an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus). The senior secured convertible notes issued in the April Bridge Financing are secured by a security interest in all of our assets (including our patents and intellectual property licenses). In connection with the April Bridge Financing, on April 17, 2023, we also entered into a securities purchase agreement with holders of the notes, pursuant to which we are required to file a registration statement within 180 calendar days after consummation of the IPO, providing for the resale of Common Stock received by holders of the notes upon conversion of such notes.

On August 3, 2023, we entered into the Holdings Side Letter to the Contribution Agreement. Pursuant to the Holdings Side Letter, upon closing of the IPO: (a) Chromocell Holdings will re-assume all $1.5 million in direct liabilities previously assumed by the Company in accordance with the Contribution Agreement, (b) Chromocell Holdings will waive the Company's obligations to make a cash payment in the amount of $0.6 million to Chromocell Holdings, and (c) in consideration thereof, we will issue to Chromocell Holdings 2,600 shares of Series C Preferred Stock.

The Series C Preferred Stock will have a liquidation preference of $1,000 per share. Holders of the Series C Preferred Stock will not be entitled to dividends, will have no voting rights other than as required by law, will be convertible into shares of Common Stock following the IPO at the holder's option, will convert into shares of Common Stock automatically if, following the IPO, the trading price of the Common Stock exceeds certain thresholds, and will be redeemable by the Company for cash. For more information, see "Description of Capital Stock–Series C Preferred Stock."

On September 1, 2023, we entered into the September Bridge Financing in the aggregate principal amount of $198,128. The September Bridge Financing consists of senior secured convertible notes that have a maturity date of March 1, 2024. Such notes accrue interest on the unpaid principal amount at a rate of eight percent (8%) per annum and will automatically convert into shares of Common Stock in connection with the IPO at a twenty percent (20%) discount to the price per IPO Share (shares, assuming an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus). The senior secured convertible notes issued in the September Bridge Financing are secured by a security interest in all of our assets (including our patents and intellectual property licenses). In connection with the September Bridge Financing, on March 1, 2023, we also entered into a securities purchase agreement with holders of the notes, pursuant to which we are required to file a registration statement within 180 calendar days after consummation of the IPO, providing for the resale of Common Stock received by holders of the notes upon conversion of such notes. Additionally, we entered into a subordination and intercreditor agreement, effective September 1, 2023, with the holders of the senior secured convertible notes issued in the April Bridge Financing, pursuant to which those notes and certain liens of the Company will be subordinated to the rights of the holders of the notes issued in the September Bridge Financing.

In connection with the September Bridge Financing, the Company and certain holders of the senior secured convertible notes issued in the April Bridge Financing and the September Bridge Financing agreed to waive certain prohibitions in order to permit the issuance of Series B Preferred Stock and Series C Preferred Stock and the shares of Common Stock issuable in connection with this IPO.

On , 2023, we entered into a securities purchase agreement with the Series B Investor pursuant to which (i) the Series B Investor agreed to purchase, upon close of the IPO and at our election, an aggregate of up to shares of Series B Preferred Stock for a purchase price of $1,000 per share, and (ii) in consideration therefor, we will re-issue out of our treasury stock, upon close of the IPO and regardless of whether we issue any shares of Series B Preferred Stock, an aggregate of Standby Shares to the Series B Investor. If we elect to sell shares of Series B Preferred Stock upon close of the IPO, we will file the Series B Certificate of Designation with the Secretary of State of the State of Delaware designating 5,000 shares of our authorized and unissued preferred stock as Series B Preferred Stock. The Series B Preferred Stock will have a liquidation preference of $1,000 per share, will have voting rights, will be convertible by the holder into shares of Common Stock, and will be redeemable by the Company for cash. Holders of our Series B Preferred Stock vote together with holders of our Common Stock on an as converted basis, assuming $4.50 per share of Common Stock, subject to the beneficial ownership limitations as described in the Series B Certificate of Designation. Notwithstanding the foregoing, so long as any shares of our Series B Preferred Stock are outstanding, the vote of the holders of a majority of the then-outstanding shares of our Series B Preferred Stock, voting separately as a single class, with one vote per share, shall be necessary for effecting or validating certain transactions, including (i) the authorization, creation or issuance of, any additional preferred equity, (ii) any alteration or change to the voting powers, rights, preferences or privileges of our Series B Preferred Stock so as to affect them adversely, (iii) the incurrence of indebtedness other than certain permitted indebtedness, or (iv) a merger or consolidation of us with or into another entity. In addition, holders of the Series B Preferred Stock will be entitled to cumulative, accruing dividends at the rate of ten percent (10%) per annum. Such dividends will be guaranteed for the first year after issuance and will be payable in cash upon redemption by the Company, and in shares of Common Stock upon conversion by the holders. In addition, pursuant to the Series B Securities Purchase Agreement, we are required to file a registration statement within 180 calendar days after consummation of the IPO, providing for the resale of the Standby Shares and shares of Common Stock issuable upon conversion of the Series B Preferred Stock, if issued. For more information, see "Description of Capital Stock–Series B Preferred Stock."

Future Funding Requirements

Our primary use of cash is to fund clinical development, operating expenses and repay accrued liabilities associated with initial public offering.

With respect to the Company's future expected operations expenses, the primary expense drivers will be research and development and management overhead, including costs of being a public company. Of these, it is expected that research and development will be the largest expense and comprise approximately $5.0 million to $6.0 million in the twelve months following the offering of IPO Shares pursuant to the IPO Prospectus, which will be utilized for the Company's escalation study and Phase II drug trial costs. We have based the research and development costs on current trial parameters and expectations on certain existing tax credits, and there is no certainty that the trial parameters or tax credits available to the Company will remain as they are, which could lead to changes in our research and development expenditures. Cash used to fund operating expenses is impacted by the timing of when we pay these expenses, as reflected in the change in our outstanding accounts payable, accrued expenses and prepaid expenses.

We expect to continue to incur significant and increasing expenses and operating losses in connection with our ongoing research and development activities. In addition, upon the closing of the IPO, we expect to incur additional costs associated with operating as a public company. As a result, we expect to incur substantial operating losses and negative operating cash flows for the foreseeable future.

Based on our current operating plan, we believe that the net proceeds from the IPO pursuant to the IPO Prospectus, together with our existing cash, will be sufficient to fund our operations and capital expenses through the end of 2024. However, we have based this estimate on assumptions that may prove to be incorrect, and we could exhaust our capital resources sooner than we expect.

We may also raise additional funding through strategic relationships, public or private equity or debt financings, credit facilities, grants or other arrangements. If such funding is not available or not available on terms acceptable to us, our current development plan and plans for expansion of our general and administrative infrastructure may be curtailed. If we raise additional funds through the issuance of preferred stock, convertible debt securities or other debt financing, these securities or other debt could contain covenants that restrict our operations. Any other third- party funding arrangement could require us to relinquish valuable rights.

The source, timing and availability of any future financing will depend principally upon market conditions. Funding may not be available when needed, at all, or on terms acceptable to us. Lack of necessary funds may require us to, among other things, delay, scale back or eliminate expenses including some or all of our planned development. There is substantial doubt about our ability to continue as a going concern.

Cash Flows

The following table summarizes our cash flows for the six months ended June 30, 2023 and 2022:

	For the Six Months Ended June 30, 2023	For the Six Months Ended June 30, 2022	$ Change	% Change
	(Unaudited)	(Unaudited)		
Net cash used in operating activities	$ (366,989)	$ (642,740)	$ 275,751	43%
Net cash used in investing activities	-	-	-	-
Net cash provided by financing activities	393,808	645,127	251,319	39%
Net increase in cash	$ 26,819	$ 2,387	$ 24,432	1,024%

The following table summarizes our cash flows for the year ended December 31, 2022 and 2021:

	December 31, 2022	December 31, 2021	$ Change	% Change
Net cash used in operating activities	(1,567,149)	(1,593,011)	25,862	(2%)
Net cash used in investing activities	-	-	-	-
Net cash provided by financing activities	1,622,223	1,593,011	29,212	2%
Net increase in cash	55,074	-	55,074	100%

Net Cash Used in Operating Activities

For the six months ended June 30, 2023, we incurred a net loss of $1,919,908, and net cash flows used in operating activities was $352,619. The cash flow used in operating activities was primarily due to a net loss of $1,919,908 offset by stock-based compensation expense of $599,559, a change in account payable and accrued expense of $548,297, share issuance cost associated with the extension of the bridge loan in the amount of $126,000 and a change in accrued compensation of $229,941.

For the six months ended June 30, 2022, we incurred a net loss of $644,506, and net cash flows used in operating activities was $642,740. The cash flow used in operating activities was due a net loss of $644,506, a change in account payable and accrued expense of $41,454 and a change in amortization of debt discount of $60,006, offset by a change to a security deposit in the amount of $99,694.

For the year ended December 31, 2022, we incurred a net loss of $2,458,589, and net cash flows used in operating activities was $1,567,149. The cash flow used in operating activities resulted from the net loss of $2,458,589, primarily offset by $110,146 in stock-based compensation expenses, $140,430 of debt discount amortization, an increase in accounts payable and accrued expenses of $413,603 and an increase in accrued compensation of $221,875.

For the year ended December 31, 2021, we incurred a net loss of $595,387, and net cash flows used in operating activities was $1,593,011. The cash flow used in operating activities was primarily due to a change in account payable and accrued expense of $827,703 and the forgiveness of the PPP loan in the amount of $241,793.

Net Cash (Used in) Provided by Investing Activities

The Company neither received nor used cash in investing activities during the six months ended June 30, 2023 and 2022, and for the years ended December 31, 2022 and 2021.

Net Cash Provided by Financing Activities

For the six months ended June 30, 2023, net cash flows provided by financing activities were $379,438 resulting from proceeds from related party loans.

For the six months ended June 30, 2022, net cash flows provided by financing activities were $645,127, primarily consisting of cash received from a bridge loan in the amount of $300,000 and an advance from Chromocell Holdings in the amount of $340,000.

For the year ended December 31, 2022, net cash flows provided by financing activities were $1,622,223, consisting of cash received from an advance by Chromocell Holdings in the amount of $800,050, cash transfers from Chromocell Holdings to the Company in the amount of $422,173 and total net proceeds from the issuance of two notes in the amount of $400,000.

For the year ended December 31, 2021, net cash flows provided by financing activities were $1,593,011, consisting of cash received from an advance by Chromocell Holdings in the amount of $1,099,950 and cash transfers from Chromocell Holdings to the Company in the amount of $493,061.

Off-Balance Sheet Arrangements

During the six months ended June 30, 2023 and 2022 and the years ended December 31, 2022 and 2021, we did not have, and we do not currently have, any off-balance sheet arrangements, as defined under applicable SEC rules.

Critical Accounting Estimates

The following discussions are based upon our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States.

The preparation of these financial statements requires management to make estimates, judgments and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures of contingencies. We continually evaluate the accounting policies and estimates used to prepare the financial statements. We base our estimates on historical experiences and assumptions believed to be reasonable under current facts and circumstances. Actual amounts and results could differ from these estimates made by management.

See Note 3 - Summary of Significant Accounting Policies to the accompanying financial statements for a detailed description of our significant accounting policies.

Income Taxes

We are subject to income taxes in the U.S. Significant judgment is required in determining income tax expense, deferred taxes and uncertain tax positions. The underlying assumptions are also highly susceptible to change from period to period. In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some or all the deferred tax assets will be realized. The ultimate realization of deferred taxes assets is dependent upon generation of future taxable income during the period in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and taxable income in carryback years and tax-planning strategies when making this assessment. There is currently significant negative evidence which contributes to our recording a valuation allowance against our deferred tax assets due to cumulative losses since inception.

Although we believe our assumptions, judgments, and estimates are reasonable, changes in tax laws or our interpretation of tax laws and the resolution of any tax audits could significantly impact the amounts provided for income taxes in our consolidated financial statements. The effect on deferred tax assets and liabilities from a change in tax rates is recognized in income in the period that includes the enactment date. Adjustments to income tax expense, to the extent we establish a valuation allowance or adjust the allowance in a future period, could have a material impact on our financial condition and results of operations.

The critical accounting estimates below do not represent a material estimate in the preparation of our financial statements.

Recently Issued and Adopted Accounting Pronouncements

In December 2019, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update, or ASU, No. 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes, or ASU 2019-12, 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. This guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020, with early adoption permitted. The adoption of ASU 2019-12 did not have a material effect on the Company's financial statements.

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments - Credit Losses (Topic 326) Measurement of Credit Losses on Financial Instruments (ASU 2016-13), which requires an entity to utilize a new impairment model known as the current expected credit loss (CECL) model to estimate its lifetime "expected credit loss" and record an allowance that, when deducted from the amortized cost basis of the financial assets and certain other instruments. ASU 2016-13 requires a cumulative effect adjustment to the balance sheet as of the beginning of the first reporting period in which the guidance is effective. In November 2019, the FASB issued ASU 2019-10, Financial Instruments—Credit Losses (Topic 326), Derivatives and Hedging (Topic 815) and Leases (Topic 842): Effective Dates, which defers the effective date of ASU 2016-13 to fiscal years beginning after December 15, 2022 for all entities except SEC reporting companies that are not smaller reporting companies. ASU 2016-13 became effective for the Company beginning January 1, 2023. The adoption of this ASU did not have a material effect on the Company's financial statements.

In August 2020, the FASB issued ASU 2020-06, which simplifies the guidance on the issuer's accounting for convertible debt instruments by removing the separation models for convertible debt with a cash conversion feature and convertible instruments with a beneficial conversion feature. As a result, entities will not separately present in equity an embedded conversion feature in such debt and will account for a convertible debt instrument wholly as debt, unless certain other conditions are met. The elimination of these models will reduce reported interest expense and increase reported net income for entities that have issued a convertible instrument that is within the scope of ASU 2020-06. Also, ASU 2020-06 requires the application of the if-converted method for calculating diluted earnings per share and treasury stock method will be no longer available. ASU 2020-06 is applicable for fiscal years beginning after December 15, 2022, with early adoption permitted no earlier than fiscal years beginning after December 15, 2020. The Company does not intend to early adopt, and continues to evaluate the impact of the provisions of ASU 2020-06 on its consolidated financial statements.

The FASB issues ASUs to amend the authoritative literature in ASC. There have been several ASUs to date, including those above, that amend the original text of ASC. Management believes that those issued to date either (i) provide supplemental guidance, (ii) are technical corrections, (iii) are not applicable to us or (iv) are not expected to have a significant impact on our financial statements.

Other accounting standards that have been issued or proposed by FASB and do not require adoption until a future date are not expected to have a material impact on the consolidated financial statements upon adoption. Management does not believe that any other recently issued, but not yet effective, accounting standard if currently adopted would have a material effect on the accompanying financial statements.

BUSINESS

Overview

We are a clinical-stage biotech company focused on developing and commercializing new therapeutics to alleviate pain. Our clinical focus is to selectively target the sodium ion-channel known as "NaV1.7", as well as other receptors in the NaV family. NaV1.7 has been genetically validated as a pain receptor in human physiology. Genetic studies have shown that families with a certain inherited NaV1.7 modulation consistently show a pathology of not feeling pain. A strong correlation between such inherited NaV1.7 modulation and EM patients who suffer from burning pain in their hand and feet was confirmed in a separate study that was reported in the Journal of Clinical Investigation. The study assessed the pattern of pain, natural history, somatosensory profile, psychosocial status and olfactory testing in patients with primary inherited erythromelalgia with mutations of SCN9A, the gene encoding Na(v)1.7. All subjects reported pain and heat in the extremities (usually feet and/or hands), with pain attacks triggered by heat or exercise and relieved mainly by non-pharmacological maneuvers such as cooling. A NaV1.7 blocker is a chemical entity that modulates the structure of the sodium-channel in a way to prevent the transmission of pain perception to the CNS. Our goal is to develop a novel and proprietary class of NaV blockers that target the body's peripheral nervous system, initially EM, a rare condition that primarily affects the feet and, less commonly, the hands (extremities). It is characterized by intense, burning pain of affected extremities, severe redness (erythema), and increased skin temperature that may be episodic or almost continuous in nature.

According to Mordor Intelligence, the global pain management market was valued at approximately $67 billion in 2021, and it is expected to have revenues of $89 billion in 2027, with a CAGR of 4.65% over the forecast period. Also, according to Mordor Intelligence, the United States has the largest market for pain management pharmaceuticals and Asia-Pacific is the region showing the strongest growth. North America holds the largest share in the pain management market, with the United States being the most significant contributor to its revenue. According to data published by the Centers for Disease Control and Prevention ("CDC"), in 2019, 20.4% of adults had chronic pain, and 7.4% of adults had chronic pain that had limited work and daily activities frequently. Additionally, according to the CDC, chronic pain increased with age, and the highest level was reported in patients aged 65 years and above. The prescription pain management market in the United States is still largely dominated by opioid analgesics. Opioid analgesics decrease the perception of pain by stimulating a range of opioid receptors that modulate pain signals. The most widely used opioid analgesics, including morphine, fentanyl and hydromorphone, act primarily through the activation of mu opioid receptors in the CNS. However, because of the wide distribution of mu opioid receptors throughout the brain, morphine and other mu opioid analgesics also trigger a characteristic pattern of adverse side effects, in particular severe abuse and addiction.

The global pain market reflects total revenues of drugs mitigating different types of pain, such as backpain, osteoarthritis, post-operative pain and various orphan diseases with pain symptoms. Our current research is focused on EM; correspondingly, our commercial efforts are targeting the potential for EM therapeutics within the overall pain market. According to studies quoted by The Erythromelalgia Association, estimates of the incidence rate for EM vary from 1.3 to 15 per 100,000 persons, reflecting a potential EM patient population from 5,000 to 50,000 in the U.S. Our lead compound, CC8464, could possibly have applications in pain mitigation outside of EM, but neither biological nor clinical studies have provided sufficient data to enable meaningful predictions on the probability of an expanded range of indications.

CC8464 is designed to address both the underlying condition and mitigate the burning pain symptoms that EM patients experience by blocking the NaV1.7 sodium channel. Genetic studies presented in the Journal of Clinical Investigation have established a correlation between particular mutation in the NaV1.7 gene and the occurrence of EM where patients suffer from burning pain in their hand and feet. The study assessed the pattern of pain, and other criteria in patients with primary inherited erythromelalgia with mutations of SCN9A, the gene encoding Na(v)1.7. All subjects reported pain and heat in the extremities (usually feet and/or hands), with pain attacks triggered by heat or exercise and relieved mainly by non-pharmacological maneuvers such as cooling. Based on the correlation between the mutations and frequency of EM occurrence, we believe CC8464 has the potential to address the underlying condition and mitigate the burning pain symptoms that patients experience. The chemical characteristics of CC8464 restrict its entry into the CNS and limit its effect to the NaV1.7 receptors in the peripheral nervous system, which consists of the nerves outside the brain and spinal cord. Activation of other receptors in the CNS can result in side effects, including addiction and other psychiatric disorders. Since CC8464 is designed to modulate pain signals without activation of receptors in the CNS, it is not expected to produce psychiatric side effects. Based on its characteristics, preclinical studies (described below) and the Phase 1 study we have completed to date, we believe that our lead compound CC8464, if approved, could become an attractive option for both patients and physicians as a treatment for moderate-to-severe pain in EM.

We have observed some rashes during the trial for which we developed a mitigation strategy. We plan to proceed with our clinical trials in 2023, focusing on a study to evaluate this rash mitigation strategy and a Phase 2a proof-of-concept study assessing the potential efficacy of CC8464 in EM patients with a genetic disposition. We are evaluating doing the rash mitigation and our proof-of-concept study in a different national jurisdiction acceptable to the FDA, to take advantage of beneficial tax credits or lower costs. One example is Australia, which has a 43.5% tax credit for clinical expenses in Australia.

If approved, we believe that CC8464 could provide pain and symptom relief for EM patients CC8464 is currently the only compound that we have advanced into clinical development.

In addition, there is scientific evidence that the NaV1.7 receptor is present on the cornea and may be a viable biological target for treating eye pain. Eye pain may occur with various conditions including severe dry eye disease, trauma and surgery. Existing therapies for eye pain (such as steroids, topical non-steroidal anti-inflammatory agents, lubricants, local anesthetics) are limited in their effectiveness and/or limited in the duration that they may be prescribed because of safety issues. We intend to explore the viability of developing CC8464 as a topical agent for the relief of eye pain. A potential advantage of this approach is that topical administration of CC8464, is unlikely to lead to any hypersensitivity or skin reactions like what was noted with systemic administration of CC8464 because the systemic absorption from a topical administration would extremely limited.

We may further expand our pipeline with other internal or external compounds in the future, but all other internally discovered compounds are pre-clinical and no commercial discussions about in-licensing have been initiated to date.

Our Strategy

We are a clinical-stage pharmaceutical company focused on non-opioid pain blockers in the NaV space. Our development programs are initially designed to address the underlying condition and mitigate the burning pain symptoms in EM. Based on genetic studies, several academic and clinical scientists have suggested that NaV1.7 could be a promising target to address EM. Studies presented in the Journal of Clinical Investigation show a correlation between a genetic mutation (SCN9A) and the expression of the disease phenotype in EM patients. The study assessed the pattern of pain, natural history, somatosensory profile, psychosocial status and olfactory testing of 13 subjects with primary inherited erythromelalgia with mutations of SCN9A, the gene encoding Na(v)1.7. All subjects reported pain and heat in the extremities (usually feet and/or hands), with pain attacks triggered by heat or exercise and relieved mainly by non-pharmacological maneuvers such as cooling. Quantitative sensory testing revealed significantly increased detection thresholds for cold and warm stimuli at affected, compared to unaffected sites of the body. By contrast, significantly decreased cold and heat pain thresholds were found at unaffected sites of the body. The NIH database of rare diseases specifically mentions the genetic causation of EM in patients with the SCN9A gene, which encodes for the NaV1.7 sodium channel. Our first aim is to assess CC8464's potential as a drug for EM patients that have a genetic disposition to develop the phenotype.

The therapeutic benefit of CC8464 will, among other factors, be determined by its potency and selectivity. The potency reflects the compound's effect in blocking the NaV1.7 channel. The selectivity is the absence of effects in blocking other, similar channels (e.g. NaV1.5) that could cause undesirable side effects. We conducted *in vitro* and *in vivo* studies described in more detail below that showed both a high potency and selectivity of CC8464. While positive results of *in vitro* and *in vivo* studies do not necessarily translate into human studies, we believe that the consistency of results in various *in vivo* models (rat, mouse, mini-pig) supports the projection of a potential positive outcome in clinical studies.

CC8464 is a potent inhibitor of the inactivated state of the human NaV1.7. We measured with our electrophysiology equipment the difference in affinity between cells with and without CC8464 added *in vitro*. The results showed that the compound preferentially inhibits the inactivated state of the channel with 1000-fold higher affinity as compared to the resting state. Injury or chronic inflammation is associated with persistent neuronal depolarization that shifts hNaV1.7 channels to the inactivated state. Therefore, CC8464

may preferentially affect injured or inflamed tissues while having minimal effect on the hNaV1.7 channels in uninjured/healthy tissues. CC8464 displays high target selectivity and a favorable in vitro cardiac safety profile (*in vitro* electrophysiology experiments where we measured differences between cells with and without CC8464 added showed a>1,000-fold selectivity for human NaV1.7 over human NaV1.5, hERG and human CaV1.2 ion channel receptors). Further, a canine cardiovascular and respiratory *in vivo* study where vital signs of canines were monitored after administering CC8464 showed no adverse findings. CC8464 demonstrated minimal activity against a broad array of potential targets and off-targets with only one confirmed IC50 less than 10 μM (κ-opioid receptor agonist). At predicted therapeutic doses, there is >100-fold selectivity for hNaV1.7 over the κ-opioid receptor. In vivo, CC8464 selectivity may be augmented by a lack of exposure in the central nervous system. In an *in vivo* tissue distribution study in rats all of the tissues in the central nervous system did not have measurable concentrations of CC8464-derived radioactivity at any time point post-dose. Behavioral effects potentially attributable to the CNS have not been observed in animals. There were no CC8464 related effects on any parameter in the functional observational battery evaluation conducted as a part of the 28-day repeat dose study in rats. In a streptozotocin-induced diabetic neuropathy model, wherein rats self-administered CC8464, there was no increase in intake in up to 8 weeks of dosing. There was no evidence of motor/balance impairments on observational measurements in the foot-fault test, where motoric/balance impairments are monitored *in vivo* after administering CC8464. Also, no immobility or lethargy observations were reported in cage side observations in any of the nonclinical efficacy studies performed. CC8464 has shown statistically significant efficacy in reversing pain in several nonclinical neuropathic and inflammation induced pain models, where motoric/balance impairments were monitored *in vivo* by comparing results from animal cohorts and preventing the emergence of neuropathic pain in neuropathic pain models. CC8464 has been shown to reverse thermal and mechanical hyperalgesia, spontaneous pain and tactile allodynia in these models. The reversal of hyperalgesia endpoints follows the pharmacokinetics of CC8464 in plasma. The reversal of tactile allodynia in rats was more gradual and disassociated from the pharmacokinetics, but the therapeutic effect is comparable to the effect on hyperalgesia endpoints and is sustained for some time after the cessation of treatment. There was no tachyphylaxis observed on efficacy parameters after repeated dose administration in the partial sciatic nerve ligation ("PSNL") and streptozotocin-induced diabetic neuropathy models.

The Phase 2a results will have significance beyond EM and provide important insights about NaV1.7 as a potential target to find novel pain medications as an alternative to opioids, the continuing primary standard of care in analgesics. Despite the societal cost of opioids, no fundamental commercially available breakthroughs have been achieved in pain management over the past decades. We believe that positive results from the Phase 2a study could not only act as support for CC8464's potential in EM but may also provide guidance of its potential for other indications of peripheral neuropathic pain. The key elements of our strategy to achieve our mission are:

- ***Advance the development of our lead candidate, CC8464, towards FDA approval for treating EM.*** Based on its pre-clinical profile, the target validation and trends seen with other NaV1.7 blockers in clinical studies, if approved by the FDA, we believe that CC8464 has the potential to become a drug for treatment of EM patients, potentially delivering meaningful clinical benefits over the currently available standard of care.

- ***Conduct in vivo and in vitro studies of CC8464 for the treatment of eye pain.*** According to a presentation at the Association for Research in Vision and Ophthalmology, with the abstract published in the publication, Investigative Ophthalmology and Visual Science in June 2020, there is evidence that the NaV1.7 receptor is present on the cornea and may be a viable biological target for treating eye pain. As such, we intend to conduct in vivo and in vitro studies on the treatment of eye pain with CC8464 as a topical agent.

- ***Leverage our differentiated research and discovery approach to expand our pipeline.*** We plan to build a pipeline of potential pain blockers acting against sodium-channels related to NaV1.7. Pain modulation is complex, and a multitude of physiological mechanisms are involved in transmitting pain signals. Other than NaV1.7, we believe that several related sodium channels, e.g., NaV1.8 or NaV1.6, may be involved in pain sensation. While NaV1.7 is the most validated pain receptor, we believe that blockers against other sodium channels may complement CC8464 as our primary pain blocking candidate.

- ***Build a leading, fully integrated pharmaceutical company to maximize the clinical impact and value of our pipeline and deliver value to stockholders.*** We plan to build an experienced team to rapidly advance compounds in a capital-efficient manner. We intend to retain the commercialization rights to lead compounds; however, we may opportunistically enter into strategic collaborations in certain geographic or clinical settings to maximize the value of our pipeline.

We believe our strategy will allow us to minimize risk and expenses by maintaining an initial focus on CC8464 and EM.

Our Lead compound: CC8464 for the Treatment of EM

CC8464 is our lead compound for the treatment of EM.

Background on EM

EM is a condition characterized by episodes of pain, redness, and swelling in various parts of the body, particularly the hands and feet. These episodes are usually triggered by increased body temperature, which may be caused by exercise or entering a warm room. Ingesting alcohol or spicy foods may also trigger an episode. Wearing warm socks, tight shoes, or gloves can cause a pain episode so debilitating that it can impede everyday activities such as wearing shoes and walking. Pain episodes can prevent an affected person from going to school or work regularly. Strong cases are debilitating for patients and suicidal tendencies in these patients emphasize the urgent medical need in this field.

The signs and symptoms of EM typically begin in childhood, although mildly affected individuals may have their first pain episode later in life. As individuals with EM get older and the disease progresses, the hands and feet may be constantly red, and the affected areas can extend from the hands to the arms, shoulders and face, and from the feet to the entire legs.

EM is often considered a form of peripheral neuropathy because it affects the peripheral nervous system, which connects the brain and spinal cord to muscles and to cells that detect sensations such as touch, smell and pain.

Prevalence

According to Transparency Market Research:

- EM is a rare condition that primarily affects feet and hands. It is characterized by intense, burning pain of affected extremities, severe redness (erythema), and increased skin temperature that may be episodic or almost continuous in nature.

- The specific cause of EM remains unknown. EM is caused by a mutation of the NaV1.7 gene and may also result of vasomotor abnormalities or dysfunction in the normal narrowing and widening of the diameter of certain blood vessels, leading to abnormalities of blood flow to the extremities.

- Females are more affected than males. Disorder onset occurs most commonly in middle age; however, associated symptoms may develop at any age. Terminology is not uniform in EM, but certain terms have gained a certain level of general acceptance. With this caveat, EM is of two types: primary EM and secondary EM. Primary EM is caused by a genetic mutation, while secondary EM is likely caused by another disease, such as diabetes or myelodysplasia. Also relevant is the difference between EM cases where a known genetic variation has at least partially caused the illness and cases where it is unknown what underlying genetic variation, if any, caused EM.

Existing Treatment Options

The current standard-of-care for patients with EM is limited to symptom management. However, according to a case report published in the Journal of Pain Medicine, more than 50% of EM patients report that over-the-counter medications did not effectively address the symptoms. In severe cases, opioids may be the only available treatment option and are accompanied by well-known risks and liabilities. Further, there is a lack of guidelines available on how it should be optimally managed. Current EM treatments are regarded as ineffective, risky, or both.

CC8464's Unknown Mechanism of Action

The mechanism of action for EM is unknown. According to the National Institutes of Health, mutations of NaV1.7 are a leading cause for EM but it remains unclear why this defect leads to the observed phenotype. It is also unclear whether other sodium-channels or causes other than genetic mutations influence the development of EM.

Our initial focus for CC8464 is evaluating its potential therapeutic benefit to treat primary EM patients with a genetic mutation in the SCN9A gene. While we do not know the mechanism of action, we believe the empirical correlation between the genetic mutation and disease is a hypothesis to develop CC8464 as a potential drug to mitigate EM for patients with a genetic disposition. We may also evaluate CC8464 for secondary EM patients as we continue our study, although our initial focus is on CC8464's potential therapeutic benefit to primary EM patients.

CC8464 Current Study Results

CC8464 has undergone a Phase 1 study. The study was not powered for statistical significance and no p-values are available. The result showed that CC8464 has a good overall tolerability but may cause rashes in certain patients. The occurrence of rashes is not uncommon in the class of molecules to which CC8464 belongs. A dose-escalation-regime is a standard method used in pharmaceutical drug development to mitigate rashes as a side effect. We believe that a dose-escalation-regime could reduce the occurrence of rashes to a tolerable level for CC8464. We plan to conduct a dose-escalation-study to potentially validate the concept and establish a prescription regime for patients that minimizes the risk of rashes. Even though the FDA has in the past approved drugs that listed rashes as a potential side effect, we do not know if CC8464 will be approved by the FDA (or any foreign authority) in view of its potential to cause rashes.

Currently a total of 207 healthy subjects have been dosed in four Phase 1 studies (CC8464-1001, CC8464-1002, CC8464-1003, and 1807-CL-0102) with study treatment. The studies were sponsored by Chromocell Holdings. A Phase 1 study investigating safety, tolerability and pharmacokinetics of single and multiple ascending doses of CC8464 in healthy volunteers has been conducted and the data base has been locked (Study Protocol CC8464-1001). CC8464-1002 and CC8464-1003 were relative bioavailability studies in healthy volunteers to support new formulations. CC8464 was, in general, well tolerated in these Phase 1 studies (CC8464-1001, CC8464-1002, CC8464-1003) when administered to healthy volunteers as a single dose up to 1800 mg or over 14 days of once a day dosing up to 1200 mg. Skin rash, the only clinically relevant safety finding, was seen in a total of six (6) out of the 159 subjects dosed with CC8464 in these Phase 1 studies (CC8464-1001, CC8464-1002, CC8464-1003).

Following clinical completion of the studies CC8464-1001, CC8464-1002, and CC8464-1003, the drug-drug interaction (DDI) study 1807-CL-0102 was initiated to examine the effect of CC8464 on the PK and Pharmacodynamics (PD) of warfarin, a CYP2C9 substrate. This was the first study with a BID dosing regimen (CC8464 400 mg BID daily for two weeks) which had greater accumulation than expected. Thirteen out of eighteen (13/18) subjects dosed with CC8464 reported rash in this open label drug-drug interaction study. Clinical presentation and resolution of the rashes reported in study 1807-CL-0102 were consistent with the rash cases from CC8464-1001 except for a single case of a severe skin reaction requiring IV corticosteroid therapy (SAE). All reported skin rashes in study 1807-CL-0102 resolved within days of treatment discontinuation without sequalae.

Overview of Studies – CC8464

Study ID/ Location	Study Title	Study Design	Dosing Regimen	Study Population	FPFV*	Planned Enrollment	Subject exposure
CC8464-1001 (USA)	A Randomized, Double Blind, Placebo Controlled, Single Ascending Dose and Multiple Ascending Dose Study to Evaluate the Safety, Tolerability, and Pharmacokinetics of Oral Doses of CC8464 in Normal Healthy Subjects with Food Effect Assessment	SAD/MAD	SAD: 30, 120, 300, 600, 1200, 1800, or 2400 mg QD on Day 1. MAD: 120, 300, 600, 1200, 1800 or 2400 mg QD on Days 1-14.	Healthy Volunteers	September 13, 2016	206	125
CC8464-1002 (USA)	A Phase 1 Crossover Study to Assess the Relative Bioavailability of CC8464 following a Single Dose of Melt Granulation Capsule Compared to a Single Dose of Encapsulated Suspension in Normal Healthy Subjects with a Food Effect Assessment	Cross-over	200 mg Melt Granulation Capsule (fed and fasted) vs 200 mg Suspension Capsule (fasted)	Healthy Volunteers	July 31, 2017	24	24
CC8464-1003 (USA)	A Single-Dose, Open-Label, Five-Period, Randomized, Crossover Study to Compare the Relative Bioavailability and Dose Proportionality Between Two Formulations and 3 Dosage Strengths of CC8464 in Healthy Volunteers	Cross-over	50 mg, 100 mg and 400 mg of CC8464 Melt Granulation Tablet (Fed and Fasted) vs 2x200 mg of Melt Granulation Capsules	Healthy Volunteers	February 5, 2018	40	40
1807-CL-0102 (USA)	A Phase 1 Study to Evaluate the Effect of Multiple Doses of CC8464 (ASP1807) on the Pharmacokinetics and Pharmacodynamics of Warfarin in Healthy Subjects	Drug-Drug Interaction	Single doses of 5mg Warfarin tablets will be taken on days 1 and 15. 400mg of CC8464 BID will begin on Day 8 and continue until 6 days after the second dose of Warfarin is taken, for a total of 14 days	Healthy Volunteers	May 16, 2018	18	18

* FPFV = first patient first visit

CC8464 Phase 2a Trials

Genetic studies have established a correlation between a mutation in the SCN9A gene and the expression of the EM phenotype in EM patients. Our initial focus in the development plan for CC8464 is assessing its therapeutic use for EM patients with such genetic disposition. We plan to conduct two key studies as part of our Phase 2a clinical trials. First, we will conduct a dose escalation study ("DES") with healthy volunteers, where we determine the maximum tolerated dose ("MTD") for CC8464 and the pace of increasing the dosage towards MTD and minimal risk of rashes. Second, we will conduct a proof of concept ("POC") study, where we induce mild to moderate flares by exposing patients' hands to cold water and record the self-assessment of patients regarding perception of pain on the 1-10 pain scale. The POC will be conducted as a double-blinded, placebo-controlled study with 20 patients.

Our Addressable Market

Based on a study published in the *International Journal of Vascular Medicine*, our lead product for the treatment of EM, CC8464, may be relevant for approximately 50,000 patients in the US today. Similarly, according to studies quoted by the Erythromelalgia Association, estimates of the incidence rate for EM vary from 1.3 to 15 per 100,000 persons, reflecting a potential EM patient population up to 50,000 in the U.S.

According to Transparency Market Research, Key Drivers of Global Erythromelalgia Treatment Market include:

- Increase in number of patients with EM, strong product pipeline, and increasing research and development activity for developing new innovative drugs for treatment of EM are likely to drive the EM market during the forecasted period. In addition, high demand for disease specific novel treatment to the patients as quickly as possible is enhancing the growth of the market.

- According to the National Organization for Rare Disorders, the prevalence rate of EM is approximately 1.3 people in every 100,000 people in the U.S.
- On the other hand, limited treatment options and low healthcare budget in some developing countries are likely to restrain the growth of the market.

While we have not conducted an analysis nor can we point to studies which indicate the incidence of EM in other countries, we have issued patents (as set forth in greater detail below) in countries representing an additional population of approximately 4.2 billion people.

Our Lead Drug Candidate and Pipeline

We intend to focus our efforts on the development of CC8464, our lead compound, towards approval in the United States and other jurisdictions. While CC8464 is the focus of our efforts, we may also allocate future resources towards the discovery and development of other compounds that could potentially modulate NaV1.7 or related sodium-channels. We believe that these molecules could represent alternatives in case we encounter challenges in the further development of CC8464 or, in particular, if blocking channels other than NaV1.7 (e.g., NaV1.8) become a complementary therapeutic to CC8464. Pain perception is complex and, given its essential function for human physiology, modulated through a variety of receptors. Hence, we believe that different NaV blockers may provide an additive or even synergistic effect on patients with neuropathic pain.

CC8464's FDA Orphan Drug Designation

We are considering submitting a request to the FDA for Orphan Drug Designation, which could lead to approval for such designation. Orphan Drug Designation provides for a seven-year window of exclusivity and potential 25% tax credit on qualified clinical trials, as well as reduced FDA review periods and regulatory fees. We may apply for similar orphan drug designations in additional jurisdictions, including Europe and Japan, as well as additional regulatory classifications, such as FDA Breakthrough Therapy Designation, that confer an advantage during development. As of the date of this prospectus, we have not submitted an application for orphan drug designation for CC8464.

CC8464 Manufacturing

We plan to manufacture the clinical and eventual commercial supply through CROs in the U.S. and potentially other jurisdictions. We have rights to two proprietary methods to produce CC8464. We have not yet decided which production process we will use for subsequent clinical trials and eventual commercial supply, but both appear suitable for further use and optimization.

Both manufacturing processes employ common methods of organic synthesis used in the production drug substance. We do not intend to file patents for these processes but will keep the detailed protocols (e.g. the selected crystallization solvent or the particular salt) as trade secrets.

We do not produce drug substance in house. External CROs have produced enough drug substance (based on both processes) to conduct the planned Phase 2a trials.

Intellectual Property

Protection of our intellectual property is an important part of our business. We seek patent protection in the United States and in other countries for our inventions and discoveries, and we develop and protect our key know-how and trade secrets relating to our platform technology and the products we are developing using our platform.

We have adopted a strategy of seeking patent protection in the United States and in other jurisdictions globally that we deem appropriate with respect to certain of our technologies relating to our products and process. As of February 11, 2022, we have received an issued patent from the USPTO directed to the composition of matter and use of CC8464. We have also obtained patents in the E.U. (Germany, France) Japan, China and other relevant markets (Mexico, Canada, Thailand, Indonesia, Philippines). Our patent for CC8464 will expire in 2035. The Company owns the patent and has not licensed any portion to third parties. In addition, we have a pending patent application in India. While the eventual issuance of a patent in India cannot be guaranteed, we believe that we have a good chance to obtain comprehensive composition of matter protection for CC8464 during 2023.

In addition to patents and licenses, we rely on trade secrets and know-how to develop and maintain technologies and methods that provide us a meaningful competitive advantage. However, trade secrets can be difficult to defend and maintain. We seek to protect our proprietary technology and processes, and maintain ownership of certain technologies, in part, through confidentiality agreements and invention assignment agreements with our employees, consultants and commercial partners.

Our Competition

The biotechnology and pharmaceutical industries are highly competitive. Several pharmaceutical companies that are developing either topical applications for EM or other molecules that modulate NaV1.7 and therefore have the potential to mitigate EM. These companies and new entrants may potentially compete with our products in the future with novel delivery technologies. To the best of our knowledge, CC8464 is currently the most advanced NaV1.7 blocker in clinical development because other programs that modulate NaV1.7 are in pre-clinical development, which makes CC8464 more advanced in comparison as CC8464 has entered clinical trials and completed a Phase 1 study. However, we may be unaware of unpublished development efforts in the NaV1.7 space. The market exclusivity associated with a potential future Orphan Drug Designation plus the CC8464 market exclusivity associated with our issued patent are key elements of our commercialization strategy; however, we have not currently applied and may not receive orphan drug designation for CC8464. Competition in this space will remain strong and we do not know if we will be successful to obtain orphan designation from the FDA, encounter challenges to our issued patents and continue to advance CC8464 throughout clinical development towards approval.

In connection with this offering, we have entered into a side letter with Chromocell Holdings, pursuant to which Chromocell Holdings agreed not to (i) directly or indirectly engage in the business of owning, licensing, developing, marketing, manufacturing, producing, selling or distributing products, technologies, therapies, or services in any way related to our business, including all patents, pre-clinical and Phase I study results and data, and trade secrets related to the CC8464 compound, transferred by Chromocell Holdings to us further to the Contribution Agreement, (ii) directly or indirectly, hire, engage or employ (as an employee, consultant or otherwise) any of our employees; provided that Chromocell Holdings shall not, directly or indirectly, prevent any of our employees from serving on the board of directors of Chromocell Holdings, and (iii) through any director or officer of Chromocell Holdings, directly or indirectly, solicit for employment or the engagement of services of any of our employees or induce or attempt to induce any of our employees to leave his or her employment with us, or in any way intentionally interfere with the employment relationship between any of our employees and us, for the purpose of employing or engaging the services of such employee or soliciting such employee to become an employee or consultant of Chromocell Holdings or any other person.

Our Facilities

Our office is located at 4400 Route 9 South, Suite 1000, Freehold, NJ 07728. We are considering lab options commensurate with the start of the Phase II trials and dose escalation study.

Employees and Human Capital Resources

As of December 31, 2022, we had three full-time employees and four consultants on a part-time basis. None of our employees is subject to a collective bargaining agreement or represented by a trade or labor union. We consider our relationship with our employees to be good.

Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing and integrating our existing and additional employees. The principal purposes of our equity incentive plans are to attract, retain and motivate selected employees, consultants and directors through the granting of stock-based compensation awards and cash-based performance bonus awards.

In addition, we have a three person Scientific Advisory Board ("SAB") led by Dr. Stephen Waxman, who is the Bridget M. Flaherty Professor of Neurology and of Neuroscience and the Director of the Center For Neuroscience and Regeneration Medicine at Yale University School of Medicine.

Legal Proceedings

From time to time, we may be involved in legal proceedings arising in the ordinary course of our business. We are not presently a party to any legal proceedings that, in the opinion of management, would have a material adverse effect on our business. Regardless of outcome, litigation can have an adverse impact on us due to defense and settlement costs, diversion of management resources, negative publicity and reputation harm, and other factors.

Government Regulation

The FDA and other regulatory authorities at federal, state and local levels, as well as outside the United States, extensively regulate, among other things, the research, development, testing, manufacture, quality control, import, export, safety, effectiveness, labeling, packaging, storage, distribution, recordkeeping, approval, advertising, promotion, marketing, post-approval monitoring and post-approval reporting of drugs and biologics. We, along with our vendors, CROs, clinical investigators, clinical trial sites and CMOs, will be required to navigate the various preclinical, clinical, manufacturing and commercial approval requirements of the governing regulatory agencies of the countries in which we wish to conduct studies or seek marketing approval of compounds. The process of obtaining regulatory approvals of drugs and biologics and ensuring subsequent compliance with appropriate federal, state, local and foreign statutes and regulations requires the expenditure of substantial time and financial resources.

In the United States where we are initially focusing our drug commercialization, we believe compounds, as small molecule drugs, would be regulated as new drugs rather than biologics. The FDA regulates new drug products under the Federal Food, Drug, and Cosmetic Act, as amended (the "FDCA") and its implementing regulations. New drug products are also subject to other federal, state and local statutes and regulations. If we fail to comply with applicable FDA or other requirements at any time with respect to product development, clinical testing, approval or any other regulatory requirements relating to product manufacture, processing, handling, storage, quality control, safety, marketing, advertising, promotion, packaging, labeling, export, import, distribution, or sale, we may become subject to administrative or judicial sanctions or other legal consequences. These sanctions or consequences could include, among other things, the FDA's refusal to approve pending applications, issuance of clinical holds for proposed or ongoing studies, suspension or revocation of approvals, warning or untitled letters, product withdrawals or recalls, product seizures, relabeling or repackaging, total or partial suspensions of manufacturing or distribution, injunctions, fines, civil penalties or criminal prosecution.

Compounds must be approved for therapeutic indications by the FDA before they may be marketed in the United States. For new drug products regulated under the FDCA such as our lead compound, a sponsor must submit an NDA to the FDA for review and approval. The NDA review and approval process may take multiple years and involves the following steps:

- completion of extensive preclinical studies in accordance with applicable regulations, including studies conducted in accordance with GLP requirements;
- completion of the manufacture, under cGMP conditions of the drug substance, drug product, and labeling and packaging that the sponsor intends to use in human clinical trials along with required analytical and stability testing;
- submission to the FDA of an IND, which must become effective before clinical trials may begin and must be updated annually and amended when certain changes are made;
- approval by an institutional review board ("IRB") or independent ethics committee ("IEC") at each clinical trial site before each trial may be initiated;
- performance of adequate and well-controlled clinical trials in accordance with applicable IND regulations, GCP requirements, including informed consent, financial disclosure by investigators and other clinical trial-related regulations, to establish maximum tolerable dose and efficacy of the investigational product for each proposed indication and other condition of use;
- preparation and submission to the FDA of an NDA;
- a determination by the FDA within 60 days of its receipt of an NDA to file the application for review;
- satisfactory completion of one or more FDA pre-approval inspections of the manufacturing facility or facilities where the drug will be produced to assess compliance with cGMP requirements to assure that the facilities, methods and controls are adequate to preserve the drug product's identity, strength, quality and purity;
- satisfactory completion of FDA inspection of select clinical trial sites involved in conducting pivotal studies that generated the data in support of the NDA;
- payment of user fees for FDA review of the NDA; and
- FDA review and approval of the NDA, including of the proposed prescribing information and, where applicable, consideration of the views of any FDA advisory committee, prior to any commercial marketing or sale of the drug in the United States.

Preclinical Studies and Clinical Trials for Drugs

Before testing any drug in humans, compound must undergo rigorous preclinical testing. Preclinical studies include laboratory evaluations of product chemistry, formulation and stability, as well as in vitro and animal studies to assess maximum tolerable dose and in some cases to establish the rationale for therapeutic use. The conduct of preclinical studies is subject to federal and state regulation and requirements, including GLP requirements under 21 C.F.R. Part 58 and animal testing requirements under the Animal Welfare Act Amendments of 1976 (7 U.S.C. 2131 et seq.). The results of the preclinical studies, together with manufacturing information and analytical data, must be submitted to the FDA as part of an IND.

An IND is a submission to the FDA under which a sponsor proposes to administer an investigational product to humans. An IND must become effective before the proposed clinical trials may begin. The central focus of an IND submission is on the general investigational plan and the protocol(s) for clinical studies. The IND also includes the results of animal and in vitro studies assessing the toxicology, pharmacokinetics, pharmacology, and pharmacodynamic characteristics of the product; chemistry, manufacturing, and controls information; and any available human data or literature to support the use of the investigational product. Some long-term preclinical testing may continue after the IND is submitted. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, raises concerns or questions about the conduct of the proposed clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks, refuses to allow the IND to take effect until the FDA's concerns and questions have been addressed and/or imposes a full or partial clinical hold. The FDA must notify the sponsor of the grounds for the hold, and any identified deficiencies must be resolved before the clinical trial can begin. Submission of an IND may result in the FDA not allowing clinical trials to commence or not allowing clinical trials to commence on the terms originally specified in the IND. A clinical hold can also be imposed once a trial has already begun, thereby halting the trial until the deficiencies articulated by FDA are corrected.

The clinical stage of development involves the administration of the compounds to healthy volunteers or patients under the supervision of qualified investigators, who generally are physicians not employed by or under the trial sponsor's control, in accordance with GCP requirements, which include the requirements that all research subjects provide their informed consent for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria, and the parameters and criteria to be used in monitoring safety and evaluating effectiveness. Each protocol, and any subsequent amendments to the protocol, must be submitted to the FDA as part of the IND.

Furthermore, each clinical trial must be reviewed and approved by an IRB or IEC for each institution at which the clinical trial will be conducted to ensure that the risks to individuals participating in the clinical trials are minimized and are reasonable compared to the anticipated benefits. The IRB or IEC also approves the informed consent form that must be provided to each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed. The FDA, the IRB or IEC, or the sponsor may suspend or discontinue a clinical trial at any time on various grounds, including a finding that the subjects are being exposed to an unacceptable health risk. There also are requirements governing the reporting of ongoing clinical trials and completed clinical trials to public registries. Information about clinical trials, including results for clinical trials other than phase 1 investigations, must be submitted within specific timeframes for publication on www.ClinicalTrials.gov, a clinical trials database maintained by the National Institutes of Health.

A sponsor who wishes to conduct a clinical trial outside of the United States are subject to the requirements of the applicable jurisdiction and may, but need not, obtain FDA authorization to conduct the clinical trial under an IND. If a foreign clinical trial is not conducted under an IND, the FDA will nevertheless accept the results of the study in support of an NDA if the study was conducted in accordance with GCP requirements, and the FDA is able to validate the data through an onsite inspection if deemed necessary.

Clinical trials to evaluate therapeutic indications to support NDAs for marketing approval are typically conducted in three sequential phases, which may overlap.

- Phase 1 — Phase 1 clinical trials involve initial introduction of the investigational product in a limited population of healthy human volunteers or patients with the target disease or condition. These studies are typically designed to test the safety, dosage tolerance, absorption, metabolism and distribution of the investigational product in humans, evaluate the side effects associated with increasing doses, and, if possible, to gain early evidence of effectiveness.

- Phase 2 — Phase 2 clinical trials typically involve administration of the investigational product to a limited patient population with a specified disease or condition to evaluate the drug's potential efficacy, to determine the optimal dosages and dosing schedule, and to identify possible adverse side effects and safety risks.

- Phase 3 — Phase 3 clinical trials typically involve administration of the investigational product to an expanded patient population to further evaluate dosage, to provide statistically significant evidence of clinical efficacy, and to further test for safety, generally at multiple geographically dispersed clinical trial sites. These clinical trials are intended, with the other available evidence, to establish the overall risk/benefit ratio of the investigational product and to provide an adequate basis for product approval and physician labeling. Generally, two adequate and well-controlled phase 3 trials are required by the FDA for approval of an NDA. Under certain circumstances, FDA can conclude that one adequate and well-controlled clinical investigation plus confirmatory evidence is sufficient to establish effectiveness.

Post-approval trials, sometimes referred to as phase 4 clinical trials or post-marketing studies, may be conducted after initial marketing approval. These trials are used to gain additional evidence from the treatment of study subjects in the intended therapeutic indication and are commonly intended to generate additional safety data regarding use of the product in a clinical setting, or in some cases to confirm clinical benefit. In certain instances, the FDA may mandate the performance of phase 4 clinical trials as a condition of NDA approval.

Progress reports detailing the results of the clinical trials, among other information, must be submitted at least annually to the FDA. Written IND safety reports must be submitted to the FDA and the investigators fifteen days after the trial sponsor determines the information qualifies for reporting for serious and unexpected suspected adverse events, findings from other studies or animal or in vitro testing that suggest a significant risk for human volunteers, and any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must also notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction as soon as possible but in no case later than seven calendar days after the sponsor's initial receipt of the information.

Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the compound and finalize a process for manufacturing the drug product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the compound and manufacturers must develop, among other things, methods for testing the identity, strength, quality and purity of the final drug product. Additionally, appropriate packaging must be selected and tested, and stability studies must be conducted to demonstrate that the compound does not undergo unacceptable deterioration over its shelf life.

Expanded Access

Expanded access, sometimes called "compassionate use," is the use of investigational products outside of controlled clinical trials to treat patients with serious or immediately life-threatening diseases or conditions when there are no comparable or satisfactory alternative treatment options. FDA regulations allow access to investigational products under an IND by the sponsor or the treating physician for treatment purposes on a case-by-case basis for the following groups: individual patients (single-patient IND applications for treatment in emergency settings and non-emergency settings); intermediate-size patient populations; and larger populations for use of the investigational product under a treatment protocol or treatment IND.

A clinical trial sponsor is not obligated under the law to provide expanded access to its investigational product. However, if a sponsor decides to make its investigational product available for expanded access, FDA reviews each request for expanded access and determines if treatment may proceed. Expanded access may be appropriate when all of the following criteria apply: the patient has a serious or immediately life-threatening disease or condition, and there is no comparable or satisfactory alternative therapy to diagnose, monitor, or treat the disease or condition; the potential patient benefit justifies the potential risks of the treatment and the potential risks are not unreasonable in the context of the disease or condition to be treated; and providing the investigational product for the requested use will not interfere with the initiation, conduct, or completion of clinical investigations that could support marketing approval of the expanded access use or otherwise compromise the potential development of the expanded access use.

In addition, on May 30, 2018, the Right to Try Act was signed into law. The law, among other things, provides an additional mechanism for patients with a life-threatening condition who have exhausted approved treatments and are unable to participate in clinical trials to access certain investigational products that have completed a phase 1 clinical trial, are the subject of an active IND, and are undergoing investigation in a clinical trial that is intended to form the primary basis of a claim of effectiveness in support of FDA approval. Unlike the expanded access framework described above, the Right to Try Act does not require FDA to review or approve requests for use of the investigational product, although the law requires sponsors to report annually to the FDA on use of the pathway and require the FDA to post certain annual summaries. There is no obligation for a sponsor to make its investigational products available to eligible patients under the Right to Try Act.

Under the 21st Century Cures Act, the manufacturer or distributor of one or more investigational products for the diagnosis, monitoring and treatment of a serious disease or condition must make publicly available their policy for evaluating and responding to requests for expanded access for individual patients. The manufacturer or distributor is required to make such policies publicly available upon the earlier of initiation of a phase 2 or phase 3 study, or as applicable, 15 days after the investigational drug receives designation as a breakthrough therapy, fast track product, or regenerative medicine advanced therapy. The posting of the expanded access policies by manufacturers and distributors does not serve as a guarantee of access to any specific investigational drug by any individual patient, but the sponsor must develop a policy and respond to patient requests according to that policy.

U.S. Marketing Approval for Drugs

Assuming successful completion of the required clinical testing, the results of the preclinical studies and clinical trials, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA package requesting approval to market the drug product for one or more indications. An NDA is an application to FDA for approval to market a new drug for one or more specified indications and must contain proof of the drug's maximum tolerable dose and efficacy for the requested indication(s). An NDA is required to include both negative and ambiguous results of preclinical studies and clinical trials, as well as positive findings, together with detailed information relating to the product's chemistry, manufacturing, controls, and proposed labeling, among other things. Data may come from company-sponsored clinical trials intended to test the maximum tolerable dose and efficacy of a product's use or from a number of alternative sources, including studies initiated by investigators. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the maximum tolerable dose and efficacy of the investigational drug, to the satisfaction of the FDA. The FDA must approve an NDA before a drug may be marketed in the United States.

The FDA reviews all submitted NDAs to ensure they are sufficiently complete to permit substantive review before it accepts them for filing and may request additional information rather than accepting the NDA for filing. The FDA must make a decision on accepting an NDA for filing within 60 days of receipt, and such decision could include a "refuse-to-file" decision by the FDA. Once the submission is accepted for filing, the FDA begins an in-depth substantive review of the NDA. The FDA reviews an NDA to determine, among other things, whether the product is safe and effective for the indications sought and whether the facility in which it is manufactured, processed, packaged or held meets standards designed, including cGMP requirements, designed to assure and preserve the product's continued identity, strength, quality and purity. Under the goals and polices agreed to by the FDA under the Prescription Drug User Fee Act, as amended (the "PDUFA"), the FDA targets ten months, from the filing date, in which to complete its initial review of a new molecular entity NDA and respond to the applicant, and six months from the filing date of a new molecular entity NDA for priority review. The FDA does not always meet its PDUFA goal dates for standard or priority NDAs, and the review process is often extended by FDA requests for additional information or clarification.

Further, under PDUFA, each NDA must be accompanied by a substantial user fee. For fiscal year 2023, the application fee for each application containing clinical data is $3,242,026. PDUFA also imposes an annual program fee for each approved prescription drug, which has been set at $393,933 for fiscal year 2023. The FDA adjusts the PDUFA user fees on an annual basis. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business. Additionally, no user fees are assessed on applications for products designated as orphan drugs, unless the product also includes a non-orphan indication.

The FDA also may require submission of a Risk Evaluation and Mitigation Strategy ("REMS") if it believes that a risk evaluation and mitigation strategy is necessary to ensure that the benefits of the drug outweigh its risks. A REMS can include use of risk evaluation and mitigation strategies like medication guides, physician communication plans, assessment plans, and/or elements to assure safe use ("ETASU") such as restricted distribution methods, patient registries, special monitoring or other risk-minimization tools.

The FDA may refer an application for a novel drug to an advisory committee. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, which reviews, evaluates and provides advice and recommendations to FDA as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and are adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA may inspect one or more select clinical trial sites involved in conducting pivotal studies to assure compliance with GCP and other requirements and the integrity of the clinical data submitted to the FDA.

After evaluating the NDA and all related information, including the advisory committee recommendation, if any, and inspection reports regarding the manufacturing facilities and clinical trial sites, the FDA may issue an approval letter, or, in some cases, a Complete Response Letter. A Complete Response Letter indicates that the review cycle of the application is complete, and the application is not ready for approval. A Complete Response Letter generally contains a statement of specific conditions that must be met in order to secure final approval of the NDA, except that where the FDA determines that the data supporting the application are inadequate to support approval, the FDA may issue the Complete Response Letter without first conducting required inspections, testing submitted product lots, and/or reviewing proposed labeling. In issuing the Complete Response Letter, the FDA may require additional clinical or preclinical testing or recommend other actions, such as requests for additional information or clarification, that the applicant might take in order for the FDA to reconsider the application. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. If and when those conditions have been met to the FDA's satisfaction, the FDA will typically issue an approval letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indication(s).

Even if the FDA approves a product, depending on the specific risk(s) to be addressed it may limit the approved indications for use of the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including phase 4 clinical trials, be conducted to further assess a product's maximum tolerable dose and efficacy after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution and use restrictions or other risk management mechanisms under a REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes, and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Orphan Drug Designation and Exclusivity

Under the Orphan Drug Act, the FDA may grant orphan drug designation to a drug intended to treat a rare disease or condition, which is a disease or condition with either a patient population of fewer than 200,000 individuals in the United States, or a patient population greater than 200,000 individuals in the United States when there is no reasonable expectation that the cost of developing and making the product available in the United States for the disease or condition will be recovered from sales of the product. Orphan drug designation must be requested before submitting a marketing application. After the FDA grants orphan drug designation, the generic identity of the therapeutic agent and its designated orphan use are disclosed by the FDA on its website. Orphan drug designation does not convey any advantage in or shorten the duration of the regulatory review and approval process, though companies developing orphan products are eligible for certain incentives, including tax credits for qualified clinical testing and waiver of application fees.

If a product that has orphan drug designation subsequently receives the first FDA approval for the use for which it has such designation, the product is entitled to a seven-year period of marketing exclusivity from the date of FDA approval during which the FDA may not approve any other applications to market the "same drug" for the same use, except in limited circumstances, such as a subsequent product's showing of "clinical superiority" over the product with orphan exclusivity or where the original applicant cannot produce sufficient quantities of product. The FDA defines "same drug" with respect to small molecule drugs as a drug that contains the same active moiety as a previously approved drug and is intended for the same use as the previously approved drug. To demonstrate a drug is "clinically superior" to the previously approved orphan drug, a sponsor must show that the drug provides a significant therapeutic advantage over and above the previously already approved drug in terms of greater efficacy, greater safety, or by providing a major contribution to patient care. Since the enactment of the FDA Reauthorization Act of 2017, the FDA publishes clinical superiority findings on its website for those drugs approved on or after August 18, 2017. Competitors, however, may receive approval of different therapeutic agents for the indication for which the orphan product has exclusivity or obtain approval for the same therapeutic agent for a different indication than that for which the orphan product has exclusivity. If an orphan designated product receives marketing approval for an indication broader than what is designated, it may not be entitled to orphan exclusivity. Further, orphan drug exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective or the manufacturer of the approved product is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition, or if the manufacturer chooses to provide consent to approval of other applications.

Expedited Development and Review Programs for Drugs

The FDA maintains several programs intended to facilitate and expedite development and review of new drugs to address unmet medical needs in the treatment of serious or life-threatening diseases or conditions. These programs include Fast Track designation, Breakthrough Therapy designation, Priority Review and Accelerated Approval, and the purpose of these programs is to either expedite the development or review of important new drugs and biologics to get them to patients more quickly than standard FDA review timelines typically permit. We intend to apply for these programs for compounds, as applicable.

A new drug is eligible for Fast Track designation if it is intended to treat a serious or life-threatening disease or condition and demonstrates the potential to address unmet medical needs for such disease or condition. Fast Track designation applies to the compound and the specific indication for which it is being studied. The sponsor of a new drug product may request the FDA to designate the drug as a Fast Track product at any time during the clinical development of the product, but ideally no later than the pre-NDA meeting because many of the features of Fast Track designation will not apply after that time. Fast Track designation provides increased opportunities for sponsor interactions with the FDA during preclinical and clinical development, in addition to the potential for rolling review once a marketing application is filed. Rolling review means that the FDA may review portions of the marketing application before the sponsor submits the complete application. CC8464 for the treatment of EM has been granted Fast Track status.

In addition, a new drug may be eligible for Breakthrough Therapy designation if it is intended to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the drug, alone or in combination with one or more other drugs, may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. A sponsor may request that a drug product be designated as a Breakthrough Therapy at any time during the clinical development of the product and ideally before initiation of the pivotal clinical trial intended to serve as the primary basis for demonstration of efficacy to obtain the full benefits of the designation. Breakthrough Therapy designation provides all the features of Fast Track designation, in addition to intensive guidance on an efficient product development program beginning as early as phase 1 and FDA organizational commitment to expedited development, including involvement of senior managers and experienced review staff in a cross-disciplinary review, where appropriate.

Any product submitted to the FDA for approval, including a product with Fast Track or Breakthrough Therapy designation, may also be eligible for additional FDA programs intended to expedite the review and approval process, including Priority Review and Accelerated Approval. A product is eligible for Priority Review, once an NDA is submitted, if the product that is the subject of the marketing application has the potential to provide a significant improvement in safety or effectiveness in the treatment, diagnosis or prevention of a serious disease or condition. Significant improvement may be illustrated by the following examples: evidence of increased effectiveness in treatment, prevention, or diagnosis of a condition, elimination or substantial reduction of a treatment-limiting adverse reaction, documented enhancement of patient compliance that is expected to lead to an improvement in serious outcomes, and evidence of safety and effectiveness in a new subpopulation. Under Priority Review, the FDA's goal date to take action on the marketing application is six months compared to ten months for a standard review.

The FDA may grant Accelerated Approval to a product for a serious or life-threatening condition that provides meaningful therapeutic advantage to patients over existing treatments based upon a determination that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit. The FDA may also grant Accelerated Approval for such a condition when the product has an effect on an intermediate clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality ("IMM") and 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. Products granted accelerated approval must meet the same statutory standards for safety and effectiveness as those granted traditional approval.

For the purposes of Accelerated Approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign or other measure that is thought to predict clinical benefit but is not itself a measure of clinical benefit. Surrogate endpoints can often be measured more easily or more rapidly than clinical endpoints. An intermediate clinical endpoint is a measurement of a therapeutic effect that is considered reasonably likely to predict the clinical benefit of a drug, such as an effect on IMM. The FDA has limited experience with accelerated approvals based on intermediate clinical endpoints but has indicated that such endpoints generally may support Accelerated Approval where the therapeutic effect measured by the endpoint is not itself a clinical benefit and basis for traditional approval, if there is a basis for concluding that the therapeutic effect is reasonably likely to predict the ultimate clinical benefit of a product.

The Accelerated Approval pathway is most often used in settings in which the course of a disease is long, and an extended period of time is required to measure the intended clinical benefit of a product, even if the effect on the surrogate or intermediate clinical endpoint occurs rapidly. Thus, Accelerated Approval has been used extensively in the development and approval of products for treatment of a variety of cancers in which the goal of therapy is generally to improve survival or decrease morbidity and the duration of the typical disease course requires lengthy and sometimes large trials to demonstrate a clinical or survival benefit. Thus, the benefit of Accelerated Approval derives from the potential to receive approval based on surrogate endpoints sooner than possible for trials with clinical or survival endpoints, rather than deriving from any explicit shortening of the FDA approval timeline, as is the case with priority review.

The Accelerated Approval pathway is usually contingent on a sponsor's agreement to conduct, in a diligent manner, additional post-approval confirmatory studies to verify and describe the product's clinical benefit. As a result, a compound 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 the effect on the clinical endpoint. Failure to conduct required post-approval studies, or confirm a clinical benefit during post-marketing studies, would allow the FDA to initiate expedited proceedings to withdraw approval of the product. All promotional materials for compounds approved under accelerated regulations are subject to prior review by the FDA. In addition, the FDA generally requires, as a condition for Accelerated Approval, that all advertising and promotional materials intended for dissemination or publication within 120 days of marketing approval be submitted to the agency for review during the pre-approval review period. After the 120-day period has passed, all advertising and promotional materials must be submitted at least 30 days prior to the intended time of initial dissemination or publication.

Even if a product qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or the time period for FDA review or approval may not be shortened. Furthermore, Fast Track designation, Breakthrough Therapy designation, Priority Review and Accelerated Approval do not change the scientific or medical standards for approval or the quality of evidence necessary to support approval, though they may expedite the development or review process.

Pediatric Study Plan and Pediatric Exclusivity

Under the Pediatric Research Equity Act, as amended (the "PREA"), certain NDAs and certain NDA supplements must contain data that can be used to assess the safety and efficacy of the compound for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. For a cancer drug directed at a molecular target, the pediatric testing requirement extends to pediatric cancers involving the molecular target even if different than the claimed adult cancer in the NDA. The FDA may grant deferrals for submission of pediatric data or full or partial waivers. The PREA requires that a sponsor who is planning to submit a marketing application for a compound that includes a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration submit an initial Pediatric Study Plan (the "PSP"), within 60 days of an end-of-phase 2 meeting or, if there is no such meeting, as early as practicable before the initiation of the phase 3 or phase 2/3 study. The initial PSP must include an outline of the pediatric study or studies that the sponsor plans to conduct, including study objectives and design, age groups, relevant endpoints and statistical approach, or a justification for not including such detailed information, and any request for a deferral of pediatric assessments or a full or partial waiver of the requirement to provide data from pediatric studies along with supporting information. The FDA and the sponsor must reach an agreement on the PSP. A sponsor can submit amendments to an agreed-upon initial PSP at any time if changes to the pediatric plan need to be considered based on data collected from preclinical studies, early phase clinical trials and/or other clinical development programs. Unless otherwise required by regulation, the PREA does not apply to a drug for an indication for which orphan drug designation has been granted, except that the PREA will apply to an original NDA for a new active ingredient that is orphan-designated if the drug is a molecularly targeted cancer product intended for the treatment of an adult cancer and is directed at a molecular target that the FDA determines to be substantially relevant to the growth or progression of a pediatric cancer.

A drug can also obtain pediatric market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric study in accordance with an FDA-issued "Written Request" for such a study.

U.S. Post-Approval Requirements for Drugs

Drugs approved by FDA are subject to continuing regulation by the FDA, including, among other things, requirements relating to manufacturing establishment registration and product listing, recordkeeping, periodic reporting, product sampling and distribution, reporting of adverse experiences with the product, field alerts regarding issues with distributed product, promotion and advertising compliance, which include restrictions on promoting products for unapproved uses or patient populations (known as "off-label use") and limitations on industry-sponsored scientific and educational activities. Although physicians may prescribe approved products for off-label uses, manufacturers may not market or promote such uses. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, as well as other advertising and promotion requirements, including not only by company employees but also by agents of the company or those speaking on the company's behalf, and a company that is found to have improperly promoted may be subject to significant liability, including investigation by federal and state authorities. Failure to comply with these requirements can result in, among other things, adverse publicity, warning letters, untitled letters, corrective advertising, and potential civil and criminal penalties, including liabilities under the FCA where products obtain reimbursement under federal health care programs. Promotional materials for approved drugs must be submitted to the FDA in conjunction with their first use or first publication, and for products approved under accelerated approval prior to their first use. Further, if there are any modifications to the drug, including changes in indications, labeling or manufacturing processes or facilities, the applicant may be required to submit and obtain FDA approval of a new NDA or NDA supplement, which may require the development of additional data or preclinical studies and clinical trials.

The FDA may withdraw approval of a product if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information, requirements for post-market studies or clinical trials to assess new safety risks, or imposition of distribution or other restrictions under a REMS. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- the issuance of safety alerts, Dear Healthcare Provider letters, press releases or other communications containing warnings or other safety information about the product;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve applications or supplements to approved applications, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products;
- injunctions or the imposition of civil or criminal penalties; and
- consent decrees, corporate integrity agreements, debarment or exclusion from federal healthcare programs; or mandated modification of promotional materials and labeling and issuance of corrective information.

United States Patent Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of FDA approval of future lead compounds, some of our United States patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984 (the "Hatch-Waxman Amendments"). The Hatch-Waxman Amendments permit restoration of the patent term of up to five years as compensation for patent term lost during the FDA regulatory review process for a drug that has not been previously approved for commercial marketing. Patent-term restoration, however, cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date and only those claims covering such approved drug product, a method for using it or a method for manufacturing it may be extended. The patent-term restoration period is generally one-half the time between the effective date of an IND and the submission date of an NDA plus the time between the submission date of an NDA and the approval of that application, except that the review period is reduced by any time during which the applicant failed to exercise due diligence. Only one patent applicable to an approved drug is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The USPTO, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we may apply for restoration of patent term for our currently owned or licensed patents to add patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant NDA.

Regulatory exclusivity provisions under the FDCA also can delay the submission or the approval of certain applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to gain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an ANDA, or a 505(b)(2) NDA, submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement.

The FDCA also provides three years of exclusivity for an NDA, 505(b)(2) NDA, or supplement to an existing NDA, if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example, new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the conditions of use associated with the new clinical investigations and prevents FDA approval of an ANDA or 505(b)(2) NDA for such conditions of use, but does not prevent FDA acceptance for filing and review of an ANDA or 505(b)(2) NDA. The three-year exclusivity does not prohibit the FDA from approving ANDAs or 505(b)(2) NDAs for drugs containing the original active agent for other conditions of use outside those protected by the exclusivity. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical trials necessary to evaluate maximum tolerated dose and effectiveness.

Other Regulatory Matters

Manufacturing, sales, promotion and other activities of products following product approval, where applicable, or commercialization are also subject to regulation by numerous regulatory authorities in the United States in addition to the FDA, which may include the CMS, other divisions of the U.S. Department of Health and Human Services ("HHS"), the Department of Justice, the Drug Enforcement Administration, the Consumer Product Safety Commission, the Federal Trade Commission, the Occupational Safety & Health Administration, the Environmental Protection Agency and state and local governments and governmental agencies.

Healthcare Laws

Healthcare providers, physicians, and third-party payors will play a primary role in the recommendation and prescription of any products for which we obtain marketing approval. Our business operations and any current or future arrangements with third-party payors, healthcare providers, and physicians may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we develop, market, sell and distribute any drugs for which we obtain marketing approval. In the United States, these laws include federal and state anti-kickback, false claims, physician transparency, and patient data privacy and security laws and regulations, including those described below.

- The federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, receiving, offering or paying any remuneration (including any kickback, bribe, or rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return for, either the referral of an individual, or the purchase, lease, order or recommendation of any good, facility, item or service for which payment may be made, in whole or in part, under a federal healthcare program, such as the Medicare and Medicaid programs. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. Violations are subject to civil and criminal fines and penalties for each violation, plus up to three times the remuneration involved, imprisonment, and exclusion from federal health care programs. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the FCA. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, but the exceptions and safe harbors are drawn narrowly and require strict compliance in order to offer protection.

- The federal civil and criminal false claims laws, including the FCA, which can be enforced through civil "whistleblower" actions, and civil monetary penalty laws, impose criminal and civil penalties against individuals or entities for, among other things, knowingly presenting, or causing to be presented, claims for payment or approval from Medicare, Medicaid, or other federal health care programs that are false or fraudulent; knowingly making or causing a false statement material to a false or fraudulent claim or an obligation to pay money to the federal government; or knowingly concealing or knowingly and improperly avoiding or decreasing such an obligation. Manufacturers can be held liable under the FCA even when they do not submit claims directly to government payors if they are deemed to "cause" the submission of false or fraudulent claims. When an entity is determined to have violated the federal civil FCA, the government may impose civil fines and penalties for each false claim, plus treble damages, and exclude the entity from participation in Medicare, Medicaid and other federal healthcare programs.

- The federal civil monetary penalties laws impose civil fines for, among other things, the offering or transfer or remuneration to a Medicare or state healthcare program beneficiary, if the person knows or should know it is likely to influence the beneficiary's selection of a particular provider, practitioner, or supplier of services reimbursable by Medicare or a state health care program, unless an exception applies.

- HIPAA, which created additional federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (including, public or private) and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters. Similar to the federal Anti-Kickback Statute, a person or entity can be found guilty of violating HIPAA without actual knowledge of the statute or specific intent to violate it.

- HIPAA, as amended by HITECH, and their respective implementing regulations, which impose requirements on certain covered healthcare providers, health plans, and healthcare clearinghouses and their respective business associates that perform services for them that involve the use, or disclosure of, individually identifiable health information as well as their covered subcontractors, relating to the privacy, security and transmission of individually identifiable health information without appropriate authorization. HITECH also created new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions.

- The federal Physician Payments Sunshine Act, enacted as part of the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (collectively, the "ACA"), imposed annual reporting requirements for certain manufacturers of drugs, devices, biologics, and medical supplies for which payment is available under Medicare, Medicaid, or the Children's Health Insurance Program, for certain payments and "transfers of value" provided to physicians (currently defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. Effective January 1, 2022, these reporting obligations will extend to include transfers of value made in the previous year to certain non-physician providers such as physician assistants and nurse practitioners.

- Federal consumer protection and unfair competition laws broadly regulate marketplace activities and activities that potentially harm consumers.

- Analogous state and foreign laws and regulations, such as state and foreign anti-kickback, false claims, consumer protection and unfair competition laws which may apply to pharmaceutical business practices, including but not limited to, research, distribution, sales and marketing arrangements as well as submitting claims involving healthcare items or services reimbursed by any third-party payor, including commercial insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government that otherwise restricts payments that may be made to healthcare providers and other potential referral sources; state laws that require drug manufacturers to file reports with states regarding pricing and marketing information, such as the tracking and reporting of gifts, compensations and other remuneration and items of value provided to healthcare professionals and entities; state and local laws requiring the registration of pharmaceutical sales representatives; and state and foreign laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current regulatory and healthcare environment, especially in light of the lack of applicable precedent and regulations. Federal and state enforcement bodies have recently increased their scrutiny of interactions between healthcare companies and healthcare providers, which has led to a number of investigations, prosecutions, convictions and settlements in the healthcare industry.

Insurance Coverage and Reimbursement

In the United States and markets in other countries, patients who are prescribed treatments for their conditions and providers performing healthcare services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Thus, even if a compound is approved, sales of the product will depend, in part, on the extent to which third-party payors, including government healthcare programs in the United States such as Medicare and Medicaid, private health insurers, managed care organizations and other third-party payors, provide coverage, and establish adequate reimbursement levels for, the product. In the United States, principal decisions about Medicare reimbursement for new products are typically made by CMS and regional contractors responsible for administering the Medicare program. CMS and these contractors decide whether and to what extent a new product will be covered and reimbursed under Medicare, and private third-party payors often follow CMS's decisions regarding coverage and reimbursement to a substantial degree.

Reimbursement by a third-party payor may depend upon a number of factors, including, but not limited to, the third-party payor's determination that use of a product is (1) a covered benefit under its health plan; (2) safe, effective and medically necessary; (3) appropriate for the specific patient; (4) cost-effective; and (5) neither experimental nor investigational. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. However, one third-party payor's determination to provide coverage for a compound does not assure that other payors will also provide coverage for the compound. No uniform policy of coverage and reimbursement for products exists among third-party payors, and coverage and reimbursement levels for products can differ significantly from payor to payor.

Third-party payors are increasingly challenging the prices charged, examining the medical necessity, reviewing the cost-effectiveness of medical products and services and imposing controls to manage costs. In order to secure coverage and reimbursement for any product that might be approved for sale, a company may need to conduct expensive pharmaco-economic studies in order to demonstrate the cost effectiveness of the product, which will require additional expenditure above and beyond the costs required to obtain FDA or other comparable regulatory approvals. Third-party payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the FDA-approved products for a particular indication. Moreover, the containment of healthcare costs has become a priority of federal, state and foreign governments, and the prices of products have been a focus in this effort. Governments have shown significant interest in implementing cost-containment programs, including price controls or price increase penalties, restrictions on reimbursement and requirements for substitution of generic products.

In addition, companion diagnostic tests require coverage and reimbursement separate and apart from the coverage and reimbursement for their companion pharmaceutical products. Similar challenges to obtaining coverage and reimbursement, applicable to pharmaceutical products, will apply to companion diagnostics.

Current and Future Healthcare Reform Legislation

In the United States and certain foreign jurisdictions, there have been, and likely will continue to be, a number of proposed and adopted legislative and regulatory changes regarding the healthcare system directed at broadening the availability of healthcare, improving the quality of healthcare, and containing or lowering the cost of healthcare. For example, in March 2010, the United States Congress enacted the ACA, which, among other things, includes changes to the coverage and payment for products under government health care programs. The ACA includes provisions of importance to our potential lead compounds that:

- created an annual, nondeductible fee on any entity that manufactures or imports specified branded prescription drug products, apportioned among these entities according to their market share in certain government healthcare programs;

- expanded eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to certain individuals with income at or below 133% of the federal poverty level, thereby potentially increasing a manufacturer's Medicaid rebate liability;

- expanded manufacturers' rebate liability under the Medicaid Drug Rebate Program by increasing the minimum rebate for both branded and generic drugs and revising the definition of "average manufacturer price," or AMP, for calculating and reporting Medicaid drug rebates on outpatient prescription drug prices;

- addressed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected;

- expanded the types of entities eligible for the 340B drug discount program;

- established the Medicare Part D coverage gap discount program by requiring manufacturers to provide point-of-sale-discounts off the negotiated price of applicable brand drugs to eligible beneficiaries during their coverage gap period as a condition for the manufacturers' outpatient drugs to be covered under Medicare Part D; and

- created a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

Since its enactment, there have been numerous judicial, administrative, executive, and legislative challenges to certain aspects of the ACA, and we expect there will be additional challenges and amendments to the ACA in the future. For example, various portions of the ACA have faced legal and constitutional challenges, including in the United States Supreme Court; the Trump administration issued various Executive Orders which eliminated cost sharing subsidies and various provisions that would impose a fiscal burden on states or a cost, fee, tax, penalty or regulatory burden on individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices; and Congress introduced several pieces of legislation aimed at significantly revising or repealing the ACA. It is unclear whether the ACA will be overturned, repealed, replaced, or further amended in the future, and we cannot predict what effect further changes to the ACA would have on our business.

Other legislative changes have been proposed and adopted in the United States since the ACA was enacted. For example, in August 2011, the Budget Control Act of 2011, among other things, included reductions of Medicare payments to providers of 2%, which went into effect in April 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2030 unless additional Congressional action is taken. In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

Moreover, payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives. For example, CMS may develop new payment and delivery models, including bundled payment models. In addition, recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their commercial products, which has resulted in numerous Congressional inquiries and proposed and enacted state and federal legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for pharmaceutical products. At the federal level, former President Trump used several means to propose or implement drug pricing reform, including through federal budget proposals, executive orders, and policy initiatives. It is unclear whether the Biden administration will work to reverse those measures or pursue similar or other policy initiatives, for example related to an independent review board or other mechanisms that would impact drug pricing and reimbursement.

On November 20, 2020, CMS and the HHS Office of the Inspector General issued two final rules implementing changes to the Physician Self-Referral Law, or Stark Law, and the Anti-Kickback Statute. These new rules provide new value-based enterprise exceptions and safe harbors to the Stark Law and the Anti-Kickback Statute, as well as offer additional clarification in the form of updated definitions.

Compliance with Other Federal and State Laws or Requirements; Changing Legal Requirements

If any products that we may develop are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. Products must meet applicable child-resistant packaging requirements under the U.S. Poison Prevention Packaging Act. Manufacturing, labeling, packaging, distribution, sales, promotion and other activities also are potentially subject to federal and state consumer protection and unfair competition laws, among other requirements to which we may be subject. The distribution of pharmaceutical products is subject to additional requirements and regulations, including extensive recordkeeping, licensing, storage and security requirements intended to prevent the unauthorized sale of pharmaceutical products, and state licensure.

The failure to comply with any of these laws or regulatory requirements may subject firms to legal or regulatory action. Depending on the circumstances, failure to meet applicable regulatory requirements can result in criminal prosecution, fines or other penalties, injunctions, exclusion from federal healthcare programs, requests for recall, seizure of products, total or partial suspension of production, denial or withdrawal of product approvals, relabeling or repackaging, or refusal to allow a firm to enter into supply contracts, including government contracts. Any claim or action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Prohibitions or restrictions on marketing, sales or withdrawal of future products marketed by us could materially affect our business in an adverse way.

Changes in regulations, statutes or the interpretation of existing regulations could impact our business in the future by requiring, for example: (1) changes to our manufacturing arrangements; (2) additions or modifications to product labeling or packaging; (3) the recall or discontinuation of our products; or (4) additional recordkeeping requirements. If any such changes were to be imposed, they could adversely affect the operation of our business.

Government Regulation of Drugs Outside of the United States

To market any product outside of the United States, we would need to comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy and governing, among other things, clinical trials, marketing authorization, manufacturing, commercial sales and distribution of our products. These regulatory requirements may be similarly complex and even more stringent in certain regards than those described above. If we fail to comply with applicable regulatory requirements in the jurisdiction where we conduct clinical trials or seek regulatory approvals, we may be subject to, among other things, fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

For instance, in the European Economic Area (the "EEA") (comprising the 27 EU member states plus Iceland, Liechtenstein and Norway), medicinal products must be authorized for marketing by using either the centralized authorization procedure or national authorization procedures.

- Centralized procedure—The centralized procedure provides for the grant of a single marketing authorization by the European Commission that is valid throughout the EEA. Pursuant to Regulation (EC) No. 726/2004, the centralized procedure is compulsory for specific products, including for medicines produced by certain biotechnological processes, products designated as orphan medicinal products, advanced therapy products (gene therapy, somatic cell therapy and tissue engineered products) and products with a new active substance indicated for the treatment of certain diseases, which includes products for the treatment of cancer. For medicines that do not fall within one of the mandatory categories, an applicant still has the option of submitting an application for a centralized marketing authorization to the European Medicines Agency (the "EMA"), as long as the medicine concerned contains a new active substance not authorized in the EEA prior to May 20, 2004, is a significant therapeutic, scientific or technical innovation, or if its authorization would be in the interest of public health in the EEA. If pursuing marketing authorization of a lead compound for a therapeutic indication under the centralized procedure, the EMA's Committee for Medicinal Products for Human Use (the "CHMP"), is responsible for conducting an initial assessment of whether a product meets the required quality, safety and efficacy requirements, and whether a product has a positive benefit/risk ratio. Under the centralized procedure the maximum timeframe for the evaluation of a marketing authorization application (the "MAA"), by the EMA is 210 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. Clock stops may extend the timeframe of evaluation of a MAA considerably beyond 210 days. Where the CHMP gives a positive opinion, it provides the opinion together with supporting documentation to the European Commission, who make the final decision to grant a marketing authorization, which is issued within 67 days of receipt of the EMA's recommendation. Accelerated assessment might be granted by the CHMP in exceptional cases, when a medicinal product is expected to be of major public health interest, particularly from the point of view of therapeutic innovation. The timeframe for the evaluation of a MAA under the accelerated assessment procedure is 150 days, excluding clock stops, but it is possible that the CHMP may revert to the standard time limit for the centralized procedure if it determines that the application is no longer appropriate to conduct an accelerated assessment.

- National authorization procedures—There are also two other possible routes to authorize products for therapeutic indications in several countries, which are available for products that fall outside the scope of the centralized procedure:

    - Decentralized procedure—Using the decentralized procedure, an applicant may apply for simultaneous authorization in more than one EEA Member State for a medicinal product that has not yet been authorized in any EEA Member State and that does not fall within the mandatory scope of the centralized procedure.

    - Mutual recognition procedure—In the mutual recognition procedure, a medicine is first authorized in one EEA Member State, in accordance with the national procedures of that country. Following this, additional marketing authorizations can be sought from other EEA Member States in a procedure whereby the countries concerned recognize the validity of the original, national marketing authorization.

In both cases, as with the centralized procedure, the competent authorities of the EEA Member States assess the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy before granting the marketing authorization.

In the EEA, new products for therapeutic indications that are authorized for marketing (so called "references products") qualify for eight years of data exclusivity and an additional two years of market exclusivity upon marketing authorization. The data exclusivity period prevents generic or biosimilar applicants from referencing the preclinical and clinical trial data contained in the dossier of the reference product when applying for a generic or biosimilar marketing authorization in the EEA during a period of eight years from the date on which the reference product was first authorized in the EEA. The additional two-year period of market exclusivity period prevents a successful generic or biosimilar applicant from commercializing its product in the EEA until ten years have elapsed from the initial authorization of the reference product in the EU. The overall ten-year period can be extended to a maximum of eleven years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies. Even if a compound is considered to be a new active substance so that the innovator gains the prescribed period of data exclusivity, another company may market another version of the product if such company obtained marketing authorization based on a MAA with a complete independent data package of pharmaceutical tests, preclinical tests and clinical trials.

The criteria for designating an "orphan medicinal product" in the EEA are similar in principle to those in the United States. Under Article 3 of Regulation (EC) 141/2000, in the EEA a medicinal product may be designated as orphan if it meets the following criteria (1) it is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition; and (2) either (a) such condition affects no more than five in 10,000 persons in the EEA when the application is made, or (b) it is unlikely that the product, without the benefits derived from orphan status, would generate sufficient return in the EEA to justify the investment needed for its development; and (3) there exists no satisfactory method of diagnosis, prevention or treatment of such condition, or if such a method exists, the product will be of significant benefit to those affected by the condition. Orphan medicinal products are eligible for financial incentives such as reduction of fees or fee waivers and are, upon grant of a marketing authorization, entitled to ten years of market exclusivity for the approved therapeutic indication. During this ten-year orphan market exclusivity period, no marketing authorization application shall be accepted, and no marketing authorization shall be granted for a similar medicinal product for the same indication, although similar, is safer, more effective or otherwise clinically superior than the authorized product; (ii) the marketing authorization holder of the authorized product consents to a second orphan medicinal product application; or (iii) the marketing authorization holder of the authorized product cannot supply enough orphan medicinal product. An orphan product can also obtain an additional two years of market exclusivity in the EEA for pediatric studies. The ten-year market exclusivity may be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for orphan drug designation, for example, if the product is sufficiently profitable not to justify maintenance of market exclusivity. The application for orphan drug designation must be submitted before the application for marketing authorization. The applicant will receive a fee reduction for the MAA if the orphan drug designation has been granted, but not if the designation is still pending at the time the marketing authorization is submitted. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

Similar to the United States, the various phases of non-clinical and clinical research in the European Union are subject to significant regulatory controls.

The Clinical Trials Directive 2001/20/EC, the Directive 2005/28/EC on GCP and the related national implementing provisions of the individual EU member states govern the system for the approval of clinical trials in the European Union. Under this system, an applicant must obtain prior approval from the national competent authority (the "NCA"), of the EU member states in which the clinical trial is to be conducted. Furthermore, the applicant may only start a clinical trial at a specific study site after the competent ethics committee (the "EC"), has issued a favorable opinion. The clinical trial application must be accompanied by, among other documents, an investigational medicinal product dossier (the Common Technical Document) with supporting information prescribed by Directive 2001/20/EC, Directive 2005/28/EC, and the provisions of the individual EU member states' legislation implementing the Clinical Trials Directive. Under the current regime (the EU Clinical Trials Directive 2001/20/EC and corresponding national laws) all suspected unexpected serious adverse reactions to the investigated drug that occur during the clinical trial have to be reported to the NCA and ECs of the Member State where they occurred.

In April 2014, the new Clinical Trials Regulation, (EU) No 536/2014 (the "Clinical Trials Regulation") was adopted, which is expected to apply following confirmation of full functionality of the Clinical Trials Information System, the centralized European Union portal and database for clinical trials foreseen by the regulation, through an independent audit. The regulation becomes applicable six months after the European Commission publishes notice of this confirmation, which it has not yet done. The Clinical Trials Regulation will be directly applicable in all the EU member states, repealing the current Clinical Trials Directive 2001/20/EC. Conduct of all clinical trials performed in the European Union will continue to be bound by the Clinical Trials Directive and the Member States' national implementing legislation until the new Clinical Trials Regulation becomes applicable. The extent to which ongoing clinical trials will be governed by the Clinical Trials Regulation will depend on when the Clinical Trials Regulation becomes applicable and on the duration of the individual clinical trial. If a clinical trial continues for more than three years from the day on which the Clinical Trials Regulation becomes applicable the Clinical Trials Regulation will at that time begin to apply to the clinical trial. The new Clinical Trials Regulation aims to simplify and streamline the approval of clinical trials in the European Union. The main characteristics of the regulation include: a streamlined application procedure via a single-entry point, the "EU portal"; a single set of documents to be prepared and submitted for the application as well as simplified reporting procedures for clinical trial sponsors; and a harmonized procedure for the assessment of applications for clinical trials, which is divided in two parts. Part I is assessed by the competent authorities of all EU member states in which an application for authorization of a clinical trial has been submitted (Member States concerned). Part II is assessed separately by each Member State concerned. Strict deadlines have been established for the assessment of clinical trial applications. The role of the relevant ethics committees in the assessment procedure will continue to be governed by the national law of the concerned EU member state. However, overall related timelines will be defined by the Clinical Trials Regulation.

Outside the United States, ensuring coverage and adequate payment for a product also involves challenges. Pricing of prescription pharmaceuticals is subject to government control in many countries. Pricing negotiations with government authorities can extend well beyond the receipt of regulatory approval for a product and may require a clinical trial that compares the cost-effectiveness of a product to other available therapies. The conduct of such a clinical trial could be expensive and result in delays in commercialization. For example, in the European Union, pricing and reimbursement schemes vary widely from country to country. Some countries provide that products may be marketed only after a reimbursement price has been agreed upon. Some countries may require the completion of additional studies that compare the cost-effectiveness of a particular compound to currently available therapies or so-called health technology assessments, in order to obtain reimbursement or pricing approval. For example, the European Union provides options for its member states to restrict the range of products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. European Union member states may approve a specific price for a product or may instead adopt a system of direct or indirect controls on the profitability of the company placing the product on the market. Other member states allow companies to fix their own prices for products, but monitor and control prescription volumes and issue guidance to physicians to limit prescriptions. Recently, many countries in the European Union have increased the amount of discounts required on pharmaceuticals and these efforts could continue as countries attempt to manage healthcare expenditures, especially in light of the severe fiscal and debt crises experienced by many countries in the European Union. The downward pressure on healthcare costs in general, particularly prescription products, has become intense. As a result, increasingly high barriers are being erected to the entry of new products. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various European Union member states, and parallel trade, in other words, arbitrage between low- priced and high-priced member states, can further reduce prices. 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 products, if approved in those countries.

Government Regulation of Data Collection Outside of the United States

In the event we conduct clinical trials in the European Union, we will be subject to additional privacy restrictions. The collection and use of personal health data in the EEA is governed by the General Data Protection Regulation (the "GDPR"), which became effective on May 25, 2018. The GDPR applies to the processing of personal data by any company established in the EEA and to companies established outside the EEA to the extent they process personal data in connection with the offering of goods or services to data subjects in the EEA or the monitoring of the behavior of data subjects in the EEA. The GDPR enhances data protection obligations for data controllers of personal data, including stringent requirements relating to the consent of data subjects, expanded disclosures about how personal data is used, enhanced requirements for securing personal data, requirements to conduct privacy impact assessments for "high risk" processing, limitations on retention of personal data, mandatory data breach notification and "privacy by design" requirements, and creates direct obligations on service providers acting as processors. The GDPR also imposes strict rules on the transfer of personal data outside of the EEA to countries that do not ensure an adequate level of protection, like the United States. Failure to comply with the requirements of the GDPR and the related national data protection laws of the EEA Member States, which may deviate slightly from the GDPR, may result in fines of up to 4% of a company's global revenue for the preceding financial year, or €20 million, whichever is greater. Moreover, the GDPR grants data subjects the right to claim material and non-material damages resulting from infringement of the GDPR. Given the breadth and depth of changes in data protection obligations, maintaining compliance with the GDPR will require significant time, resources and expense, and we may be required to put in place additional controls and processes ensuring compliance with the new data protection rules. There has been limited enforcement of the GDPR to date, particularly in biopharmaceutical development, so we face uncertainty as to the exact interpretation of the new requirements on any future trials and we may be unsuccessful in implementing all measures required by data protection authorities or courts in interpretation of the new law. Further, the United Kingdom's decision to leave the European Union, means that it has in force its own legislation, which is aligned with the GDPR, known as the Data Protection Act 2018. The requirements are similar except that the United Kingdom is now regarded as a "third country" for the purposes of transfers of personal data from the EEA. Transfers continue to flow freely from the UK to the EEA following an adequacy decision from the European Commission adopted on June 28, 2021 and valid for four years.

Data protection authority activity differs across the EU, with certain authorities applying their own agenda which shows there is uncertainty in the manner in which data protection authorities will seek to enforce compliance with GDPR. For example, it is not clear if the authorities will conduct random audits of companies doing business in the EU, or if the authorities will wait for complaints to be filed by individuals who claim their rights have been violated. Enforcement uncertainty and the costs associated with ensuring GDPR compliance are onerous and may adversely affect our business, financial condition, results of operations and prospects.

Should we utilize third-party distributors, compliance with such foreign governmental regulations would generally be the responsibility of such distributors, who may be independent contractors over whom we have limited control.

MANAGEMENT

Executive Officers and Directors

The following table provides information regarding our current executive officers and directors:

Name	Age	Position
Executive Officers		
Francis Knuettel II	57	Interim Chief Executive Officer, Chief Financial Officer, Treasurer and Secretary
Eric Lang	62	Chief Medical Officer
Directors		
Todd Davis	62	Director (Chairman of the Board)
Christian Kopfli	57	Director
Ezra Friedberg	53	Director
Richard Malamut	63	Director
Chia-Lin Simmons	50	Director

Biographic Information - Executive Officers

Francis Knuettel II has served as our Interim Chief Executive Officer since July 2023, and as our Chief Financial Officer, Treasurer and Secretary since June 2022. Prior to that, from December 2020 to April 2022, he served as Chief Executive Officer and director of Unrivaled Brands, a California-based operator of cannabis assets in California and Oregon, where he helped grow revenue from an annualized rate of $10 million to $100 million in six quarters by acquiring three companies in the sector. He also served as Chief Financial Officer of ONE Cannabis Group from June 2019 to January 2021 and held various roles at MJardin Group, including Chief Strategy Officer, from August 2018 to January 2019. Prior to MJardin Group, Mr. Knuettel served as Chief Financial Officer of Aqua Metals in 2018 and held the same position at Marathon Patent Group from 2014 to 2018. During Mr. Knuettel's career, he has helped raise more than $300 million via venture equity and debt, public equity and debt offerings in the United States and Canada, convertible debt, PIPEs, bridge loans and other instruments. In addition, he has managed more than 15 mergers and acquisition transactions of companies as both buyer and seller and has handled large-scale licensing transactions with fortune 50 companies. Mr. Knuettel also holds numerous board positions at both public and private companies, including 180 Life Sciences (Nasdaq: ATNF) since 2021, ECOM Medical since 2019, and Murphy Canyon Acquisition Corp. (Nasdaq: MURF) and Relativity Acquisition Corp. (Nasdaq: RACY) since 2022. Mr. Knuettel received his BA with honors in Economics from Tufts University and holds an MBA in Finance and Entrepreneurial Management from The Wharton School at the University of Pennsylvania.

Eric Lang has served as our Chief Medical Officer since June 2023. Prior to that, from September 2018 to May 2023, Dr. Lang served at Nevakar Inc, initially as Vice President of Clinical Development and later as its Chief Medical Officer. From January 2018 to September 2018, Dr. Lang served as the Chief Medical Officer at Entera Bio Ltd. (Nasdaq: ENTX). From February 2012 to November 2017, he served at Covance (now Labcorp Drug Development), heading an international team that assisted smaller biotech companies in moving their programs through the various phases of pre-clinical and clinical development. From August 2010 to January 2012, Dr. Lang served at Grunenthal USA, Inc. as their head of clinical development. Prior to that, Dr. Lang led the clinical development team at Javelin Pharmaceuticals, Inc. from October 2008 to August 2010, which was acquired by Hospira (now Pfizer Inc.) in 2010. Dr. Lang worked for Novartis Consumer Health from October 2006 to October 2008 and he began his career with Johnson & Johnson (NYSE: JNJ) where he worked from 1999 to 2006. Dr. Lang is an Anesthesiologist and Pain Management Specialist with over 26 years of experience in the pharmaceutical industry. During his pharmaceutical career, he has had both broad based drug and device development expertise in a variety of therapeutic areas. Dr. Lang has experience in designing development programs from early translational stages through phase III including the successful filing of several recent INDs and NDAs. He has experience with Regulatory interactions and negotiations with FDA and various European and Asian Authorities. Dr. Lang received his Doctor of Medicine from Ben-Gurion University of the Negev and completed post graduate training at Emory University in Atlanta, GA.

Biographical Information - Directors

Todd Davis has served as a member of our board of directors since January 2023. He is the founder and has served as the managing partner of RoyaltyRx Capital, LLC, a special opportunities investment firm, since 2018. Since November 2019, he has also served as Chairman and CEO of Benuvia Holdings Inc., a pharmaceutical holding company. From 2006 to 2018, Mr. Davis was a founder and managing partner of Cowen/HealthCare Royalty Partners, a global healthcare investment firm. From 2004 to 2006, Mr. Davis was a partner at Paul Capital Partners, where he co-managed its royalty investments as a member of the Royalty Management Committee. From 2001 to 2004, he served as a partner responsible for biopharmaceutical growth equity investments at Apax Partners. Mr. Davis began his business career in sales at Abbott Laboratories where he held several commercial roles of increasing responsibility. He subsequently held general management, business development, and licensing roles at Elan Pharmaceuticals. Mr. Davis is a navy veteran and received a B.S. from the U.S. Naval Academy and an M.B.A. from the Harvard Business School. He currently serves on the board of directors of Palvella Therapeutics Inc., BioDelivery Sciences International, Inc., and Ligand Pharmaceuticals Incorporated. He is also a board member of the Harvard Business School Healthcare Alumni Association. We believe Mr. Davis is qualified to serve on the board of directors because of his extensive experience within the life sciences industry, including as a founder and managing partner of a special opportunities investment firm.

Christian Kopfli, Esq. has served as our Vice Chairman and Chief Strategy Officer since July 2023, and previously served as our President and Chief Executive Officer since our inception in 2021. He has also served as a director since our inception in 2021. Mr. Kopfli co-founded Chromocell Holdings in 2002, served initially as General Counsel until 2005, served as Chief Executive Officer of Chromocell Holdings from 2005 to 2023, and served as a director since its inception in 2002. Prior to joining Chromocell Holdings, he served as an Associate at Davis Polk & Wardwell, working in its New York City, Tokyo and Frankfurt offices. At Davis Polk, Mr. Kopfli worked extensively in mergers and acquisitions, capital markets and private equity transactions. We believe Mr. Kopfli is qualified to serve on the board of directors because of his extensive experience within the life sciences industry.

Ezra Friedberg has served as a member of our board of directors since May 2021. Since September 2011, Mr. Friedberg has served as co-founder and general partner of Multiplier Capital, a fund focused on lending opportunities to sponsor-backed growth companies. He is also a member of the fund's credit committee. Mr. Friedberg is a seasoned investor with more than twenty years of investing experience in both public and private companies. He invests actively in the biotech space and has served on the board of directors of Humanigen (Nasdaq: HGEN), a clinical-stage biopharmaceutical company which develops monoclonal antibodies. His other investments include private equity, venture capital, and property across the United States, Canada and overseas. Separately, Mr. Friedberg manages and owns other investments and businesses through Liberty Peak Capital, Key Recovery Group, and related companies. Mr. Friedberg is a graduate of Johns Hopkins University. He has founded and is an active board member of several community and civic organizations, including a non-profit mentoring agency. Mr. Friedberg serves and has served on several for-profit and non-profit boards. He was selected to serve on our board of directors due to his investment experience and his knowledge of our industry.

Dr. Richard Malamut has served as a member of our board of directors since January 2023. Dr. Malamut is currently Chief Medical Officer at MedinCell Inc. He was most recently Chief Medical Officer and Executive Vice President at Collegium Pharmaceuticals from April 2019 to May 2022 and has also served as Chief Medical Officer for Braeburn Pharmaceuticals, Inc. from 2018 to 2019 where he was responsible for the company's medical affairs, non-clinical and clinical development, clinical operations, research and development quality assurance, and pharmacovigilance functions. Prior to that, Dr. Malamut had similar responsibilities as Chief Medical Officer at Avanir Pharmaceuticals from 2016 to 2018 and was Senior Vice President of Global Clinical Development at Teva Pharmaceutical Industries Ltd from 2013 to 2016 where he was responsible for Pain, Neuropsychiatry, Oncology, and New Therapeutic Entities. His experience also includes roles of increasing responsibility focusing on early clinical development and translational medicine in Neurology, Psychiatry and Analgesia at Bristol-Myers Squibb and AstraZeneca. Dr. Malamut earned his medical degree from Hahnemann University in Philadelphia and completed both a residency in Neurology and a fellowship in Neuromuscular disease. He worked as a board-certified academic and clinical neurologist for 17 years and has more than 50 publications in the fields of pain medicine, neuromuscular disease, autonomic disease, and neurodegenerative disease. He was selected to serve on our board of directors due to his experience and knowledge of our industry.

Chia-Lin Simmons has served as a member of our board of directors since March 2023. Since June 2021, Ms. Simmons has served as Chief Executive Officer and as a director of LogicMark, Inc. (Nasdaq: LGMK), a company that develops medical alert devices and related technologies. Ms. Simmons currently also serves as a member of the board of directors for Servco Pacific Inc., a global automotive and consumer goods company with businesses in mobility, automotive distribution and sales, and entertainment, and for New Energy Nexus, an international organization that supports clean energy entrepreneurs with funds, accelerators, and networks. From 2016 to June 2021, Ms. Simmons served as the Chief Executive Officer and co-founder of LookyLoo, Inc., an artificial intelligence social commerce company. From 2014 to 2016, Ms. Simmons served as Head of Global Partner Marketing at Google Play, prior to which, between 2010 and 2014, she served as VP of Marketing & Content for Harman International. Ms. Simmons received her B.A. in Communications, Magna cum Laude, and Phi Beta Kappa, from the University of California, San Diego in 1995. She also received her M.B.A. from Cornell University in 2002, where she was a Park Leadership Fellow, and her J.D. from George Mason University in 2005, and is currently a licensed attorney in the State of New York. She was selected to serve on our board of directors due to her experience serving on the boards of directors of public companies.

Board Composition

Board of Directors

Upon completion of the IPO, our board of directors will consist of five members. The primary responsibilities of our board of directors are to provide oversight, strategic guidance, counseling and direction to our management. Our board of directors meets on a regular basis and additionally as required.

Director Independence

Applicable NYSE American rules require a majority of a listed company's board of directors to be comprised of independent directors within one year of listing. In addition, NYSE American rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent and that audit committee members also satisfy independence criteria set forth in Rule 10A-3 under the Exchange Act. The NYSE American independence definition includes a series of objective tests, such as that the director is not, and has not been for at least three years, one of our employees and that neither the director nor any of his family members has engaged in various types of business dealings with us. In addition, under applicable NYSE American rules, a director will only qualify as an "independent director" if, in the opinion of the listed company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Our board of directors has determined that all of our non-employee directors are independent, as defined under applicable NYSE American rules. In making such determination, our board of directors considered the relationships that each such non-employee director has with our company and all other facts and circumstances that our board of directors deemed relevant in determining his or her independence, including the beneficial ownership of our capital stock by each non-employee director and the transactions involving them described in the section entitled "Certain Relationships and Related-Party Transactions."

Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act. In order to be considered independent for purposes of Rule 10A-3 of the Exchange Act, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors or any other board committee: (i) accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries; or (ii) be an affiliated person of the listed company or any of its subsidiaries.

Our executive officers are elected by, and serve at the discretion of, our board of directors. There are no family relationships among any of our directors and officers.

Committees of Our Board of Directors

Our board of directors has an audit committee, a compensation committee and a nominating and corporate governance committee, each of which have the composition and responsibilities described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors. Each committee operates under a charter approved by our board of directors. Following the closing of the IPO, copies of each committee's charter will be posted on the investor relations section of our website at www.chromocell.com.

Audit Committee

Our audit committee is composed of Ezra Friedberg, Todd Davis and Chia-Lin Simmons. Ezra Friedberg is the chairperson of our audit committee. The composition of our audit committee meets the requirements for independence under the current NYSE American listing standards and SEC rules and regulations. Each member of our audit committee is financially literate. In addition, our board of directors has determined that Ezra Friedberg is an "audit committee financial expert" as defined in Item 407(d)(5)(ii) of Regulation S-K promulgated under the Securities Act. This designation does not impose any duties, obligations or liabilities that are greater than are generally imposed on members of our audit committee and our board of directors. Our audit committee is responsible for, among other things:

- our accounting and financial reporting processes, including our financial statement audits and the integrity of our financial statements;
- our compliance with legal and regulatory requirements;
- reviewing and approving related person transactions;
- selecting and hiring our registered independent public accounting firm;
- the qualifications, independence and performance of our independent auditors; and
- the preparation of the audit committee report to be included in our annual proxy statement.

Compensation Committee

Our compensation committee is composed of Richard Malamut, Todd Davis and Chia-Lin Simmons. Richard Malamut is the chairperson of our compensation committee. The composition of our compensation committee meets the requirements for independence under the current NYSE American listing standards and SEC rules and regulations. Each member of this committee is: (i) an outside director, as defined pursuant to Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Code"); and (ii) a non-employee director, as defined in Rule 16b-3 promulgated under the Exchange Act. Our compensation committee is responsible for, among other things:

- evaluating, recommending, approving and reviewing executive officer and director compensation arrangements, plans, policies and programs;
- administering our cash-based and equity-based compensation plans; and
- making recommendations to our board of directors regarding any other board of director responsibilities relating to executive compensation.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee is composed of Chia-Lin Simmons and Richard Malamut. Chia-Lin Simmons is the chairperson of our nominating and corporate governance committee. The composition of our nominating and corporate governance committee meets the requirements for independence under the current NYSE American listing standards and SEC rules and regulations. Our nominating and corporate governance committee is responsible for, among other things:

- identifying, considering and recommending candidates for membership on our board of directors;
- overseeing the process of evaluating the performance of our board of directors; and
- advising our board of directors on other corporate governance matters.

Code of Business Conduct and Ethics

Effective upon the closing of the IPO, we will adopt a Code of Business Conduct and Ethics (the "Code of Conduct"), applicable to all of our employees, executive officers and directors, which will be available on our website at www.chromocell.com. The reference to our website address in this prospectus does not include or incorporate by reference the information on our website into this prospectus. The nominating and corporate governance committee of our board of directors will be responsible for overseeing the Code of Conduct and must approve any waivers of the Code of Conduct for employees, executive officers and directors. In addition, we intend to post on our website all disclosures that are required by law or the listing standards of the applicable stock exchange concerning any amendments to, or waivers from, any provision of the Code of Conduct, to the extent required by the applicable rules and exchange requirements.

Non-Employee Director Compensation

We have not implemented a formal policy with respect to equity awards granted to our non-employee directors. From time to time, we have granted equity awards to attract individuals to join our board of directors and for their continued service thereon. We did not pay any compensation to any of our non-employee directors in 2022. We plan to reimburse our directors for expenses associated with attending meetings of our board of directors and its committees although we have not previously done so.

On March 9, 2023, our board of directors approved cash compensation in the amount of $10,000.00 per quarter for all non-employee directors who serve and will serve on the Board, so long as they serve on the Board, effective beginning immediately following the IPO.

EXECUTIVE COMPENSATION

Our named executive officers for 2022 were Christian Kopfli, our Chief Executive Officer, and Francis Knuettel II, our Chief Financial Officer, Chief Strategy Officer, Treasurer and Secretary. Francis Knuettel II was appointed in June 2022. The number of equity awards issued presented below does not give effect to the 1-for- Reverse Stock Split in connection with the IPO Transactions.

Summary Compensation Table

The following table provides information regarding the compensation of our named executive officers during the years ended December 31, 2022 and 2021.

Name and Principal Position	Year	Salary	Bonus	Option Awards	Non-Equity Incentive Plan Compensation	All Other Compensation	Total
Christian Kopfli	2022	$ 137,500[1]	$ --	$ 149,633	$ --	$ --	$ 287,133
Chief Executive Officer, President and Chief Financial Officer[2]							
	2021	$ 264,000[1]	$ --	$ --	$ --	$ --	$ 264,000
Francis Knuettel II	2022	$ 30,000	$ --	$ 149,633	$ --	$ --	$ 179,633
Chief Financial Officer							
	2021	$ --	$ --	$ --	$ --	$ --	$ --

(1) Represents the portion of Mr. Kopfli's salary attributable to his services to the Company during the years ended December 31, 2022 and 2021.

(2) Mr. Kopfli stepped down as Chief Financial Officer with hiring of Mr. Knuettel, effective June 10, 2022. In addition, in July 2023, Mr. Knuettel assumed the role of Interim Chief Executive Officer and stepped down as Chief Strategy Officer, and Mr. Kopfli was appointed Vice Chairman and Chief Strategy Officer.

Employment Agreements and Arrangements

Christian Kopfli

We are party to an amended and restated employment agreement with Christian Kopfli, dated July 28, 2023. Pursuant to such agreement, Mr. Kopfli has agreed to serve as our Vice Chairman and Chief Strategy Officer, in consideration for an annualized salary of $275,000, payable in cash at the rate of $5,000 per month (a minimum of $1,125 per week), with the remainder accrued and paid as of the earliest of a sale or liquidation of the Company, the Company's bankruptcy or three days after the approval by the Board of a funded budget with appropriately established milestones subsequent to the effective date of a Form S-1 registration statement ("Post-registration Approval"). Mr. Kopfli also agrees, as of Post-registration Approval, to resign as Chief Executive Officer of Chromocell Corporation although he may continue to service on the Board of Directors of Chromocell Corporation, including as its Board Chair. The employment agreement provides that Mr. Kopfli receive an option to acquire 200,000 shares of our Common Stock, vesting quarterly over 10 quarters and beginning October 1, 2022. This option shall have an exercise price equal to the fair market value of our Common Stock on the date of grant and shall expire on the 10th anniversary of the date of grant. The option was awarded as of January 10, 2023. The employment agreement contemplates an annual bonus, as determined by the Board. The target bonus is 50% of Mr. Kopfli's annualized salary and will be based on achievement of performance goals and objectives agreed to by Mr. Kopfli and the Board in January of each year. The Board may increase the bonus in recognition of performance in excess of the performance objectives. Any bonus shall only be paid if Mr. Kopfli remains employed on the date of payment, which will be no later than March 15 of the year following the year to which the bonus relates. Any bonus for 2022 is payable solely in the Board's discretion.

Pursuant to Mr. Kopfli's employment agreement, in the event he is involuntarily terminated by the Company other than for "Cause" or if he resigns for "Good Reason," he is entitled to receive (i) six months of salary at the same rate existing immediately prior to his termination, (ii) his target bonus, if performance goals and objectives have been established for the year and prorated for the period of service, and (iii) six months of additional vesting credit with respect to any outstanding time-based equity awards. "Cause" and "Good Reason" are each defined in the employment agreement.

Finally, Mr. Kopfli agrees to certain non-solicitation and non-competition provisions for a period of 12 months following termination and to certain confidentiality obligations. Additional terms and conditions are set forth in the employment agreement.

Camden Capital LLC

We entered into a Consultant Agreement with Camden Capital LLC, dated January 10, 2023 (the "Consultant Agreement"). This Consultant Agreement replaces an agreement with Mr. Francis Knuettel II dated June 2, 2022 and pursuant to which, Camden Capital LLC agrees to provide the services of Mr. Knuettel, who shall serve as our Chief Financial and Strategy Officer, Treasurer and Secretary.

Under the Consultant Agreement, Camden Capital LLC accrued a consulting fee for the period June 6, 2022 through August 31, 2022 of $10,000 per month and effective September 1, 2022, began to accrue a consulting fee of $20,000 per month, payable in cash at the rate of $5,000 per month (a minimum of $1,125 per week), with the remainder accrued. All accrued consulting fees are payable as of the earliest of a sale or liquidation of the Company, the Company's bankruptcy or three days after Post-registration Approval. The Consultant Agreement provides for the following equity awards to Camden Capital LLC: (i) an option, awarded as of January 10, 2023, to acquire 200,000 shares of our Common Stock, vesting quarterly over 10 quarters and beginning October 1, 2022, with the option having an exercise price equal to the fair market value of our Common Stock on the date of grant and expiring on the 10th anniversary of the date of grant; (ii) an option, awarded as of January 10, 2023, to acquire 25,000 shares of our Common Stock, vesting 100% upon the sooner of the sale of the Company or Post-registration Approval, with the option having an exercise price equal to the fair market value of our Common Stock on the date of grant and expiring on the 10th anniversary of the date of grant; and (iii) a restricted stock unit ("RSU"), awarded as of January 10, 2023, of 150,000 shares of our Common Stock, vesting 100% on the day after the first trading window that opens after Post-registration Approval.

The Consultant Agreement contemplates an additional consulting fee, as determined by the Board. The potential additional consulting fee is 50% of the annualized consulting fee and will be based on achievement of performance goals and objectives established by the Board in concert with Mr. Knuettel in January of each year. The Board may increase the potential additional consulting fee in recognition of performance in excess of the performance objectives. Any amount shall only be paid if Camden Capital LLC continues to provide consulting services to the Company as of the date of payment, which will be no later than March 15 of the year following the year to which the additional consulting fee relates. Any additional consulting fee for 2022 is payable solely in the Board's discretion.

Pursuant to the Consultant Agreement, in the event the relationship with Camden Capital LLC is involuntarily terminated by the Company other than for "Cause" or if Camden Capital LLC terminates the relationship for "Good Reason," Camden Capital LLC is entitled to receive (i) six months of consulting fees at the same rate existing immediately prior to termination, (ii) a potential additional consulting fee, if performance goals and objectives have been established for the year and prorated for the period of service, and (iii) six months of additional vesting credit with respect to any outstanding time-based equity awards. "Cause" and "Good Reason" are each defined in the Consultant Agreement.

Finally, Camden Capital LLC and Mr. Knuettel agree to certain non-solicitation and non-competition provisions for a period of 12 months following termination of the relationship and to certain confidentiality obligations. Additional terms and conditions are set forth in the Consultant Agreement.

On June 23, 2023, we amended and restated the Consultant Agreement by entering into an Amended and Restated Consultant Agreement with Camden Capital LLC whereby the RSU for 150,000 shares of Common Stock was cancelled, and we agreed to grant Camden Capital LLC an option to acquire 250,000 shares of Common Stock within 30 days of the closing of the IPO. As of June 23, 2023, such RSU for 150,000 shares of our Common Stock had not vested, and no expense was recorded on the Company's financial statements. In addition, from and after June 1, 2023, the consulting fee will be paid in cash by the Company. No other material changes were made to the Consultant Agreement.

Equity and Equity-Based Plans

Outstanding Equity Awards at Fiscal Year-End

The following table provides information regarding the outstanding equity awards of our named executive officers during the year ended December 31, 2022.

	Option Awards					Stock Awards			
Name and Principal Position	**Number of Securities Underlying Unexercised Options Exercisable**	**Number of Securities Underlying Unexercised Options Unexercisable**	**Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options**	**Option Exercise Price**	**Option Expiration Date**	**Number of shares of Common Stock Unvested**	**Market Value of shares of Common Stock Unvested**	**Equity Incentive Plan Awards: Number of Unearned Unvested Shares**	**Equity Incentive Plan Awards: Market or Payout Value of Unearned Unvested Shares**
Christian Kopfli Chief Executive Officer	40,000	160,000	---	$ 2.52	09/30/2032	---	$ ---	---	$ ---
Francis Knuettel II, Chief Financial Officer	40,000	185,000	---	$ 2.52	09/30/2032	---	$ ---	---	$ ---

Equity Incentive Plans

The Chromocell Therapeutics Corporation 2023 Equity Incentive Plan (the "2023 Plan")

On January 10, 2023, our board of directors adopted and submitted for stockholder approval the 2023 Plan, which 2023 Plan was later approved by the Company's stockholders. Prior to the effective date of the registration statement of which this prospectus forms a part, we will amend the 2023 Plan, and submit such amendment for stockholder approval, to increase the number of shares available for issuance thereunder to (after giving effect to the Reverse Stock Split). The following summary of the material features of the 2023 Plan is qualified in its entirety by reference to the complete text of the 2023 Plan, a copy of which is filed with the registration statement of which this prospectus forms a part. The 2023 Plan will terminate on January 10, 2033, in accordance with its terms, although, awards outstanding under the 2023 Plan will continue to be governed by their existing terms after the 2023 Plan's expiration.

Share Reserve. We reserved shares of our Common Stock for issuance under the 2023 Plan (after giving effect to the 1-for- Reverse Stock Split in connection with the IPO Transactions). Unissued shares of Common Stock subject to awards that fail to settle, vest or be fully exercised prior to expiration or other termination shall again become available for grant under the terms of the 2023 Plan.

Administration. Our board of directors currently administers the 2023 Plan. Following the IPO, it is intended that the compensation committee of our board of directors will administer the 2023 Plan. The administrator has complete discretion to make all decisions relating to the 2023 Plan and outstanding awards.

Eligibility. Key employees, non-employee members of our board of directors and other persons who render services of special importance to our management, operation or development are eligible to participate in the 2023 Plan.

Types of Awards. The 2023 Plan provides for the following types of awards granted with respect to shares of our Common Stock:

- incentive and nonqualified stock options to purchase shares of our Common Stock;
- stock appreciation rights, whether settled in cash or our Common Stock;
- direct awards or sales of shares of our Common Stock, with or without restrictions; and
- restricted stock units.

The recipient of an award under the 2023 Plan is referred to as a participant.

Options. The administrator may grant incentive stock options (ISOs) and nonqualified stock options (NSOs) under the 2023 Plan. The administrator determines the number of shares of our Common Stock subject to each option, its exercise price, its duration and the manner and time of exercise; provided, however, that no option may be issued under the 2023 Plan with an exercise price that is less than the fair market value of our Common Stock as of the date the option is granted, and no option issued as an ISO will have a duration that exceeds ten years. ISOs may be issued only to our employees or employees of our corporate subsidiaries, and in the case of a more than ten percent stockholder, must have an exercise price that is at least 110% of the fair market value of our Common Stock as of the date the option is granted, and may not have a duration of more than five years.

The administrator, in its discretion, may provide that any option is subject to vesting limitations that make it exercisable during its entire duration or during any lesser period of time.

The exercise price of an option may be paid in cash, by delivery of a recourse promissory note secured by the Common Stock acquired upon exercise of the option (except that such a loan would not be available to any of our executive officers or directors), by means of a "cashless exercise" procedure in which a broker transmits to us the exercise price in cash, either as a margin loan or against the optionee's notice of exercise and confirmation by us that we will issue and deliver to the broker stock certificates for that number of shares of Common Stock having an aggregate fair market value equal to the exercise price, or agrees to pay the exercise price to us in cash upon our receipt of stock certificates, by delivery of shares of our Common Stock already owned by the optionee, by a "net exercise" in the case of an NSO or by any combination of the methods listed.

Stock Appreciation Rights (SARs). The administrator may also grant SARs to participants on such terms and conditions as it may determine. SARs may be granted separately or in connection with an option. No SAR may be issued under the 2023 Plan with an exercise price that is less than the Fair Market Value of our Common Stock as of the date the SAR is granted, and no SAR will have a duration that exceeds ten years. Upon the exercise of an SAR, the participant is entitled to receive payment equal to the excess of the fair market value, on the date of exercise, of the number of shares of Common Stock for which the SAR is exercised over the exercise price for the Common Stock under a related option or, if there is not a related option, over an amount per share stated in the agreement setting forth the terms and conditions of the SAR.

Payment to the participant may be made in cash or other property, including Common Stock, in accordance with the provisions of the SAR agreement.

Stock Grants. The administrator may make an award in one or more of the following forms of stock grant. Stock grants (including restricted stock units and performance units after settlement) generally will provide the participant with all of the rights of a stockholder of ours, including the right to vote and to receive payment of dividends.

Stock grant without restriction. The administrator may make a stock grant without any restrictions.

Restricted stock and restricted stock units ("RSUs"). The administrator may issue shares of our Common Stock with restrictions determined by the administrator in its discretion. Restrictions could include conditions that require the participant to forfeit the shares in the event that the participant ceases to provide services to us or any of our affiliates thereof before a stated time. RSUs are similar to restricted stock except that no shares are actually issued to the participant on the RSU grant date. Rather, and provided all applicable restrictions are satisfied, shares of Common Stock are generally delivered at settlement of the award. The period of restriction, the number of shares of restricted stock or the number of RSUs granted, the purchase price, if any, and such other conditions and/or restrictions as the administrator may establish will be set forth in an award agreement. Participants holding RSUs will not have voting rights or other rights as a stockholder until any shares related to the RSU are issued. After all conditions and restrictions applicable to restricted shares and/or RSUs have been satisfied or have lapsed, shares of restricted stock will become freely transferable and RSUs may be settled in cash, in shares of our Common Stock or in some combination of cash and shares of our Common Stock, as determined by the administrator and stated in the award agreement.

Performance shares and performance share units ("PSUs"). With respect to an award of performance shares and/or PSUs, the administrator will establish performance periods and performance goals. The extent to which a participant achieves their performance goals during the applicable performance period will determine the value and/or the number of performance shares and/or PSUs earned by such participant. Payment of earned performance shares and/or PSUs will be in cash, shares of our Common Stock or some combination of cash and shares of our Common Stock, as determined by the administrator and stated in the award agreement.

Other awards. The administrator may issue other types of equity-based or equity-related awards under the 2023 Plan, on such terms and conditions as the administrator shall determine in its discretion.

Dividends. Participants holding restricted stock and performance shares will be entitled to receive dividends on our shares, provided that in the discretion of the administrator, participants will not be entitled to dividends with respect to unvested restricted stock and performance shares until the stock or shares vest, respectively. Dividend equivalent units may, but are not required to, be issued with respect to RSUs or PSUs and may be paid in cash, additional shares of our Common Stock or a combination on the date the shares are delivered, all as determined by the administrator and stated in the award agreement.

Effect of certain corporate transactions. In the event of a stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution on our Common Stock other than an ordinary cash dividend, the administrator shall make equitable adjustments to awards as it, in its sole discretion, deems appropriate. In the case of (1) a merger or consolidation of the Company with or into another entity pursuant to which all of our Common Stock is cancelled or converted into or exchanged for the right to receive cash, securities or other property, (2) any transfer or disposition of all of our Common Stock for cash, securities or other property pursuant to a share exchange or other transaction, (3) the sale or other disposition of all or substantially all of the Company's assets or (4) any liquidation or dissolution of the Company, the administrator may take any of a number of actions including providing for the assumption of awards, the termination of awards (with advance notice permitting exercise), Awards to become exercisable at or prior to the event, the liquidation of awards or any combination of the foregoing.

Amendments to the 2023 Plan. Our board of directors may amend, suspend or terminate the 2023 Plan in whole or in part at any time provided that stockholder approval shall be required to the extent necessary under the rules applicable to ISOs or under NYSE American or other applicable securities exchange rules.

The administrator may, without stockholder approval, amend the 2023 Plan as necessary to enable awards to qualify for favorable foreign tax, securities or other treatment in the case of a participant who is subject to a jurisdiction outside the United States.

Amendments or Termination. The administrator may at any time amend, suspect or terminate the 2023 Plan, subject to stockholder approval in the case of an amendment if the amendment increases the number of shares available for issuance or materially changes the class of persons eligible to receive incentive stock options. The 2023 Plan will terminate automatically ten years after the later of the date when our board of directors adopts the plan or the date when our board of directors most recently approved an increase in the number of shares of Common Stock reserved thereunder which was also approved by our stockholders, and as noted above, any awards outstanding under the 2023 Plan upon termination will remain outstanding and will continue to be governed by their existing terms.

On January 10, 2023, pursuant to the 2023 Plan, we granted: (a) options to purchase up to an aggregate of 1,275,000 shares of Common Stock to employees and directors and (b) 150,000 RSUs to employees. On March 9, 2023, pursuant to the 2023 Plan, we granted an option to purchase up to 135,000 shares of Common Stock to a director. On June 23, 2023, we granted options to acquire 468,000 shares of Common Stock to employees (inclusive of options that have not yet been granted but the Company has agreed to grant in connection with the closing of IPO) and canceled an RSU for 150,000 shares issued to an employee on January 10, 2023. The number of equity awards in the preceding sentences does not give effect to the 1-for- Reverse Stock Split in connection with the IPO Transactions.

The offers and sales of the above securities were deemed to be exempt from registration under the Securities Act in reliance upon Section 4(a)(2) of the Securities Act or Regulation D promulgated thereunder, or Rule 701 promulgated under Section 3(b) of the Securities Act, as transactions by an issuer not involving any public offering or pursuant to benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of the above securities represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof.

Limitations on Liability and Indemnification Matters

Upon the closing of the IPO, our amended and restated certificate of incorporation will contain provisions that limit the liability of our current and former directors for monetary damages to the fullest extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to the corporation or its stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the DGCL; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not apply to liabilities arising under federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission.

Our amended and restated certificate of incorporation and our bylaws that will be in effect upon the closing of the IPO will provide that we are required to indemnify our directors to the fullest extent permitted by Delaware law. Our bylaws will also provide that, upon satisfaction of certain conditions, we are required to advance expenses incurred by a director in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under the provisions of Delaware law. Our bylaws will also provide our board of directors with discretion to indemnify our officers and employees when determined appropriate by the board.

We have entered into indemnification agreements with each of our executive officers and directors. With certain exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and executive officers. We also maintain customary directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and bylaws may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and other stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions. At present, there is no pending litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought and we are not aware of any threatened litigation that may result in claims for indemnification.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted for our directors, executive officers or persons controlling us, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Rule 10b5-1 Sales Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our Common Stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from them. The director or officer may amend a Rule 10b5-1 plan in some circumstances and may terminate a plan at any time. Our directors and executive officers also may buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material nonpublic information subject to compliance with the terms of our insider trading policy. Prior to 180 days after the effective date of the registration statement of which this prospectus forms a part, subject to early termination, the sale of any shares under such plans would be prohibited by the lock-up agreement that the director or officer has entered into with the underwriters.

CERTAIN RELATIONSHIPS AND RELATED PARTY AND OTHER TRANSACTIONS

The following is a summary of transactions among related parties that occurred since the Company's incorporation, and any ongoing related party relationships:

In May 2021, Chromocell Holdings, the Company and Flamands International Holdings LLC ("Flamands") commenced negotiations regarding a three-party agreement whereby Chromocell Holdings would spin off assets and liabilities associated with its therapeutics operations to the Company and Flamands would provide funding to the Company. As the parties contemplated various transactional structures, an agreement was never effectuated because significant details concerning the assumption of liabilities were never finalized. Chromocell Holdings instead provided multiple advances to the Company for its operations from May 2021 through August 2022. At December 31, 2021, all amounts previously received from Chromocell Holdings by the Company were recorded as advances payable on the Company's financial statements.

On August 10, 2022, the Company and Chromocell Holdings entered into the Contribution Agreement effecting (1) the contribution by Chromocell Holdings to the Company of assets related to Chromocell Holding's Therapeutics Business, including all intellectual property related to Chromocell Holding's NaV1.7 program and its clinical-stage CC8464 lead compound, (2) assumption by the Company of direct liabilities related to Chromocell Holding's historical Therapeutics Business in the amount of $1,556,323 as well as a cash payment by the Company to Chromocell Holdings of $597,038 within three business days of the closing of the IPO and (3) the issuance by the Company to Chromocell Holdings of 10,000,000 shares of its common stock and 600,000 shares of its Series A Preferred Stock.

On August 3, 2023, we entered into the Holdings Side Letter to the Contribution Agreement. Pursuant to the Holdings Side Letter, upon closing of the IPO: (a) Chromocell Holdings will re-assume all $1.5 million in direct liabilities previously assumed by the Company in accordance with the Contribution Agreement, (b) Chromocell Holdings will waive the Company's obligations to make a cash payment in the amount of $0.6 million to Chromocell Holdings, and (c) in consideration thereof, we will issue to Chromocell Holdings 2,600 shares of Series C Preferred Stock.

On April 17, 2023, Chromocell Holdings forfeited 1,203,704 shares of Common Stock (shares of Common Stock after giving effect to the Reverse Stock Split) as Chromocell Holdings did not fund its pro rata allocation in the April Bridge Financing, per the terms governing the April Bridge Financing.

On December 6, 2022, the Company and Mr. Todd Davis, one of our directors, entered into a promissory note (the "Director Note") with a face amount of $175,000 and purchase price of $100,000. The Director Note matures on December 31, 2023 or, if earlier to occur, upon the closing of an underwritten offering of securities resulting in at least $15 million in gross proceeds. Mr. Davis, as lender, has the right but not the obligation to subscribe to the underwritten offering by presenting the Director Note in whole or in part to purchase such securities as legal tender therefor, on a dollar-for-dollar basis based upon the offering price of such securities to the public. The Director Note bears no interest except in the case of certain events of default.

On April 17, 2023, we entered into a April Bridge Financing for working capital purposes with various accredited investors, all of whom are pre-existing stockholders, including Chromocell Holdings, Boswell Prayer Ltd., Motif Pharmaceuticals Ltd, Aperture Healthcare Ventures Ltd., MDB Merchants Park LLC, Balmoral Financial Group LLC and AME EQUITIES LLC (each a related party based on share ownership in excess of 5% or resulting from a principal at one of the entities being on the Company's board of directors) in the aggregate principal amount of $393,808. During the six months ended June 30, 2023, the Company received $166,903 in Advances from certain participating investors. Such Advances accrued interest at a rate of eight percent (8%) per annum until close of the April Bridge Financing on April 17, 2023, for a total of $1,153 in aggregate interest on all Advances during the six months ended June 30 (and of $1,870 in aggregate interest on all Advances through close of the April Bridge Financing). The April Bridge Financing consists of senior secured convertible notes that have a maturity date of October 17, 2023. Such notes accrue interest on the unpaid principal amount at a rate of eight percent (8%) per annum and will automatically convert into shares of Common Stock at the IPO at a twenty percent (20%) discount to the price per IPO Share (assuming an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus).

On September 1, 2023, we entered into the September Bridge Financing with various accredited investors, certain of which are pre-existing stockholders, including Aperture Healthcare Ventures Ltd., MDB Merchants Park LLC, Balmoral Financial Group LLC and AME EQUITIES LLC (each a related party based on share ownership in excess of 5% or resulting from a principal at one of the entities being on the Company's board of directors) in the aggregate principal amount of $198,128. The September Bridge Financing consists of senior secured convertible notes that have a maturity date of March 1, 2024. Such notes accrue interest on the unpaid principal amount at a rate of eight percent (8%) per annum and will automatically convert into shares of Common Stock in connection with the IPO at a twenty percent (20%) discount to the price per IPO Share (shares, assuming an initial public offering price of $ per IPO Share, the midpoint of the price range set forth on the cover page of the IPO Prospectus). The senior secured convertible notes issued in the September Bridge Financing are secured by a security interest in all of our assets (including our patents and intellectual property licenses). In connection with the September Bridge Financing, on September 1, 2023, we also entered into a securities purchase agreement with holders of the notes, pursuant to which we are required to file a registration statement within 180 calendar days after consummation of the IPO, providing for the resale of Common Stock received by holders of the notes upon conversion of such notes. Additionally, entered into a subordination and intercreditor agreement, effective September 1, 2023, with the holders of the senior secured convertible notes issued in the April Bridge Financing, pursuant to which those notes and certain liens of the Company would be subordinated to the rights of the holders of the notes issued in the September Bridge Financing.

Review, Approval or Ratification of Transactions with Related Parties

In connection with the IPO, we adopted a written related-person transactions policy that provides that our executive officers, directors, nominees for election as a director, beneficial owners of more than 5% of our Common Stock and any members of the immediate family of the foregoing persons, are not permitted to enter into a material related-person transaction with us without the review and approval of our audit committee, or a committee composed solely of independent directors in the event it is inappropriate for our audit committee to review such transaction due to a conflict of interest. The policy provides that any request for us to enter into a transaction with an executive officer, director, nominee for election as a director, beneficial owner of more than 5% of our Common Stock or with any of their immediate family members or affiliates, in which the amount involved exceeds the lesser of (i) $120,000 or (ii) one percent of the average of the Company's total assets at year-end for the last two completed fiscal years will be presented to our audit committee for review, consideration and approval. In approving or rejecting any such proposal, we expect that our audit committee will consider the relevant facts and circumstances available and deemed relevant to the audit committee, including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related person's interest in the transaction.

PRINCIPAL STOCKHOLDERS

The following table sets forth information regarding beneficial ownership of our Common Stock as of , 2023, by:

- each person or group of affiliated persons known by us to be the beneficial owner of more than 5% of our Common Stock and Series B Preferred Stock;
- each of our named executive officers;
- each of our directors; and
- all of our executive officers and directors as a group.

We have determined beneficial ownership in accordance with the rules of the SEC and the information is not necessarily indicative of beneficial ownership for any other purpose. Unless otherwise indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with respect to all shares of Common Stock and Series B Preferred Stock that they beneficially own, subject to community property laws where applicable. In computing the number of shares of our Common Stock and Series B Preferred Stock beneficially owned by a person and the percentage ownership of that person, we deemed outstanding shares of our Common Stock subject to convertible securities, options or warrants held by that person that are currently convertible or exercisable or convertible or exercisable within 60 days of , 2023. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person.

Percentage computations prior to the IPO are based on approximately shares of our Common Stock outstanding as of , 2023 and an aggregate of shares of Series B Preferred Stock outstanding as of , 2023 (in each case, after giving effect to the IPO Transactions). Percentage computations after the IPO are based on approximately shares of our Common Stock outstanding immediately following the IPO and shares of Series B Preferred Stock, and assume no conversion of such shares of Series B Preferred Stock, and no exercise of the Underwriter's option to purchase additional shares of Common Stock. Beneficial ownership representing less than 1% is denoted with an asterisk (*).

Unless otherwise indicated, the address of each beneficial owner listed on the table below is c/o Chromocell Therapeutics Corporation, 4400 Route 9 South, Suite 1000, Freehold, NJ 07728.

	Shares Beneficially Owned Prior to the IPO					Shares Beneficially Owned After the IPO				
	Common Stock		Preferred Stock			Common Stock		Preferred Stock		
Name of Beneficial Owner	Number	Percentage	Number	Percentage	Total Voting Power Percentage (1)	Number	Percentage	Number	Percentage	Total Voting Power Percentage (1)
Named Executive Officers and Directors										
Christian Kopfli[2]		%			%		%			%
Francis Knuettel II[3]		%			%		%			%
Ezra Friedberg[4]		%			%		%			%
Todd Davis[5]		%			%		%			%
Richard Malamut[6]		%			%		%			%
Chia-Lin Simmons[7]		%			%		%			%
Eric Lang[8]		%			%		%			%
All executive officers and directors as a group (7 persons)		%			%		%			%
5% Stockholders										
Chromocell Corporation[9]		%			%		%			%
Boswell Prayer Ltd[10]		%			%		%			%
Motif Pharmaceuticals Ltd.[11]		%			%		%			%
Balmoral Financial Group LLC[12]		%			%		%			%
AME Equities LLC[13]		%			%		%			%
Aperture Healthcare Ventures Ltd.[14]		%			%		%			%
[15]		%			%		%			%

[1] Percentage of total voting power represents voting power with respect to all shares of Common Stock and Series B Preferred Stock. The holders of our Common Stock are entitled to one vote per share. Holders of our Series B Preferred Stock vote together with holders of our Common Stock on an as converted basis, assuming $4.50 per share of Common Stock, subject to beneficial ownership limitations as set forth in the Certificate of Designations for the Series B Preferred Stock.

[2] For Mr. Kopfli, includes shares of Common Stock underlying stock options that are currently exercisable or exercisable within 60 days of , 2023. In addition, Mr. Kopfli serves on the board of directors of Chromocell Corporation and, accordingly, may also be deemed to beneficially own the shares of Common Stock held by Chromocell Corporation.

[3] For Mr. Knuettel, includes shares of Common Stock underlying stock options that are currently exercisable or exercisable within 60 days of , 2023 and, immediately following the IPO, includes an additional shares of Common Stock underlying stock options exercisable upon the closing of the IPO and shares of Common Stock underlying stock options that will become exercisable within 30 days of the close of the IPO.

[4] For Mr. Friedberg, includes shares of Common Stock underlying stock options that are currently exercisable or exercisable within 60 days of , 2023. In addition, Mr. Friedberg serves as a manager of Balmoral Financial Group LLC ("Balmoral") and, accordingly, may also be deemed to beneficially own the shares of Common Stock held by Balmoral.

[5] For Mr. Davis, includes shares of Common Stock underlying stock options that are currently exercisable or exercisable within 60 days of , 2023 and, immediately following the IPO, includes an additional shares of Common Stock issued in the IPO in full satisfaction of the Company's obligations under the Director Note.

[6] For Mr. Malamut, includes shares of Common Stock underlying stock options that are currently exercisable or exercisable within 60 days of , 2023.

[7] For Ms. Simmons, includes shares of Common Stock underlying stock options that are currently exercisable or exercisable within 60 days of , 2023.

(8) For Mr. Lang, includes shares of Common Stock underlying stock options that are currently exercisable or exercisable within 60 days of , 2023.

(9) For Chromocell Corporation, number of shares of Common Stock beneficially owned does not include shares of Common Stock issued upon the conversion of shares of Series C Preferred Stock, assuming a price per IPO Share of $, the midpoint of the price range set forth on the cover page of the IPO Prospectus. Such shares of Series C Preferred Stock contain a beneficial ownership limitation providing that the holder of the Series C Preferred Stock will not have the right to convert any of the Series C Preferred Stock if such holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of Common Stock outstanding immediately after giving effect to such conversion. The principal executive offices of Chromocell Corporation are 685 US Highway One, North Brunswick, New Jersey 08902.

(10) The principal executive offices of Boswell Prayer Ltd. are 145 Adelaide Street West, Toronto ON M5H 4E5, Canada.

(11) The principal executive offices of Motif Pharmaceuticals Ltd. is 25 and 28 North Wall Quay, Dublin 1, Ireland.

(12) The principal executive offices of Balmoral Financial Group LLC is 106 Court Road, Suite 202, Baltimore, MD 21208.

(13) The principal executive offices of AME Equities LLC is 3012 Luke Crossing Drive, Charlotte, NC 28226.

(14) The principal executive offices of Aperture Healthcare Ventures Ltd. is 970 Lawrence Ave W. Suite 904, Toronto, ON M6A 3B6, Canada.

(15) The principal executive offices of is .

DESCRIPTION OF CAPITAL STOCK

Upon the completion of the IPO, our authorized capital stock will consist of shares of Common Stock and shares of preferred stock, $0.0001 par value per share (5,000 of which will have been designated as Series B Convertible Preferred Stock to the extent we elect to issue such Series B Convertible Preferred Stock, as discussed below, and 5,000 of which will have been designated as Series C Convertible Redeemable Preferred Stock). The following description summarizes the most important terms of our capital stock after giving effect to the close of the IPO. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description, you should refer to our certificate of incorporation and bylaws, each as amended, which will be included as exhibits to the registration statement of which this prospectus forms a part.

Common Stock

Authorized Shares

The Company has authorized for issuance an aggregate of shares of Common Stock.

Dividend Rights

The holders of our Common Stock are entitled to receive dividends out of funds legally available if our board of directors, in its discretion, determines to issue dividends and then only at the times and in the amounts that our board of directors may determine. See "Dividend Policy" above.

Voting Rights

Holders of our Common Stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders. We have not provided for cumulative voting for the election of directors.

No Preemptive or Similar Rights

Our Common Stock is not entitled to preemptive rights, and is not subject to conversion, redemption or sinking fund provisions.

Liquidation Rights

Any distribution or payment made to holders of Common Stock in the event of a dissolution, liquidation or winding up of the Company will be made in a pro rata fashion on the basis of the number of shares of Common Stock held by each such holder.

Preferred Stock

Our board of directors has the authority, without further action by our stockholders, to issue up to shares of preferred stock in one or more classes or series and to fix the designations, rights, preferences, privileges and restrictions thereof, without further vote or action by the stockholder. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such class or series, any or all of which may be greater than the rights of Common Stock. The issuance of our preferred stock could adversely affect the voting power of holders of Common Stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of the Company or other corporate action.

Series B Convertible Preferred Stock

On , 2023, we entered into the Series B Securities Purchase Agreement with the Series B Investors pursuant to which (i) the Series B Investor agreed to purchase, upon close of the IPO and at our election, an aggregate of up to shares of Series B Preferred Stock for a purchase price of $1,000 per share, and (ii) in consideration therefor, we will re-issue out of our treasury stock, upon close of the IPO and regardless of whether we issue any shares of Series B Preferred Stock, Standby Shares. The Company is not obligated to sell all or any portion of the Series B Preferred Stock pursuant to the Series B Securities Purchase Agreement.

If we elect to issue Series B Preferred Stock in accordance with the Series B Securities Purchase Agreement, we will file, prior to close of the IPO, the Series B Certificate of Designation with the Secretary of State of the State of Delaware designating 5,000 shares of preferred stock as Series B Preferred Stock.

Dividend Rights

The Series B Preferred Stock dividend will be cumulative and accruing at the rate of ten percent (10%) per annum, payable only on redemption by the Company, or on conversion by the holders thereof, and shall be computed on the basis of a 360-day year and twelve 30-day months. The dividend rate will automatically increase to eighteen percent (18%) per annum from and after the occurrence and during the continuance of any Triggering Event (as defined in the Series B Certificate of Designation). Dividend payments on the Series B Preferred Stock will be guaranteed for the first year after issuance. See "–Redemption Rights" and "–Conversion" below.

Voting Rights

Holders of our Series B Preferred Stock vote together with holders of our Common Stock on an as converted basis, assuming $4.50 per share of Common Stock, subject to the beneficial ownership limitations discussed below. As long as any shares of Series B Preferred Stock are outstanding, we will not, without the affirmative vote of the holders of a majority of the then outstanding shares of Series B Preferred Stock voting as a separate class with one vote per share, among other things, (a) alter or change adversely the powers, preferences or rights given to the Series B Preferred Stock or alter or amend the Series B Certificate of Designation, (b) increase the number of authorized shares of Series B Preferred Stock, (c) enter into any merger agreements, (d) incur additional indebtedness (other than Permitted Debt), (e) issue additional preferred equity, (f) change the nature of the business, (g) declare or pay any dividends on our Common Stock or Series A Preferred Stock and Series C Preferred Stock, (h) reprice, repay or repurchase the Series A Preferred Stock or Series C Preferred Stock or (i) enter into any agreement with respect to any of the foregoing.

Redemption Rights

The Company at its option shall have the right to redeem (unless otherwise prevented by law), a portion or all of the outstanding shares of Series B Preferred Stock. The Company shall pay in cash an amount equal to the Series B Liquidation Preference (as defined below), plus a redemption premium (the "Redemption Premium") on the Series B Liquidation Preference, plus an amount equal to any accrued and unpaid dividends on such shares of Series B Preferred Stock. The Redemption Premium shall be 7.5% of the Series B Liquidation Preference being redeemed if the redemption occurs prior to 180 days (inclusive) after the issuance date of such shares of Series B Preferred Stock and 10% if the redemption occurs after 180 days after the issuance date of such shares of Series B Preferred Stock.

Conversion

Each share of Series B Preferred Stock will be convertible at any time at the holder's option into a number of shares of Common Stock equal to the quotient obtained by dividing (i) the sum obtained by adding (a) the Series B Liquidation Preference and (b) any accrued and unpaid dividends on such share of Series B Preferred Stock by (ii)

110% of the price per IPO Share issued to the public in connection with the IPO. If we fail to timely convert, we shall pay in cash to the holder a late fee equal to two percent (2%) of the product of (x) the aggregate number of shares of Common Stock not timely issued and (y) the closing bid price of our Common Stock immediately preceding the last possible date to timely convert.

Liquidation Rights

The shares of Series B Preferred Stock will be entitled to a liquidation preference of $1,000 per share of Series B Preferred Stock (the "Series B Liquidation Preference"), and will rank pari passu with the Series C Preferred Stock. In the event that we voluntarily or involuntarily liquidate, dissolve, or wind up our affairs, holders of the shares of Series B Preferred Stock will be entitled to receive out of our assets available for distribution to stockholders, after satisfaction of liabilities and obligations to creditors, if any, and subject to the rights of holders of any shares of capital stock then outstanding ranking senior to or on parity with the Series B Preferred Stock with respect to distributions upon the voluntary or involuntary liquidation, dissolution, or winding-up of our business and affairs, including the Series C Preferred Stock, and before we make any distribution or payment out of our assets to the holders of our Common Stock or any other class or series of our capital stock ranking junior to the Series B Preferred Stock with respect to distributions upon our liquidation, dissolution, or winding-up, an amount per share equal to the greater of (i) the Series B Liquidation Preference or (ii) the amount holders of the shares of Series B Preferred Stock would receive if such holder converted immediately prior to the date of such payment, including accrued and unpaid dividends.

Beneficial Ownership Limitation

The Series B Preferred Stock will be subject to a 4.99% beneficial ownership limitation that prohibits the holder from converting any portion of the Series B Preferred Stock if, following such conversion, the holder's ownership of Common Stock would exceed that ownership percentage. The beneficial ownership limitation may be increased to 9.99% upon election by a holder, provided that any increase in the beneficial ownership limitation shall not be effective until 61 days following notice to us.

Registration Rights

Pursuant to the Series B Securities Purchase Agreement, we are obligated to file a registration statement within 180 days of the close of the IPO registering for resale the Standby Shares and the shares of Common Stock issuable upon conversion of the Series B Preferred Stock, if issued.

Series C Convertible Redeemable Preferred Stock

Upon closing of the IPO, we will have 5,000 shares of preferred stock designated as Series C Preferred Stock.

Dividend Rights

The Series C Preferred Stock has no dividend rights.

Voting Rights

Holders of our Series C Preferred Stock are not entitled to vote, unless otherwise permitted by the DGCL.

Redemption Rights

The Company at its option shall have the right to redeem a portion or all of the outstanding shares of Series C Preferred Stock at any time; provided, however, that we may not redeem any share of Series C Preferred Stock prior to the expiration of the lock-up period associated with this IPO without first obtaining consent of the holder of shares being redeemed. The Company shall pay in cash an amount equal to the Stated Value (as defined in the Certificate of Designation of Series C Preferred Stock) per share of Series C Preferred Stock redeemed.

Conversion

Each share of Series C Preferred Stock will be convertible at any time at the holder's option into a number of shares of Common Stock determined by (i) multiplying the Stated Value of the Series C Preferred Stock, and then (ii) dividing the value obtained from the preceding clause (i) by 125% of the price per IPO Share issued to the public in connection with the IPO. If the Common Stock trades for twenty (20) consecutive trading days above 175% of the price per IPO Share issued to the public in connection with the IPO, each share of Series C Preferred Stock shall mandatorily convert into a number of shares of Common Stock equal to the result by multiplying 120% with the quotient obtained by dividing the Stated Value by the price per IPO Share issued to the public in connection with the IPO.

Liquidation Rights

The shares of Series C Preferred Stock will be entitled to a liquidation preference of $1,000 per share of Series C Preferred Stock (the "Series C Liquidation Preference"), and will rank pari passu with the Series B Preferred Stock in terms of liquidation preference (if the Series B Preferred Stock is issued, as noted above). In the event that we voluntarily or involuntarily liquidate, dissolve, or wind up our affairs, holders of the shares of Series C Preferred Stock are entitled to receive out of our assets available for distribution to stockholders, after satisfaction of liabilities and obligations to creditors, if any, and subject to the rights of holders of any shares of capital stock then outstanding ranking senior to or on parity with the Series C Preferred Stock with respect to distributions upon the voluntary or involuntary liquidation, dissolution, or winding-up of our business and affairs, and before we make any distribution or payment out of our assets to the holders of our Common Stock or any other class or series of our capital stock ranking junior to the Series C Preferred Stock with respect to distributions upon our liquidation, dissolution, or winding-up, an amount per share equal to the Series C Liquidation Preference.

Beneficial Ownership Limitation

The Series C Preferred Stock is subject to a 4.99% beneficial ownership limitation that prohibits the conversion of any portion of the Series C Preferred Stock if, following such conversion, the holder's ownership of Common Stock would exceed that ownership percentage. The beneficial ownership limitation may be increased to 9.99% upon election by a holder, provided that any increase in the beneficial ownership limitation shall not be effective until 61 days following notice to us.

Anti-Takeover Provisions

The provisions of Delaware law, our certificate of incorporation and our bylaws, as in effect immediately prior to the completion of the IPO, could have the effect of delaying, deferring or discouraging another person from acquiring control of us. These provisions, which are summarized below, may have the effect of discouraging takeover bids. They are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms.

Delaware Law

We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. In general, Section 203 of the DGCL prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years following the date on which the person became an interested stockholder unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

- the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder: (i) shares owned by persons who are directors and also officers; and (ii) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- at or subsequent to the date of the transaction, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66.67% of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction or series of transactions together resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation's outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We also anticipate that Section 203 of the DGCL may also discourage attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

Certificate of Incorporation and Bylaws Provisions

Our certificate of incorporation and our bylaws, as in effect immediately prior to completion of the IPO, include a number of provisions that could deter hostile takeovers or delay or prevent changes in control of our company, including the following:

- *Board of Directors Vacancies*. Our certificate of incorporation and bylaws will authorize only our board of directors to fill vacant directorships, including newly created seats. In addition, the number of directors constituting our board of directors will be permitted to be set only by a resolution adopted by a majority vote of our entire board of directors. These provisions would prevent a stockholder from increasing the size of our board of directors and then gaining control of our board of directors by filling the resulting vacancies with its own nominees. This makes it more difficult to change the composition of our board of directors but promotes continuity of management.

- *Stockholder Action; Special Meetings of Stockholders*. Our certificate of incorporation will provide that our stockholders may not take action by written consent but may only take action at annual or special meetings of our stockholders. As a result, a holder controlling a majority of our capital stock would not be able to amend our bylaws or remove directors without holding a meeting of our stockholders called in accordance with our bylaws. Further, our bylaws and certificate of incorporation will provide that special meetings of our stockholders may be called only by a majority of our board of directors, the chairman of our board of directors, or our Chief Executive Officer, thus prohibiting a stockholder from calling a special meeting. These provisions might delay the ability of our stockholders to force consideration of a proposal or for stockholders controlling a majority of our capital stock to take any action, including the removal of directors.

- *Advance Notice Requirements for Stockholder Proposals and Director Nominations*. Our bylaws will provide advance notice procedures for stockholders seeking to bring business before our annual meeting of stockholders or to nominate candidates for election as directors at our annual meeting of stockholders. Our bylaws also will specify certain requirements regarding the form and content of a stockholder's notice. These provisions might preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders if the proper procedures are not followed. We expect that these provisions might also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of the Company.

- *No Cumulative Voting*. The DGCL provides that stockholders are not entitled to the right to cumulate votes in the election of directors unless a corporation's certificate of incorporation provides otherwise. Our certificate of incorporation will not provide for cumulative voting.

- *Directors Removed Only for Cause*. Our certificate of incorporation will provide that stockholders may remove directors only for cause and only by the affirmative vote of the holders of at least two-thirds of our outstanding Common Stock.

- *Amendment of Charter Provisions*. Any amendment of the above expected provisions in our certificate of incorporation would require approval by holders of at least two-thirds of our outstanding Common Stock.

- *Issuance of Undesignated Preferred Stock* Our board of directors has the authority, without further action by the stockholders, to issue up to shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by our board of directors. The existence of authorized but unissued shares of preferred stock would enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or other means.

- *Choice of Forum*. Our certificate of incorporation will provide that the Court of Chancery of the State of Delaware will be the exclusive forum for: any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the DGCL, our certificate of incorporation or our bylaws; any action to interpret, apply, enforce or determine the validity of our certificate of incorporation or our bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. Notwithstanding the foregoing, the exclusive forum provision does not apply to suits brought to enforce any liability or duty created by the Securities Act, the Exchange Act or any other claim for which the federal courts have exclusive or concurrent jurisdiction. Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act of the rules and regulations thereunder, and Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder, and notwithstanding the provisions of our certificate of incorporation and our bylaws, compliance with the federal securities laws and the rules and regulations thereunder may not be waived by our investors. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable.

Transfer Agent and Registrar

Upon the completion of the IPO, the transfer agent and registrar for our Common Stock will be VStock Transfer, LLC. The transfer agent's address 18 Lafayette Place, Woodmere, NY 11598, and its telephone number is (212) 828-8436. Our shares of Common Stock will be issued in uncertificated form only, subject to limited circumstances.

Market Listing

We intend to apply to list our Common Stock on the NYSE American under the symbol "CHRO."

SHARES ELIGIBLE FOR FUTURE SALE

Prior to the IPO, there has not been a public market for shares of our Common Stock, and we cannot predict the effect, if any, that market sales of shares of our Common Stock or the availability of shares of our Common Stock for sale will have on the market price of our Common Stock prevailing from time to time. Nevertheless, sales of substantial amounts of our Common Stock, including shares issued upon exercise or conversion of outstanding options, warrants and/or convertible securities, in the public market following this offering could adversely affect market prices prevailing from time to time and could impair our ability to raise capital through the sale of our equity securities.

After giving effect to the IPO Transactions and sale of IPO Shares in the IPO, we will have outstanding shares of Common Stock. All of the IPO Shares sold in the IPO will be immediately tradable without restriction under the Securities Act of 1933, as amended, or the Securities Act, except for any shares held by "affiliates," as that term is defined in Rule 144 under the Securities Act, or Rule 144.

The remaining outstanding shares of our Common Stock, other than the Stockholder Shares covered by the Resale Prospectus, will be deemed "restricted securities" as defined in Rule 144. Restricted securities may be sold in the public market only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rule 144 or Rule 701 promulgated under the Securities Act, which rules are summarized below.

All of our directors, executive officers and, other than as indicated below, all holders of our capital stock prior to the IPO, have entered into lock-up agreements with the underwriters pursuant to which they have agreed, subject to specific exceptions, not to sell any of shares of Common Stock for at least six months following the effective date of the registration statement of which this prospectus forms a part, as described below. Notwithstanding the foregoing, the Holder of the 80,000 Holder Shares (Holder Shares, after giving effect to the Reverse Stock Split) issued pursuant to the Investor Note Side Letters will not be subject to such lock-up restrictions (but will be subject to the Leak-Out Restriction with the Company).

In addition, pursuant to the securities purchase agreement in connection with the Bridge Financings, we will file a registration statement within 180 calendar days after consummation of the IPO, providing for the resale of Common Stock received by holders of the senior secured convertible notes upon conversion of such notes.

Pursuant to the Series B Securities Purchase Agreement, we are obligated to file a registration statement within 180 days of the close of the IPO registering for resale the Standby Shares and the shares of Common Stock issuable upon conversion of the Series B Preferred Stock.

Lock-Up Agreements

All of our directors, executive officers and, other than as indicated above, all holders of our capital stock prior to the IPO, are subject to lock-up agreements that, subject to certain exceptions, prohibit them from directly or indirectly offering, pledging, selling, contracting to sell, selling any option or contract to purchase, purchasing any option or contract to purchase, granting any option, right or warrant to purchase or otherwise transferring or disposing of any shares of Common Stock, options to acquire shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, whether now owned or hereafter acquired, or entering into any swap or any other agreement or any transaction that transfer, in whole or in part, directly or indirectly, the economic consequence of ownership, for a period of six months following the effective date of the registration statement of which this prospectus forms a part, without the prior written consent of the underwriters. These agreements are described in the section entitled "Underwriting."

Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to public company reporting requirements for at least 90 days, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares of Common Stock proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates, is entitled to sell such shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares of Common Stock proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person would be entitled to sell such shares without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares on behalf of our affiliates are entitled to sell upon expiration of the lock-up agreements described above, within any three-month period, a number of shares of Common Stock that does not exceed the greater of:

- 1% of the number of shares of our Common Stock then outstanding, which will equal approximately shares of Common Stock immediately after the IPO; or
- the average weekly trading volume of the Common Stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Sales under Rule 144 by our affiliates or persons selling shares of Common Stock on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

Rule 701

Rule 701 generally allows a stockholder who purchased shares of Common Stock pursuant to a written compensatory plan or contract and who is not deemed to have been an affiliate of the Company during the immediately preceding 90 days to sell such shares in reliance upon Rule 144, but without being required to comply with the public information, holding period, volume limitation or notice provisions of Rule 144. Rule 701 also permits affiliates of the Company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required by that rule to wait until 90 days after the date of this prospectus before selling such shares pursuant to Rule 701 and, subject to the exceptions noted above, are subject to the lock-up agreements described above.

Equity Incentive Awards

We intend to file a registration statement on Form S-8 under the Securities Act covering all of the shares of Common Stock subject to outstanding options and the shares of Common Stock reserved for issuance under our 2023 Plan. We expect to file a registration statement covering such shares issuable under the 2023 Plan as soon as permitted under the Securities Act. Upon effectiveness, the shares of Common Stock covered by a registration statement on Form S-8 will generally be eligible for sale in the public market, subject to the contractual and legal descriptions described above.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following is a summary of the material U.S. federal income tax considerations relating to the purchase, ownership and disposition of our shares of Common Stock, but is for general information purposes only and does not purport to be a complete analysis of all the potential tax considerations. This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended (the "Code"), existing and proposed U.S. Treasury regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date hereof. These authorities may be changed, possibly retroactively, so as to result in U.S. federal income and estate tax consequences different from those set forth below. There can be no assurance that the Internal Revenue Service (the "IRS") will not challenge one or more of the tax consequences described herein, and we have not obtained, and do not intend to obtain, an opinion of counsel or ruling from the IRS with respect to the U.S. federal income tax considerations relating to the purchase, ownership or disposition of our Common Stock.

This summary does not address any alternative minimum tax considerations, any considerations regarding the tax on net investment income, or the tax considerations arising under the laws of any state, local or non-U.S. jurisdiction, or under any non-income tax laws, including U.S. federal gift and estate tax laws, except to the limited extent set forth below. In addition, this summary does not address tax considerations applicable to an investor's particular circumstances or to investors that may be subject to special tax rules, including, without limitation:

- banks, insurance companies or other financial institutions;
- tax-exempt organizations or governmental organizations;
- regulated investment companies and real estate investment trusts;
- controlled foreign corporations, passive foreign investment companies and corporations that accumulate earnings to avoid U.S. federal income tax;
- brokers or dealers in securities or currencies;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- persons that own, or are deemed to own, more than five percent of our capital stock (except to the extent specifically set forth below);
- tax-qualified retirement plans;
- certain former citizens or long-term residents of the United States;
- partnerships or entities or arrangements classified as partnerships for U.S. federal income tax purposes and other pass-through entities (and investors therein);
- persons who hold our securities as a position in a hedging transaction, "straddle," "conversion transaction" or other risk reduction transaction or integrated investment;
- persons who do not hold our securities as a capital asset within the meaning of Section 1221 of the Code; or
- persons deemed to sell our securities under the constructive sale provisions of the Code.

In addition, if a partnership (or entity or arrangement classified as a partnership for U.S. federal income tax purposes) holds our Common Stock, the tax treatment of a partner generally will depend on the status of the partner and upon the activities of the partnership. Accordingly, partnerships that hold our Common Stock, and partners in such partnerships, should consult their tax advisors.

You are urged to consult your own tax advisors with respect to the application of the U.S. federal income tax laws to your particular situation, as well as any tax consequences of the purchase, ownership and disposition of our Common Stock arising under the U.S. federal estate or gift tax laws or under the laws of any state, local, non-U.S., or other taxing jurisdiction or under any applicable tax treaty.

Consequences to U.S. Holders

The following is a summary of the U.S. federal income tax consequences that will apply to a U.S. holder of our Common Stock. For purposes of this discussion, you are a U.S. holder if, for U.S. federal income tax purposes, you are a beneficial owner of our Common Stock, other than a partnership, that is:

- an individual citizen or resident of the United States;
- a corporation or other entity taxable as a corporation created or organized in the United States or under the laws of the United States, any State thereof or the District of Columbia;
- an estate whose income is subject to U.S. federal income tax regardless of its source; or
- a trust (x) whose administration is subject to the primary supervision of a U.S. court and which has one or more "United States persons" (within the meaning of Section 7701(a)(30) of the Code) who have the authority to control all substantial decisions of the trust or (y) which has made a valid election to be treated as a "United States person."

Distributions

As described in the section titled "Dividend Policy," we have never declared or paid cash dividends on our common stock and do not anticipate paying any dividends on our common stock in the foreseeable future. However, if we do make distributions on our common stock, those payments will constitute dividends for U.S. tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, the excess will constitute a return of capital and will first reduce your basis in our common stock, but not below zero, and then will be treated as gain from the sale of stock as described below under "Sale, Exchange or Other Taxable Disposition of Common Stock."

Dividend income may be taxed to an individual U.S. holder at rates applicable to long-term capital gains, provided that a minimum holding period and other limitations and requirements are satisfied. Any dividends that we pay to a U.S. holder that is a corporation may qualify for a deduction allowed to U.S. corporations in respect of dividends received from other U.S. corporations equal to a portion of any dividends received, subject to generally applicable limitations on that deduction. U.S. holders should consult their own tax advisors regarding the holding period and other requirements that must be satisfied to qualify for the reduced tax rate on dividends or the dividends-received deduction.

Sale, Exchange or Other Taxable Disposition of Common Stock

A U.S. holder will generally recognize capital gain or loss on the sale, exchange or other taxable disposition of our Common Stock. The amount of gain or loss will equal the difference between the amount realized on the sale and such U.S. holder's tax basis in such Common Stock. The amount realized will include the amount of any cash and the fair market value of any other property received in exchange for such Common Stock. Gain or loss will be long-term capital gain or loss if the U.S. holder has held the Common Stock for more than one year. Long-term capital gains of non-corporate U.S. holders are generally taxed at preferential rates. The deductibility of capital losses is subject to certain limitations.

Consequences to Non-U.S. Holders

Gain on Sale, Exchange or Other Taxable Disposition of Common Stock

Subject to the discussion below regarding backup withholding and foreign accounts, a non-U.S. holder generally will not be required to pay U.S. federal income tax on any gain realized upon the sale, exchange or other taxable disposition of our Common Stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a U.S. trade or business (and, if required by an applicable income tax treaty, the gain is attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States);

- the non-U.S. holder is a non-resident alien individual who is present in the United States for a period or periods aggregating 183 days or more during the calendar year in which the sale or disposition occurs and certain other conditions are met; or

- shares of our common stock constitute U.S. real property interests by reason of our status as a "United States real property holding corporation" (a USRPHC) for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding the non-U.S. holder's disposition of, or the non- U.S. holder's holding period for, our common stock.

We believe that we are not currently and will not become a USRPHC for U.S. federal income tax purposes, and the remainder of this discussion so assumes. However, because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property relative to the fair market value of our other business assets, there can be no assurance that we will not become a USRPHC in the future. Even if we become a USRPHC, however, as long as our common stock is regularly traded on an established securities market, such common stock will be treated as U.S. real property interests only if the non-U.S. holder actually or constructively holds more than five percent of such regularly traded common stock at any time during the shorter of the five-year period preceding the non-U.S. holder's disposition of, or the non-U.S. holder's holding period for, our common stock.

If the non-U.S. holder is described in the first bullet above, it will be required to pay tax on the net gain derived from the sale, exchange or other taxable disposition under regular graduated U.S. federal income tax rates, and a corporate non-U.S. holder described in the first bullet above also may be subject to the branch profits tax at a rate of 30%, or such lower rate as may be specified by an applicable income tax treaty. An individual non-U.S. holder described in the second bullet above will be required to pay a flat 30% tax (or such lower rate specified by an applicable income tax treaty) on the gain derived from the sale, exchange or other taxable disposition, which gain may be offset by U.S. source capital losses for the year (provided the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses). Non-U.S. holders should consult their own tax advisors regarding any applicable income tax or other treaties that may provide for different rules.

Federal Estate Tax

Common stock beneficially owned by an individual who is not a citizen or resident of the United States (as defined for U.S. federal estate tax purposes) at the time of their death will generally be includable in the decedent's gross estate for U.S. federal estate tax purposes. Such shares, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax treaty provides otherwise.

Backup Withholding and Information Reporting

Generally, we must report annually to the IRS the amount of dividends paid to you, your name and address and the amount of tax withheld, if any. A similar report will be sent to you. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in your country of residence.

Payments of dividends on or of proceeds from the disposition of our securities made to you may be subject to information reporting and backup withholding at a current rate of 28% unless you establish an exemption, for example, by properly certifying your non-U.S. status on an IRS Form W-8BEN or IRS Form W-8BEN-E or other applicable IRS Form W-8. Notwithstanding the foregoing, backup withholding and information reporting may apply if either we or our paying agent has actual knowledge, or reason to know, that you are a U.S. person.

Backup withholding is not an additional tax; rather, the U.S. federal income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund or credit may generally be obtained from the IRS, provided that the required information is furnished to the IRS in a timely manner.

Foreign Account Tax Compliance

The Foreign Account Tax Compliance Act ("FATCA") generally imposes withholding tax at a rate of 30% on dividends on and gross proceeds from the sale or other disposition of our common stock paid to a "foreign financial institution" (as specially defined under these rules), unless such institution enters into an agreement with the U.S. government to, among other things, withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding the U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners) or otherwise establishes an exemption. FATCA also generally imposes a U.S. federal withholding tax of 30% on dividends on and gross proceeds from the sale or other disposition of our securities paid to a "non-financial foreign entity" (as specially defined for purposes of these rules) unless such entity provides the withholding agent with a certification identifying certain substantial direct and indirect U.S. owners of the entity, certifies that there are none or otherwise establishes an exemption. The withholding provisions under FATCA generally apply to dividends paid by us, and under current transitional rules are expected to apply with respect to the gross proceeds from a sale or other disposition of our securities on or after January 1, 2020. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph. Non-U.S. holders should consult their own tax advisors regarding the possible implications of this legislation on their investment in our securities.

Each prospective investor should consult its own tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, owning and disposing of our Common Stock, including the consequences of any proposed changes in applicable laws.

SELLING STOCKHOLDERS

A total of up to shares of Common Stock being registered hereby will be offered and may be sold by the Selling Stockholders pursuant to the Resale Prospectus.

The table below sets forth with respect to each Selling Stockholder:

- the name of such Selling Stockholder;
- the number of shares of Common Stock beneficially owned by such Selling Stockholder as of , 2023 (after giving effect to the IPO Transactions);
- the maximum number of shares of Common Stock that may be offered for the account of such Selling Stockholder under this Resale Prospectus (which such maximum number shall equal the number of shares of Common Stock beneficially owned by such Selling Stockholder as of , 2023, after giving effect to the IPO Transactions (excluding the shares of Common Stock to be received upon conversion of the bridge notes issued in the Bridge Financings, and excluding the shares of Common Stock to be received by the holder of the Investor Note in full satisfaction of our repayment obligations thereunder)); and
- the number and percentage of shares of Common Stock that would be owned by such Selling Stockholder after completion of the offering of the Stockholder Shares, assuming (i) a sale of all of the Common Stock held by such Selling Stockholder and registered hereby, and (ii) the sale of IPO Shares pursuant to the IPO Prospectus (including shares of Common Stock sold in full satisfaction of our obligations under the Investor Note and Director Note).

Each Selling Stockholder and any other person or entity participating in such distribution of Stockholder Shares will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the Stockholder Shares by the Selling Stockholders and any other participating person. To the extent applicable, Regulation M of the Exchange Act may also restrict the ability of any person engaged in the distribution of the Stockholder Shares to engage in market-making activities with respect to such Stockholder Shares. All of the foregoing may affect the marketability of the Stockholder Shares and the ability of any person or entity to engage in market-making activities with respect to such Stockholder Shares.

Each Selling Stockholder (excluding the holder of the 80,000 Holder Shares (Holder Shares, after giving effect to the Reverse Stock Split) subject to the Leak-Out Restriction) is subject to lock-up agreements that, subject to certain exceptions, prohibit them from directly or indirectly offering, pledging, selling, contracting to sell, selling any option or contract to purchase, purchasing any option or contract to purchase, granting any option, right or warrant to purchase or otherwise transferring or disposing of any shares of Common Stock, options to acquire shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, whether now owned or hereafter acquired, or entering into any swap or any other agreement or any transaction that transfer, in whole or in part, directly or indirectly, the economic consequence of ownership, for a period of six months following the effective date of the registration statement of which this prospectus forms a part, without the prior written consent of the underwriters.

No material relationships exist between any of the Selling Stockholders and us, nor have any such material relationships existed within the past three years, except, in either case, as identified below this table.

Beneficial ownership is determined under the rules of the SEC and includes investment power with respect to shares of Common Stock. The number of shares beneficially owned by a Selling Stockholder includes shares of Common Stock underlying warrants, stock options and other derivative securities to acquire our Common Stock held by that person that are currently exercisable or convertible within 60 days after , 2023. The shares of Common Stock issuable under these securities are treated as outstanding for computing the percentage ownership of the person holding these securities but are not treated as outstanding for the purposes of computing the percentage ownership of any other person.

The Common Stock beneficially owned by the Selling Stockholders has been determined in accordance with the rules promulgated by the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. The information in the table below is current as of the date of this prospectus. All information contained in the table below is based upon information provided to the Company by the Selling Stockholders, and the Company has not independently verified this information.

Except as indicated below, the Selling Stockholders are not the beneficial owners of any additional shares of Common Stock or other equity securities issued by the Company or any securities convertible into, or exercisable or exchangeable for, the Company's equity securities.

The Company may require the Selling Stockholders to suspend the sales of Common Stock offered by this Resale Prospectus upon the occurrence of any event that makes any statement in this Resale Prospectus or the related registration statement untrue in any material respect or that requires the changing of statements in these documents in order to make statements in those documents not misleading.

Selling Stockholder Name	Number of Shares of Common Stock Beneficially Owned Prior to the Offering of the Stockholder Shares (1)	Maximum Number of Shares of Common Stock To Be Sold in the Offering of the Stockholder Shares (2)	Number of Shares of Common Stock Beneficially Owned After the Offering of the Stockholder Shares (2)	Percentage Beneficially Owned After the Offering of the Stockholder Shares (3)
3i, LP	(4)	(5)		
Adam Kinzer				
AME Equities LLC				
Aperture Healthcare Ventures Ltd.				
Boswell Prayer Ltd				
DB Investor				
H&M Ventures II				
Hamilcar Portfolio Inc.				
James Kirsch				
MDB Merchants Park LLC				
Motif Pharmaceuticals Ltd				
Nobi Investments Limited				
Sargeant Capital Ventures, LLC				
Zach Hirsch				
TOTAL				

* Less than 1%

(1) Unless otherwise indicated herein, represents shares of Common Stock issued by the Company to such Selling Stockholder.
(2) The Company does not have the ability to control how many, if any, of the Stockholder Shares will be sold by the Selling Stockholders listed above will sell, the table above assumes that the Selling Stockholders will sell all of the Stockholder Shares offered herein for purposes of determining how many shares of Common Stock each such Selling Stockholder will own after the offering of the Stockholder Shares and their applicable beneficial ownership percentage following the offering of the Stockholder Shares.
(3) All percentages rounded to the nearest hundredth.
(4) Includes shares of Common Stock issuable or issued pursuant to the Investor Note and the Investor Note Side Letters.
(5) Includes shares of Common Stock issuable pursuant to the Investor Note Side Letters.

PLAN OF DISTRIBUTION

The shares of Common Stock covered by the final prospectus filed by us which covers the Stockholder Shares (the "Resale Prospectus") may be offered and sold from time to time by the Selling Stockholders, subject to the terms of the lock-up agreements or Leak-Out Restriction, as applicable.

Registration of the Stockholder Shares covered by the Resale Prospectus does not mean that the Stockholder Shares necessarily will be sold; there is no requirement that the Selling Stockholders sell some or all of their respective Stockholder Shares in connection with the offering of the Stockholder Shares, and, in any event, the Selling Stockholders are not obligated to sell such Stockholder Shares below a price that they believe is fair or at a price that does not align with any other legitimate return objectives that they may have.

We will not receive any proceeds from any sale by the Selling Stockholders of the Stockholder Shares. See "Use of Proceeds." We will pay all costs, expenses and fees in connection with the registration of the Stockholder Shares, including fees of our counsel and accountants, fees payable to the SEC and fees of counsel to the Selling Stockholders. The Selling Stockholders will pay all underwriting discounts and commissions and similar selling expenses, if any, attributable to the sale of the Stockholder Shares covered by the Resale Prospectus.

Subject to the terms of the lock-up agreements and Leak-Out Restriction, as applicable, the Selling Stockholders may sell their respective Stockholder Shares covered by the Resale Prospectus from time to time, at market prices prevailing at the time of sale, at prices related to market prices, at a fixed price or prices subject to change or at negotiated prices, or in any manner permitted by the Securities Act, including any one or more of the following ways:

- through one or more underwriters or broker-dealers on a firm commitment or best-efforts basis;
- in privately negotiated transactions;
- through broker-dealers, who may act as agents or principals;
- in a block trade in which a broker-dealer will attempt to sell a block of shares of Common Stock as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- directly to one or more purchasers;
- through selling agents; or
- in any combination of the above.

In effecting sales, brokers or dealers engaged by a Selling Stockholder may arrange for other brokers or dealers to participate. Broker-dealer transactions may include:

- purchases of the shares of Common Stock by a broker-dealer as principal and resales of the shares of Common Stock by the broker-dealer for its account pursuant to the Resale Prospectus;
- ordinary brokerage transactions; or
- transactions in which the broker-dealer solicits purchasers.

Until such time as it is no longer necessary to maintain the registration of the Stockholder Shares due to such shares being permitted to be offered and resold without restriction pursuant to the provisions of Rule 144, at any time a particular offer of the Stockholder Shares covered by the Resale Prospectus is made, a prospectus supplement to such prospectus, if required, will be distributed which will set forth the aggregate amount of shares of Common Stock covered by the Resale Prospectus being offered and the terms of such offering, including the name or names of any underwriters, dealers, brokers or agents, any option under which underwriters may purchase additional shares of Common Stock from the Selling Stockholder(s), any discounts, commissions, concessions and other items constituting compensation from the Selling Stockholder(s) and any discounts, commissions or concessions allowed or reallowed or paid to dealers. Such prospectus supplement, and, if necessary, a post-effective amendment to the registration statement of which the Resale Prospectus is a part, will be filed with the SEC to reflect the disclosure of additional information with respect to the distribution of the Stockholder Shares covered by such prospectus, if applicable.

In connection with the sale of the Stockholder Shares covered by the Resale Prospectus through broker-dealers, such broker-dealers may receive compensation in the form of discounts or commissions and may also receive commissions from purchasers of shares of Common Stock for whom they may act as agent. These broker-dealers may sell to or through other dealers, and such dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they may act as agent.

Any underwriters, broker-dealers or agents participating in the distribution of the Stockholder Shares covered by the Resale Prospectus may be deemed to be "underwriters" within the meaning of the Securities Act, and any commissions received by any of those underwriters, broker-dealers or agents may be deemed to be underwriting commissions under the Securities Act. The Selling Stockholders may also be deemed to be an underwriter, and any discounts and commissions they receive and any profit they realize on the sale of the Stockholder Shares may be deemed to be underwriting commissions under the Securities Act.

The Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions. In connection with such transactions, broker-dealers or other financial institutions may engage in short sales of shares of Common Stock in the course of hedging transactions, broker-dealers or other financial institutions may engage in short sales of shares of Common Stock in the course of hedging the positions they assume with a Selling Stockholder. The Selling Stockholders may also sell the Stockholder Shares short and redeliver the securities to close out such short positions. Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions which require the delivery to such broker-dealer or other financial institution of the Stockholder Shares offered by the Resale Prospectus, which shares such broker-dealer or other financial institution may resell pursuant to such prospectus, as supplemented or amended to reflect such transaction to the extent required. The Selling Stockholders may also pledge the Stockholder Shares offered hereby to a broker-dealer or other financial institution, and, upon a default, such broker-dealer or other financial institution, may effect sales of the pledged Stockholder Shares pursuant to the Resale Prospectus, as supplemented or amended to reflect such transaction to the extent required.

The Selling Stockholders may enter into derivative transactions with third parties or sell their respective Stockholder Shares to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell the Stockholder Shares covered by the Resale Prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use Stockholder Shares pledged by a Selling Stockholder or borrowed from a Selling Stockholder or others to settle those sales or to close out any related open borrowings of stock and may use such Stockholder Shares received from such Selling Stockholder in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in the Resale Prospectus, will be identified in the applicable prospectus supplement (or a post-effective amendment).

We may authorize underwriters, dealers and agents to solicit from third parties offers to purchase Stockholder Shares under contracts providing for payment and delivery on future dates. The applicable prospectus supplement will describe the material terms of these contracts, including any conditions to the purchasers' obligations, and will include any required information about commissions we may pay for soliciting these contracts.

Agents, underwriters and dealers may be entitled under agreements which may be entered into with us or the Selling Stockholders to indemnify us or such Selling Stockholders against specified liabilities, including liabilities incurred under the Securities Act, or to contribution by us or Selling Stockholders to payments it may be required to make in respect of such liabilities. The applicable prospectus supplement will describe the terms and conditions of such indemnification or contribution. Some of the agents, underwriters or dealers, or their affiliates may be customers of, engage in transactions with or perform services for us or our subsidiaries in the ordinary course of business.

In connection with the offering of the Stockholder Shares, underwriters may purchase and sell shares of Common Stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by underwriters of a greater number of shares than they are required to purchase in connection with the offering of the Stockholder Shares. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares of Common Stock from the Selling Stockholders in the offering of the Stockholder Shares. Such underwriters may close out any covered short position by either exercising their option to purchase additional shares of Common Stock or purchasing shares of Common Stock in the open market. In determining the source of shares of Common Stock to close out the covered short position, such underwriters will consider, among other things, the price of shares of Common Stock available for purchase in the open market as compared to the price at which they may purchase shares of Common Stock through an over-allotment option, if any. "Naked" short sales are any sales in excess of such option. Such underwriters must close out any naked short position by purchasing shares of Common Stock in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the Common Stock in the open market after pricing that could adversely affect investors who purchase shares of Common Stock in the offering of the Stockholder Shares. Stabilizing transactions consist of various bids for or purchases of Common Stock made by such underwriters in the open market prior to the completion of the offering of the Stockholder Shares.

Such underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to other underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares of Common Stock sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions may have the effect of preventing or retarding a decline in the market price of the Common Stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of the Common Stock. As a result, the price of the Common Stock may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued at any time.

Certain underwriters, agents or dealers or their affiliates may have provided from time to time, and may provide in the future, investment, commercial banking, derivatives and financial advisory services to the Company, the Selling Stockholders and their respective affiliates in the ordinary course of business, for which they have received or may receive customary fees and commissions.

In addition, a Selling Stockholder that is an entity may elect to make a pro rata in-kind distribution of securities to its members, partners or stockholders pursuant to the registration statement of which the Resale Prospectus forms a part by delivering a prospectus. Such members, partners or stockholders would thereby receive freely tradeable shares of Common Stock pursuant to the distribution through such registration statement. To the extent a distributee is an affiliate of ours (or to the extent otherwise required by law), we may file a prospectus supplement in order to permit the distributees to use such prospectus to resell such shares of Common Stock acquired in such distribution.

The Stockholder Shares covered by the Resale Prospectus may also be sold in private transactions or under Rule 144 under the Securities Act rather than pursuant to such prospectus.

UNDERWRITING

We and the underwriters named below have entered into an underwriting agreement with respect to the IPO Shares being offered pursuant to the IPO Prospectus. Subject to certain conditions, each underwriter has severally agreed to purchase the number of IPO Shares indicated in the following table. Maxim Group LLC ("Maxim") is acting as the representative of the underwriters.

Underwriters	Number of shares of Common Stock
Maxim Group LLC	
Total	

The underwriters are committed to take and pay for all of the securities being offered, other than the securities covered by the over-allotment option described below unless and until this option is exercised. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

We have granted the underwriters an option to purchase from us up to an additional shares of our Common Stock within 45 days from the date of the IPO Prospectus solely to cover over-allotments, if any.

The following table shows the per IPO Share and total underwriting discounts and commissions to be paid to the underwriters by us assuming both no exercise and full exercise of the underwriters' over-allotment option:

	Without Over-Allotment Exercise	With Over-Allotment Exercise
Per IPO Share[(1)]	$	$
Total	$	

(1) Represents an underwriting discount equal to (i) 8% per IPO Share, which is the underwriting discount we have agreed to pay for sales to investors in the IPO introduced by the underwriters and (ii) 6% per IPO Share, which is the underwriting discount we have agreed to pay for sales to investors in this offering introduced by us. The fees do not include the Representative's Warrants or expense reimbursement provisions described below. In addition, the underwriters will not receive additional fees for the sale of IPO Shares in full satisfaction of the Investor Note and Director Note.

IPO Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of the IPO Prospectus. Any IPO Shares sold by the underwriters to securities dealers may be sold at a discount of up to $ per share from the initial public offering price. After the initial offering of IPO Shares, the representative may change the offering price and the other selling terms. The offering of IPO Shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part. Sales of IPO Shares made outside of the United States may be made by affiliates of the underwriters.

Expense Reimbursement

We have agreed to pay or reimburse the underwriters for certain of their actual out-of-pocket fees and expenses, including "road show," diligence, filing fees and communication expenses associated with the review of this offering of IPO Shares by the Financial Industry Regulatory Authority, Inc., and legal fees up to a maximum of $100,000. As of the date of this prospectus, we have paid Maxim an advance of $10,000 which shall be applied against its actual out-of-pocket accountable expenses. Such advance payments will be returned to us to the extent any portion of the advance is not actually incurred, in accordance with FINRA Rule 5110(g)(4)(A).

Representative's Warrants

Pursuant to the underwriting agreement, we will issue the Representative's Warrants to the underwriters to purchase a number of shares of Common Stock equal to 5% of the total number of shares of Common Stock sold in the IPO at an exercise price equal to 100% of the per IPO Share. The Representative's Warrants may be purchased in cash or via cashless exercise, will be exercisable commencing six months following, and terminating on the five-year anniversary of, the commencement of sales of IPO Shares registered on the registration statement of which the IPO Prospectus is a part. The Representative's Warrants and the shares of Common Stock issuable upon exercise of the Representative's Warrants will be deemed compensation by FINRA, and therefore will be subject to FINRA Rule 5110(e) (1)(A). In accordance with FINRA Rule 5110(e)(1) (A), neither the Representative's Warrants nor any of the shares of Common Stock issued upon exercise of such warrants may be sold, transferred, assigned, pledged or hypothecated, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of such securities by any person, for a period of 180 days immediately following the commencement of sales of the IPO Shares registered on the registration statement of which this IPO Prospectus is a part, subject to certain exceptions.

Right of First Refusal

We have agreed to grant Maxim, for the eighteen (18) month period from the closing of the IPO, a right of first refusal to act as to act as sole managing underwriter and sole book runner, sole placement agent, or sole sales agent, for any and all future public or private equity, equity-linked or debt (excluding commercial bank debt) offerings for which the Company retains the service of an underwriter, agent, advisor, finder or other person or entity in connection with such offering during such eighteen (18) month period of the Company, or any successor to or any subsidiary of the Company. The Company shall not offer to retain any entity or person in connection with any such offering on terms more favorable than terms on which it offers to retain Maxim.

Lock-up Agreements

We have agreed with the underwriters that we will not, without the prior consent of the representative, directly or indirectly sell, offer, contract or grant any option to sell, pledge, transfer, or otherwise dispose of or enter into any transaction which may result in the disposition of any common stock or securities convertible into, exchangeable or exercisable for any common stock for a period of six months after the closing of this offering, subject to certain exceptions. In addition, we have agreed not to enter into any Variable Rate Transaction for a period of one year following the closing of the IPO as described below.

All of our directors, executive officers and, other than as indicated below, all holders of our capital stock prior to the IPO, have entered into lock-up agreements with the underwriters pursuant to which they have agreed, subject to specific exceptions, not to directly or indirectly sell, offer, contract or grant any option to sell, pledge, transfer (excluding intra-family transfers, transfers to a trust for estate planning purposes or to beneficiaries of officers, directors and stockholders upon their death), or otherwise dispose of or enter into any transaction which may result in the disposition of any common stock or securities convertible into, exchangeable or exercisable for any common stock, without the prior written consent of the representative, for a period of six months after the closing date of the IPO. Notwithstanding the foregoing, the Holder of the 80,000 Holder Shares (Holder Shares, after giving effect to the Reverse Stock Split) issued pursuant to the Investor Note Side Letters will not be subject to such lock-up restrictions (but will be subject to the Leak-Out Restriction with the Company).

Stabilization

In connection with the IPO, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of our Common Stock. Specifically, the underwriters may over-allot in connection with this offering by selling more shares of Common Stock than they are obligated to purchase under the underwriting agreement, creating a short position in our securities. The short position may be either a covered short position or a naked short position. In a covered short position, the number of securities over-allotted by the underwriters is not greater than the number of securities that they may purchase in the over-allotment option. In a naked short position, the number of securities involved is greater than the number of securities in the over-allotment option. To close out a short position or to stabilize the price per security the underwriters may bid for, and purchase, securities in the open market. The underwriters may also elect to reduce any short position by exercising all or part of the over-allotment option. In determining the source of securities to close out the short position, the underwriters will consider, among other things, the price of the security available for purchase in the open market as compared to the price at which it may purchase the security through the over-allotment option. If the underwriters sell more than could be covered by the over-allotment option, a naked short position, the position can only be closed out by buying securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase IPO Shares in the IPO.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representative has repurchased securities sold by or for the account of such underwriter in stabilizing or short covering transactions.

Finally, the underwriters may bid for, and purchase, securities in market making transactions, including "passive" market making transactions as described below.

The foregoing transactions may stabilize or maintain the market price of our securities at a price that is higher than the price that might otherwise exist in the absence of these activities. The underwriters are not required to engage in these activities and may discontinue any of these activities at any time without notice. These transactions may be effected on a national securities exchange or otherwise.

In connection with the IPO, the underwriters and selling group members, if any, or their affiliates may engage in passive market making transactions in common stock on a national securities exchange immediately prior to the commencement of sales in this offering of shares of Common Stock, in accordance with Rule 103 of Regulation M under the Exchange Act. Rule 103 generally provides that:

- a passive market maker may not effect transactions or display bids for our common stock in excess of the highest independent bid price by persons who are not passive market makers; net purchases by a passive market maker on each day are generally limited to 30% of the passive market maker's average daily trading volume in our common share during a specified two-month prior period or 200 shares, whichever is greater, and must be discontinued when that limit is reached; and

- passive market making bids must be identified as such.

Passive market making may stabilize or maintain the market price of our Common Stock at a level above that which might otherwise prevail and, if commenced, may be discontinued at any time.

Prohibition on Variable Rate Transactions

We have agreed with the underwriters that, from the effective date of the registration statement of which this prospectus forms a part through and including the one-year anniversary of the closing of the IPO, we will not enter into, announce the entering into, or propose entering into, a Variable Rate Transaction. A "Variable Rate Transaction" means an Equity Line of Credit or similar agreement, or a Variable Priced Equity Linked Instrument. An "Equity Line of Credit" means any transaction involving a written agreement between the Company and an investor or underwriter whereby the Company has the right to "put" its securities to the investor or underwriter over an agreed period of time and at a future determined price or price formula (other than customary "preemptive" or "participation" rights or "weighted average" or "full-ratchet" anti-dilution provisions or in connection with fixed-price rights offerings and similar transactions that are not Variable Priced Equity Linked Instruments), and "Variable Priced Equity Linked Instruments" means: (A) any debt or equity securities which are convertible into, exercisable or exchangeable for, or carry the right to receive additional shares of Common Stock either (1) at any conversion, exercise or exchange rate or other price that is based upon and/or varies with the trading prices of or quotations for shares of Common Stock at any time after the initial issuance of such debt or equity security, or (2) with a conversion, exercise or exchange price that is subject to being reset on more than one occasion at some future date at any time after the initial issuance of such debt or equity security due to a change in the market price of the shares of Common Stock since date of initial issuance (other than customary "preemptive" or "participation" rights or "weighted average" or "full-ratchet" anti-dilution provisions or in connection with fixed-price rights offerings and similar transactions), and (B) any amortizing convertible security which amortizes prior to its maturity date, where the Company is required or has the option to (or any investor in such transaction has the option to require the Company to) make such amortization payments in shares of Common Stock which are valued at a price that is based upon and/or varies with the trading prices of or quotations for shares of Common Stock at any time after the initial issuance of such debt or equity security (whether or not such payments in stock are subject to certain equity conditions).

For the avoidance of doubt, the foregoing prohibition does not prevent us from conducting "at-the-market" offerings or similar equity distribution programs, and does not prevent us from fulfilling our obligations in respect of currently outstanding or issued securities of the Company or securities to be issued in connection with the closing of the IPO.

Indemnification

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act and liabilities arising from breaches of representations and warranties contained in the underwriting agreement, or to contribute to payments that the underwriters may be required to make in respect of those liabilities.

Determination of Public Offering Price

Prior to the IPO, there has not been a public market for our shares of Common Stock. The public offering price of the IPO Shares offered by the IPO Prospectus has been determined by negotiation between us and the underwriters. Among the factors considered in determining the public offering price of the IPO Shares were:

- our history and our prospects;

- our financial information and historical performance;

- the industry in which we operate;

- the status and development prospects for our products and services;

- the experience and skills of our executive officers; and
- the general condition of the securities markets at the time of the IPO.

The offering price stated on the cover page of this prospectus should not be considered an indication of the actual value of the securities. That price is subject to change as a result of market conditions and other factors, and we cannot assure you that the securities can be resold at or above the public offering price.

Listing

We intend to apply to list our shares of Common Stock on the NYSE American under the symbol "CHRO."

Electronic Distribution

A prospectus in electronic format may be made available on websites or through other online services maintained by the underwriters of this offering, or by its affiliates. Other than the prospectus in electronic format, the information on the underwriters' website and any information contained in any other website maintained by an underwriter is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the underwriters in their capacity as underwriters, and should not be relied upon by investors.

Other Relationships

The underwriters have informed us that they do not expect to confirm sales of our IPO Shares offered by this prospectus to any accounts over which they exercise discretionary authority.

Some of the underwriters and their affiliates may in the future engage in investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They may in the future receive customary fees and commissions for these transactions. In addition, in the ordinary course of their business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to the issuer and to persons and entities with relationships with the issuer, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities or instruments of the issuer (directly, as collateral securing other obligations or otherwise) or persons and entities with relationships with the issuer. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

Advisory Arrangement

The Company has separately retained A.G.P./Alliance Global Partners ("A.G.P.") as a financial advisor in connection with the offering of the IPO Shares. Further to such financial advisory agreement, A.G.P. will not be rendering services to the Company as an underwriter, syndicate member or placement agent in connection with the IPO. Such financial advisory services are separate from those services to be performed by the underwriters in connection with the IPO. The Company has agreed to issue to A.G.P. warrants to purchase the number of shares of Common Stock equal to two percent (2%) of the aggregate number of IPO Shares sold pursuant to the IPO Prospectus, with terms and conditions identical to the Representative's Warrants.

Selling Restrictions

This prospectus does not constitute an offer to sell to, or a solicitation of an offer to buy from, anyone in any country or jurisdiction (i) in which such an offer or solicitation is not authorized, (ii) in which any person making such offer or solicitation is not qualified to do so or (iii) in which any such offer or solicitation would otherwise be unlawful. No action has been taken that would, or is intended to, permit a public offer of IPO Shares or possession or distribution of this prospectus or any other offering or publicity material relating to the IPO Shares in any country or jurisdiction (other than the U.S.) where any such action for that purpose is required. Accordingly, each underwriter has undertaken that it will not, directly or indirectly, offer or sell any IPO Shares or have in its possession, distribute or publish any prospectus, form of application, advertisement or other document or information in any country or jurisdiction except under circumstances that will, to the best of its knowledge and belief, result in compliance with any applicable laws and regulations and all offers and sales of IPO Shares by it will be made on the same terms.

Switzerland

This prospectus is not intended to constitute an offer or solicitation to purchase or invest in the securities described herein. The securities may not be publicly offered, directly or indirectly, in Switzerland within the meaning of the Swiss Financial Services Act, or FinSA, and will not be listed on the SIX Swiss Exchange or on any other exchange or regulated trading facility in Switzerland. Neither this prospectus nor any other offering or marketing material relating to the securities constitutes a prospectus as such term is understood pursuant to the FinSA, and neither this prospectus nor any other offering or marketing material relating to the securities may be publicly distributed or otherwise made publicly available in Switzerland.

European Economic Area

In relation to each Member State of the European Economic Area (each a "Relevant State"), no securities have been offered or will be offered pursuant to this offering to the public in that Relevant State prior to the publication of a prospectus in relation to the securities which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that the securities may be offered to the public in that Relevant State at any time:

(a) to any legal entity which is a qualified investor as defined under Article 2 of the Prospectus Regulation;

(b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the Prospectus Regulation), subject to obtaining the prior consent of the representative for any such offer; or

(c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of the securities shall require the company or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to the securities in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any securities, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

United Kingdom

No securities have been offered or will be offered pursuant to this offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the securities which has been approved by the Financial Conduct Authority, except that the shares may be offered to the public in the United Kingdom at any time:

(a) to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;

(b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the representative for any such offer; or

(c) in any other circumstances falling within Section 86 of the UK's Financial Services and Markets Act 2000, as amended, or FSMA.

provided that no such offer of the shares shall require the company or any underwriter to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to the securities in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase or subscribe for any securities and the expression "UK Prospectus Regulation" means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

The communication of this prospectus and any other document or materials relating to the issue of the securities offered hereby is not being made, and such documents and/or materials have not been approved, by an authorized person for the purposes of section 21 of the FSMA. Accordingly, such documents and/or materials are not being distributed to, and must not be passed on to, the general public in the UK. The communication of such documents and/or materials as a financial promotion is only being made to and directed at persons outside the UK and those persons in the UK who have professional experience in matters relating to investments and who fall within the definition of investment professionals (as defined in Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "Financial Promotion Order")), or who fall within Article 49(2)(a) to (d) of the Financial Promotion Order, or who are any other persons to whom it may otherwise lawfully be made under the Financial Promotion Order (all such persons together being referred to as "relevant persons"). In the UK, the securities offered hereby are only available to, and any investment or investment activity to which this prospectus relates will be engaged only with, relevant persons. Any person in the UK that is not a relevant person should not act or rely on this prospectus or any of its contents. Each underwriter has represented, warranted and agreed that it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of the securities in circumstances in which Section 21(1) of the FSMA does not apply to the company; and it has complied with and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the securities in, from or otherwise involving the UK.

LEGAL MATTERS

The validity of the shares of Common Stock offered hereby and issuable upon the exercise of the Advisor Warrants and Representative's Warrants, will be passed upon for us by Sullivan & Worcester LLP, New York, New York. The underwriters are being represented by Pryor Cashman LLP, New York, New York, in connection with the offering of the IPO Shares.

Interests of named experts and counsel

David Danovitch and John Riley, partner and of counsel of Sullivan & Worcester LLP, respectively, each owns 139,195 shares of our Common Stock (prior to giving effect to the Reverse Stock Split), and each holds senior secured convertible notes in the principal amount of $27,516.53 and $15,383.95, respectively, that will each automatically convert into shares of Common Stock at the initial public offering.

EXPERTS

The financial statements of Chromocell Therapeutics Corporation as of December 31, 2022 and 2021 and for each of the two years in the period ended December 31, 2022, appearing in this prospectus have been audited by Marcum LLP, 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 Chromocell Therapeutics Corporation to continue as a going concern as described in Note 2 to the financial statements and an emphasis of matter paragraph related to the preparation of certain financial statements on a carve-out basis as described in Note 4), appearing elsewhere in this prospectus, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the securities offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement, some of which is contained in exhibits to the registration statement as permitted by the rules and regulations of the SEC. For further information with respect to us and these securities, we refer you to the registration statement, including the exhibits filed as a part of the registration statement. Statements contained in this prospectus concerning the contents of any contract or any other document are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement, please see the copy of the contract or document that has been filed. Each statement in this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit. The SEC maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is www.sec.gov.

As a result of the IPO, we will become subject to the information and reporting requirements of the Exchange Act and, in accordance with this law, will file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information will be available for inspection and copying at the SEC's public reference facilities and the website of the SEC referred to above. We also maintain a website at www.chromocell.com. Upon completion of the IPO, you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on our website is not a part of this prospectus and the inclusion of our website address in this prospectus is an inactive textual reference only.

Chromocell Therapeutics Corporation
Index to Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of
Chromocell Therapeutics Corporation
Freehold, New Jersey

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Chromocell Therapeutics Corporation (the "Company") as of December 31, 2022 and 2021, the related statements of operations, changes in stockholders' / parent's net deficit and cash flows for each of the two years in the period ended December 31, 2022, 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 December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2022, 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, the Company 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) ("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.

Emphasis of Matter

As discussed in Note 4 the financial statements for the period from January 1, 2022 to August 10, 2022, as of December 31, 2021, and for the year ended December 31, 2021 have been prepared on a "carve-out" basis from the financial statements of Chromocell Holdings to reflect the assets, liabilities, revenues and expenses of Chromocell Therapeutics Corporation as well as allocations deemed reasonable by management to present the results of operations, financial position and cash flows of Chromocell Therapeutics Corporation on a standalone basis and may not reflect Chromocell Therapeutics Corporation results of operations, financial position and cash flows had the Company operated as a standalone company during the periods presented. Our Opinion is not modified with respect to this matter.

/s/ Marcum llp

Marcum llp

We have served as the Company's auditor since 2021.

Houston, Texas
May 1, 2023

CHROMOCELL THERAPEUTICS CORPORATION
BALANCE SHEETS

	December 31, 2022	December 31, 2021
ASSETS		
CURRENT ASSETS		
Cash	$ 55,074	$ -
TOTAL CURRENT ASSETS	55,074	-
TOTAL ASSETS	$ 55,074	$ -
LIABILITIES AND STOCKHOLDERS' / PARENT'S NET DEFICIT		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	$ 2,993,920	$ 2,580,317
Accrued compensation	221,875	-
Bridge loan, net of debt discount	435,630	-
Loan payable - related party, net of debt discount	104,800	-
Due to parent	5,386	-
TOTAL CURRENT LIABILITIES	3,761,611	2,580,317
Advance from Chromocell Corporation	-	1,099,950
TOTAL LIABILITIES	3,761,611	3,680,267
COMMITMENTS AND CONTINGENCIES		
STOCKHOLDERS' / PARENT'S NET DEFICIT		
Preferred stock, $0.001 par value, 700,000 shares authorized, 600,000 and 0 shares issued and outstanding as of December 31, 2022 and 2021, respectively	600	-
Common stock, $0.001 par value, 100,000,000 shares authorized, 10,000,000 and 0 shares issued and outstanding as of December 31, 2022 and 2021, respectively	10,000	-
Additional paid in capital	2,421,719	-
Accumulated / parent's net deficit	(6,138,856)	(3,680,267)
TOTAL STOCKHOLDERS' / PARENT'S NET DEFICIT	(3,706,537)	(3,680,267)
TOTAL LIABILITIES AND STOCKHOLDERS' / PARENT'S NET DEFICIT	$ 55,074	$ -

The accompanying notes are an integral part to these financial statements.

CHROMOCELL THERAPEUTICS CORPORATION
STATEMENTS OF OPERATIONS

	For the Year Ended December 31, 2022	For the Year Ended December 31, 2021
OPERATING EXPENSES		
General and administrative expenses	$ 1,098,848	$ 496,667
Research and development	391,730	209,047
Professional fees	827,581	133,282
Total operating expenses	2,318,159	838,996
NET LOSS FROM OPERATIONS	(2,318,159)	(838,996)
OTHER (EXPENSE) INCOME		
Interest expense	(140,430)	(253)
Gain on forgiveness of PPP loan	-	243,862
Total other (expense) income	(140,430)	243,609
Net loss before provision for income taxes	(2,458,589)	(595,387)
Provision for income taxes	-	-
NET LOSS	$ (2,458,589)	$ (595,387)
Net loss per common share - basic and diluted	$ (0.63)	$ -
Weighted average number of common shares outstanding during the year - basic and diluted	3,917,808	-

The accompanying notes are an integral part to these financial statements.

CHROMOCELL THERAPEUTICS CORPORATION
STATEMENT OF CHANGES IN STOCKHOLDERS' DEFICIT
FOR THE YEAR ENDED DECEMBER 31, 2022

	Common Shares	Par	Preferred Shares	Preferred Shares Par	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balance, December 31, 2021	-	$ -	-	$ -	$ -	$ (3,680,267)	$ (3,680,267)
Fair value of shares issued in contribution agreement	10,000,000	10,000	600,000	600	1,889,400	-	1,900,000
Net contributions from Chromocell Corporation	-	-	-	-	422,173	-	422,173
Stock-based compensation	-	-	-	-	110,146	-	110,146
Net loss	-	-	-	-	-	(2,458,589)	(2,458,589)
Balance, December 31, 2022	10,000,000	$ 10,000	600,000	$ 600	$ 2,421,719	$ (6,138,856)	$ (3,706,537)

The accompanying notes are an integral part to these financial statements.

CHROMOCELL THERAPEUTICS CORPORATION
STATEMENT OF CHANGES IN PARENT'S NET DEFICIT

	For the Year Ended December 31, 2021
Parent's net deficit, beginning of year	$ (3,577,941)
Net loss	(595,387)
Net contribution from Chromocell Corporation	493,061
Parent's net deficit, end of period	$ (3,680,267)

The accompanying notes are an integral part to these financial statements.

CHROMOCELL THERAPEUTICS CORPORATION
STATEMENTS OF CASH FLOWS

	For the Year Ended December 31, 2022	For the Year Ended December 31, 2021
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (2,458,589)	$ (595,387)
Adjustments to reconcile net loss to net cash used in operating activities		
Forgiveness of PPP loan	-	(241,793)
Amortization of debt discount	140,430	-
Stock-based compensation	110,146	-
Changes in operating assets and liabilities:		
Security deposit	-	71,872
Accounts payable and accrued expenses	413,603	(827,703)
Accrued compensation	221,875	-
Due to parent	5,386	-
Net Cash Used In Operating Activities	(1,567,149)	(1,593,011)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from loan payable - related party, net of debt discount	100,000	-
Proceeds from bridge loan, net of debt discount	300,000	-
Net contribution from Chromocell Corporation	422,173	493,061
Advance from Chromocell Corporation	800,050	1,099,950
Net Cash Provided By Financing Activities	1,622,223	1,593,011
NET INCREASE (DECREASE) IN CASH	55,074	-
CASH AT BEGINNING OF PERIOD	-	-
CASH AT END OF PERIOD	$ 55,074	$ -
Supplemental cash flow information:		
Cash paid for income taxes	$ -	$ -
Cash paid for interest expense	$ -	$ -
NONCASH INVESTING AND FINANCING ACTIVITIES:		
Fair value of shares issued in contribution agreement	$ 1,900,000	$ -

The accompanying notes are an integral part to these carveout financial statements.

NOTE 1 – ORGANIZATION AND NATURE OF BUSINESS

Company Background

Chromocell Therapeutics Corporation ("Chromocell" or the "Company") was incorporated in the State of Delaware on March 19, 2021. On August 10, 2022, the Company entered into that certain Contribution Agreement (the "Contribution Agreement") with Chromocell Corporation, a Delaware corporation ("Chromocell Holdings"), pursuant to which, effective July 12, 2022 (the "Contribution Date"), Chromocell Holdings contributed all assets and liabilities related to Chromocell Holdings' historical therapeutic business, including all patents, pre-clinical and Phase I study results and data, and trade secrets related to the CC8464 compound to the Company. (See Note 5)

The Company is a development stage life sciences company which improves consumer products and patient lives through breakthrough science and technologies. The Company is focused on the discovery and development of therapeutics through the use of pioneering Chromovert® technology. Chromovert technology enables the Company to use rare cells ideally suited for effective high-throughput screening. The Company's therapeutics pipeline is currently focused on analgesics and rare diseases, where Chromovert technology has proven highly effective in the rapid identification of potential new drug candidates.

The Company has a limited operating history and has not generated revenue from intended operations. The Company's business and operations are sensitive to general business and economic conditions in the U.S. and worldwide along with local, state, and federal governmental policy decisions. A host of factors beyond the Company's control could cause fluctuations in these conditions. Adverse conditions may include changes in the biotechnology regulatory environment, technological advances that render our technologies obsolete, availability of resources for clinical trials, acceptance of technologies into the medical community, and competition from larger, more well-funded companies.

On January 30, 2020, the World Health Organization declared the COVID-19 novel coronavirus outbreak a "Public Health Emergency of International Concern" and on March 10, 2020, declared it to be a pandemic. Actions taken around the world to help mitigate the spread of the coronavirus include restrictions on travel, and quarantines in certain areas, and forced closures for certain types of public places and businesses. The COVID-19 coronavirus and actions taken to mitigate it have had and are expected to continue to have an adverse impact on the economies and financial markets of many countries, including the geographical area in which the Company operates. While it is unknown how long these conditions will last and what the financial impact will be to the Company, it is reasonably possible that future capital raising efforts and additional development of our technologies may be negatively affected.

NOTE 2 – GOING CONCERN ANALYSIS

Management Plans

During the year ended December 31, 2022, the Company had a net loss of $2,458,589 and cash of $55,074 at December 31, 2022. These factors indicate substantial doubt about the Company's ability to continue as a going concern for the twelve months following the issuance of these financial statements. The accompanying financial statements have been prepared assuming that the Company will continue as a going concern.

The financial statements included in this report do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the matters discussed herein. While the Company believes in the viability of our strategy to generate sufficient revenue, control costs, and raise additional funds, when necessary, there can be no assurances to that effect. The Company's ability to continue as a going concern is dependent upon the ability to implement the business plan, generate sufficient revenues and to control operating expenses.

Liquidity and Capital Resources

At December 31, 2022, the Company had $55,074 in cash and cash equivalents and a working capital deficit of approximately $3.7 million, compared to approximately $0 in cash and cash equivalents and a working capital deficit of approximately $2.6 million at December 31, 2021.

Based on the Company's current projections, management believes that due to the lack of cash, revenue and accounts receivables there is substantial doubt about its to ability to continue to operate as a going concern and fund its operations through at least the next twelve months following the issuance of these financial statements, unless the Company can raise additional funds through an initial public offering. While the Company will continue to invest in its business and the development of CC8464, and potentially other molecules, and it is unlikely that the Company will generate product or licensing revenue during the next twelve months, so the Company will need to raise funds though the initial public offering or via private investors or both; However, there is no assurance that the Company will be able to raise such additional funds on acceptable terms, if at all. If the Company raises additional funds by issuing securities, existing stockholders may be diluted.

If adequate funds are not available, the Company may be required to curtail its operations or other business activities or obtain funds through arrangements with strategic partners or others that may require the Company to relinquish rights to certain technologies or potential markets.

NOTE 3 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

Prior to the execution of the Contribution Agreement between Chromocell and Chromocell Holdings (see Note 5), Chromocell did not constitute a separate legal entity or group and as such, stand-alone financial statements were not previously prepared for the Company. As a result, carve-out financial statements for Chromocell were prepared for the year ended December 31, 2021, which include all of Chromocell's operations which have been conducted within Chromocell Holdings, which also has other activities. These financial statements have been prepared on a stand-alone basis derived from the financial statements and related accounting records of Chromocell Holdings. The accompanying carve-out financial statements present the historical financial position, results of operations, changes in net assets and cash flows of the Company as it was historically conducted, as more fully described below in Note 4. The financial information in these financial statements does not necessarily include all the expenses that would have been incurred had the Company operated as a separate stand-alone entity and may not reflect results of operations, financial position and cash flows had the Company been a stand-alone company during the year ended December 31, 2021.

With the execution of the Contribution Agreement on August 12, 2022, effective for the reporting period ended December 31, 2022 and all future reporting periods, the financial statements reflect Chromocell as a stand-alone entity. The financial statements for December 31, 2021 represent the carve-out of the financial actively related to Chromocell Therapeutics out of Chromocell Holdings and does not necessarily represent the actual activity of Chromocell Therapeutics if it had been a separate entity during that period.

For all periods, the Company's financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and the rules and regulations of the Securities and Exchange Commission ("SEC").

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates made by management include, but are not limited to, estimating the useful lives of patent assets, realization of long-lived assets, valuation of deferred income taxes, unrealized tax positions and business combination accounting.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents. As of December 31, 2022 and 2021, the Company did not have any cash equivalents. As of December 31, 2022 and 2021, the Company did not have any deposits in excess of Federally insured limits.

Research and Development

We incur research and development costs during the process of researching and developing our technologies and future offerings. We expense these costs as incurred unless such costs qualify for capitalization under applicable guidance.

Below is a disaggregation of R&D expenses:

Account	For the Year Ended December 31, 2022	For the Year Ended December 31, 2021
Consultant	$ 86,802	$ 120,480
Lab gas	13,871	$ 8,628
Lab cell storage	62,197	$ 65,260
Chemistry Manufacturing and Controls (“CMC”)	3,800	$ -
IP services	225,060	$ 14,679
Total	**$ 391,730**	**$ 209,047**

Fair Value Measurements and Fair Value of Financial Instruments

The Company adopted FASB ASC Topic 820, Fair Value Measurements ("ASC Topic 820"). ASC Topic 820 clarifies the definition of fair value, prescribes methods for measuring fair value, and establishes a fair value hierarchy to classify the inputs used in measuring fair value as follows:

- Level 1 Inputs are unadjusted quoted prices in active markets for identical assets or liabilities available at the measurement date.
- Level 2 Inputs are unadjusted quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, inputs other than quoted prices that are observable, and inputs derived from or corroborated by observable market data.
- Level 3 Inputs are unobservable inputs which reflect the reporting entity's own assumptions on what assumptions the market participants would use in pricing the asset or liability based on the best available information.

The Company did not identify any assets or liabilities that are required to be presented on the balance sheets at fair value in accordance with ASC Topic 820.

Due to the short-term nature of all financial assets and liabilities, their carrying value approximates their fair value as of the balance sheet dates.

Stock-Based Compensation

The Company accounts for stock-based compensation costs under the provisions of ASC 718, Compensation—Stock Compensation, which requires the measurement and recognition of compensation expense related to the fair value of stock-based compensation awards that are ultimately expected to vest. Stock-based compensation expense recognized includes the compensation cost for all stock-based payments granted to employees, officers, and directors based on the grant date fair value estimated in accordance with the provisions of ASC 718. ASC 718 is also applied to awards modified, repurchased, or cancelled during the periods reported. Stock-based compensation is recognized as expense over the employee's requisite vesting period and over the nonemployee's period of providing goods or services. Pursuant to ASC 718, the Company can elect to either recognize the expenses on a straight-line or graded basis and has elected to do so under the straight-line basis.

Basic and Diluted Net Loss per Common Share

Basic loss per common share is computed by dividing the net loss by the weighted average number of shares of common stock outstanding for each period. Diluted loss per share is computed by dividing the net loss by the weighted average number of shares of common stock outstanding plus the dilutive effect of shares issuable through the common stock equivalents. The weighted-average number of common shares outstanding excludes common stock equivalents because their inclusion would be anti-dilutive. As of December 31, 2022, 450,000 stock options were excluded from dilutive earnings per share as their effects were anti-dilutive.

Income Taxes

The Company accounts for income taxes pursuant to the provision of ASC 740 "Accounting for Income Taxes," which requires, among other things, an asset and liability approach to calculating deferred income taxes. The asset and liability approach requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. A valuation allowance is provided to offset any net deferred tax assets for which management believes it is more likely than not that the net deferred asset will not be realized.

The Company follows the provision of the ASC 740 related to Accounting for Uncertain Income Tax Position. When tax returns are filed, it is more likely than not that some positions taken would be sustained upon examination by the taxing authorities, while others are subject to uncertainty about the merits of the position taken or the amount of the position that would be ultimately sustained. In accordance with the guidance of ASC 740-10, the benefit of a tax position is recognized in the financial statements in the period during which, based on all available evidence, management believes it is most likely that not that the position will be sustained upon examination, including the resolution of appeals or litigation processes, if any. Tax positions taken are not offset or aggregated with other positions.

Tax positions that meet the more-likely-than-not recognition threshold are measured as the largest amount of tax benefit that is more than 50% likely of being realized upon settlement with the applicable taxing authority. The portion of the benefits associated with tax positions taken that exceeds the amount measured as described above should be reflected as a liability for uncertain tax benefits in the accompanying balance sheet along with any associated interest and penalties that would be payable to the taxing authorities upon examination. The Company believes its tax positions will more likely than not be upheld upon examination. As such, the Company has not recorded a liability for uncertain tax benefits.

The federal and state income tax returns of the Company are subject to examination by the Internal Revenue Service and state taxing authorities, generally for three years after they were filed. The Company is in the process of filing the tax returns for the 2022 year. After review of the prior year financial statements and the results of operations through December 31, 2022, the Company has recorded a full valuation allowance on its deferred tax asset.

Recent Accounting Pronouncements

In December 2019, the FASB issued ASU 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes ("ASU 2019-12"), as part as part of its overall simplification initiative to reduce costs and complexity of applying accounting standards while maintaining or improving the usefulness of the information provided to users of financial statements. Amendments include removal of certain exceptions to the general principles of ASC 740, Income Taxes and simplification in several other areas such as accounting for a franchise tax (or similar tax) that is partially based on income. ASU 2019-12 is effective for public business entities for annual reporting periods beginning after December 15, 2020, and interim periods within those reporting periods. The adoption of this ASU did not have a material effect on the Company's financial statements.

Subsequent Events

The Company has evaluated all transactions through the date the consolidated financial statements were issued for subsequent event disclosure consideration.

NOTE 4 – CARVE-OUT CRITERIA AND ASSUMPTIONS

The carve-out statements of comprehensive income, as set forth above and which was the subject of the statement contained herein, reflect direct revenues and expenses and allocations of indirect expenses related to certain support functions that are provided on a centralized basis by Chromocell Holdings. These expenses, assets, and liabilities have been allocated to the Company on the basis of direct usage when identifiable, with others allocated based on relevant data criteria.

- Employment related expenses – allocated all Chromocell direct salaries and an allocation of headquarters salaries based on headcounts.
- General and administrative expenses and Professional fees – allocated all direct Chromocell related expenses and corporate expense have been allocated to reflect the utilization of those corporate services by the Company.
- Research and development expenses – all Research and development expenses are direct Chromocell expenses.
- Rent and related expenses and security deposits – applied a ratio based on floor space used by Chromocell.
- Long lived assets – long lived assets are owned by Chromocell Holdings Inc and under shared use by its components including the Company. Operating expenses are allocated that reflect the usage of the long-lived asset by the Company.
- Accounts payable and accrued expenses – allocated all direct Chromocell liabilities and an allocation corporate expense reflecting the utilization of those corporate services by the Company.
- PPP loan and PPP loan forgiveness – allocated to reflect the utilization of the proceeds by the Company.
- Bridge loan – the bridge loan was fully allocated to the Company. (See Note 6)

Chromocell Holdings uses a centralized approach to cash management of its operations. Any cash excess over comprehensive income earned by the Company were transferred to Chromocell Holdings through "net parent investment." Accordingly, none of the Chromocell Holdings cash and cash equivalents, have been assigned to the Company in the carve-out combined financial statements.

As these carve-out financial statements present a portion of the business of Chromocell Holdings, which does not constitute a separate legal entity for the purposes of carve-out financial statements, the net assets of the Chromocell Holdings have been presented as parent's net deficit. Except for the PPP loan, Chromocell Holdings third-party bank loans, related party loans and the related interest expense have not been included in the carve-out financial statements for any of the periods presented. Chromocell is not the legal obligor on those loans, and they were not directly attributable to the Chromocell operations.

As the lease is held by Chromocell Holdings, the Company does not have the right to control the use of the space being leased and only shares the space. As such, there is no lease liability or right of use asset recorded for Chromocell.

Management believes the assumptions underlying the carve-out combined financial statements, including the assumptions regarding allocation of expenses, are reasonable.

For the year ended December 31, 2022, the financial statements reflect Chromocell as a stand-alone entity.

NOTE 5 – RELATED PARTY TRANSACTIONS

In May 2021, Chromocell Holdings Corporation ("Chromocell Holdings"), the Company and Flamands International Holdings LLC ("Flamands") (a related party) commenced negotiations regarding a three-party agreement whereby Chromocell Holdings would spin off assets and liabilities associated with its therapeutics operations to the Company and Flamands would provide funding to the Company. As the parties contemplated various transactional structures, an agreement was never effectuated because significant details concerning the assumption of liabilities were never finalized. Chromocell Holdings instead provided multiple advances to the Company for its operations from May 2021 through August 2022 totaling $1,900,000. At December 31, 2022, all amounts previously received from Chromocell Holdings by the Company were recorded as additional paid in capital on the Company's financial statements.

Following execution of the Contribution Agreement, Chromocell Holdings sold 5,999,667 of the shares it owned in the Company to Flamands, making Flamands the majority stockholder of the Company, and the Managing Member of Flamands is also a member of the Company's board of directors. The agreement provides Flamands an option to acquire an additional 667,000 shares of the common stock Chromocell Holdings owns of the Company prior to the public filing of a registration statement relating to the Company's initial public offering. The Company was not a party to the sale, and the option was exercised on September 22, 2022.

On August 10, 2022, the Company and Chromocell Holdings entered into the Contribution Agreement effecting (1) the contribution by Chromocell Holdings to the Company of assets related to Chromocell Holding's Therapeutics Business, including all intellectual property related to Chromocell Holding's NaV1.7 program and its clinical-stage CC8464 lead compound, (2) assumption by the Company of direct-liabilities related to Chromocell Holding's historical Therapeutics Business in the amount of $1,556,323 as well as a cash payment by the Company to Chromocell Holdings of $597,038 and (3) the issuance by the Company to Chromocell Holdings of 10,000,000 shares of its common stock and 600,000 shares of its Series A Convertible Preferred Stock.

Pursuant to the Series A Convertible Preferred Stock Certificate of Designation, the Series A Convertible Preferred Stock ranks on par with the Company's common stock, will not pay a dividend, has no voting rights and shall be mandatorily converted into shares of Common Stock at the close of the IPO. The Series A Convertible Preferred Stock is convertible into an aggregate number of shares of Common Stock determined by (i) multiplying the number of shares of Series A Convertible Preferred Stock by $4.37 and then (ii) dividing the value in the preceding clause (i) by 87.5% of the price at which the shares of Common Stock are sold to the public in the IPO. The shares of Common Stock received upon conversion of the Series A Convertible Preferred Stock will be subject customary lock-up provisions as requested by the underwriter.

As part of the contribution agreement, Chromocell Holdings transferred to the Company assets related to Chromocell Holding's Therapeutics Business, including all the patents and intellectual property related to Chromocell Holding's NaV1.7 program and its clinical-stage CC8464 lead compound.

The Company analyzed the transaction for common control pursuant to ASC 805-50. While the term "common control" is not defined, there are examples in the Transactions between Entities under Common Control Subsection that, among others, indicates that "an entity [that] charters a newly formed entity and then transfers some or all of its assets to the newly chartered entity" is an example of a transaction involving common control, yielding recordation of assets at the transferors' historical cost basis. This directly mirrors the terms underlying the Contribution Agreement whereby Holdings established the Company as wholly owned subsidiary and transferred the Intangibles in return to 100% of the stock of the Company. Further, Staff Accounting Bulletin ("SAB") Topic 5G dictates that "transfers of nonmonetary assets to a company by its promoters or shareholders in exchange for stock prior to or at the time of the company's initial public offering normally should be recorded at the transferors' historical cost basis determined under GAAP." As a result, pursuant to ASC 805-50 and SAB Topic 5G, the Company recorded the net assets acquired at historical value when the Contribution Agreement was executed.

The following presents the purchase price allocation.

Purchase Price	
Advances from Chromocell Corporation	$ 1,900,000
Total purchase price	$ 1,900,000
Allocation of purchase price	
Cash	$ (42,606)
Accounts payable and accrued expenses	2,463,162
Accrued compensation	63,873
Bridge loan, net of debt discount	360,006
Parent's net deficit	(2,844,435)
Equity	1,900,000
Total allocation of purchase price	$ 1,900,000

Prior to the Contribution Date, the Company had only nominal assets and liabilities. Since this was a spin off transaction in accordance with Accounting Standards Codification ("ASC") 805, "Business Combinations", and SAB Topic 5G, the Company recognized the contributed assets from Chromocell Holdings at their historical carrying amounts on the Contribution Date because the two entities were under common control. Chromocell Holdings had two lines of business, the therapeutics business, which was transferred to the Company (the "Therapeutics Business") and a flavors business, which remains with Chromocell Holdings.

Accordingly, the financial statements presented in this prospectus for periods prior to the Contribution Date, the December 31, 2021 financial statements, have been prepared on a "carve-out" basis from the financial statements of Chromocell Holdings to represent the Company's financial position and performance as if it had existed on a stand-alone basis.

All of the assets, liabilities and results of operations of the Company as of and for the periods prior to the Contribution Date were identified based on the assets contributed to the Company from Chromocell Holdings. Management believes the assumptions underlying the Company's carve-out financial statements are reasonable. Nevertheless, the financial statements may not include all of the actual expenses that would have been incurred had the Company operated as a standalone company during the periods presented,

and may not reflect the Company's results of operations, financial position and cash flows had the Company operated as a standalone company during the periods presented. Actual costs that would have been incurred if the Company had operated as a standalone company would depend on multiple factors, including organizational structure and strategic decisions made in various areas, including information technology and infrastructure.

Contribution Agreement (Unaudited)

As of December 31, 2022, the Company's analysis of the complex provisions contained in the Contribution Agreement were finalized, resulting in changes to the preliminary, unaudited results presented in the financial statements as of and for the nine months ended September 30, 2022.

The results of the changes to the Balance Sheet at September 30, 2022 were:

	Preliminary (as reported)	Change	Final
Intangible assets	$ 44,290,462	$ (44,290,462)	$ -
TOTAL ASSETS	44,290,462	(44,290,462)	-
Additional paid in capital	46,672,705	(44,783,305)	1,889,400
Parent's net deficit	(5,400,550)	492,843	(4,097,707)
TOTAL STOCKHOLDERS' EQUITY / PARENT'S NET DEFICIT	41,282,755	(44,290,462)	(3,007,707)
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY / PARENT'S NET DEFICIT	44,463,702	(44,290,462)	173,240

The results of the changes to the Statement of Operations for the nine months ended September 30, 2022 were:

	Preliminary (as reported)	Change	Final
General and administrative expenses	$ 889,122	$ (517,839)	$ 371,283
Total Operating Expenses	1,621,182	(517,839)	1,103,343
Net loss before provision for income taxes	(1,719,000)	517,839	(1,201,161)
Net loss	(1,719,000)	517,839	(1,201,161)
Net loss per common share - basic and diluted	(0.92)	0.28	(0.64)

The results of the changes to the Statement of Changes in Stockholders' Equity for the nine months ended September 30, 2022 were:

	Preliminary (as reported)						
	Common Shares	Par	Preferred Shares	Preferred Shares Par	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balance, December 31, 2021	-	$ -	-	$ -	$ -	$ (3,680,267)	$ (3,680,267)
Fair value of shares issued in contribution agreement	10,000,000	10,000	600,000	600	46,672,705	-	46,672,705
Net contributions from Chromocell Corporation	-	-	-	-		(1,283)	(1,283)
Net loss	-	-	-	-	-	(1,719,000)	(1,719,000)
Balance, September 30, 2022	10,000,000	$ 10,000	600,000	$ 600	$ 46,672,705	$ (5,400,550)	$ 41,282,755

	Common Shares	Par	Preferred Shares	Final Preferred Shares Par	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balance, December 31, 2021	-	$ -	-	$ -	$ -	$ (3,680,267)	$ (3,680,267)
Fair value of shares issued in contribution agreement	10,000,000	10,000	600,000	600	1,889,400	-	1,900,000
Net contributions from Chromocell Corporation	-	-	-	-		(26,729)	(26,279)
Net loss	-	-	-	-	-	(1,201,161)	(1,201,161)
Balance, September 30, 2022	10,000,000	$ 10,000	600,000	$ 600	$ 1,889,400	$ (4,907,707)	$ (3,007,707)

The results of the changes to the Statement of Cash Flow for the nine months ended September 30, 2022 were:

	Preliminary (as reported)	Change	Final
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net loss	$ (1,719,000)	$ 517,839	$ (1,201,161)
Amortization of intangible assets	517,839	(517,839)	-
CASH FLOWS FROM FINANCING ACTIVITIES:			
Net contribution from Chromocell Corporation	(1,283)	(24,996)	(26,279)
Funds received from contribution agreement	(775,054)	24,996	(800,050)
NONCASH INVESTING AND FINANCING ACTIVITIES:			
Fair value of shares issued in contribution agreement	46,683,305	(46,683,305)	-

NOTE 6 – NOTE PAYABLE

On February 4, 2022, the Company entered into a note for $450,000 with a third party. This note has an original issuance discount of $150,000, representing an implicit interest rate of 50%, a maturity date of February 3, 2023, and accrues no interest beyond the original issuance discount. As of December 31, 2022, there was an unamortized debt discount of $14,370. There was $135,630 in amortization of debt discount included in interest expense on the statement of operations for the year ended December 31, 2022.

On February 27, 2023, the note agreement was amended. The maturity date was extended from its original due date of February 3, 2023 to May 15, 2023, in return for the Company agreeing to pay 2% per month in accrued interest and the third party agreeing to settle its outstanding debt, including accrued interests, in shares of Common Stock at the IPO.

On December 6, 2022, the Company and Mr. Todd Davis, one of the Company's directors, entered into a note payable agreement (the "Director Note") for $175,000. The Director Note has an original issuance discount of $75,000, no other interest and matures on December 31, 2023, or, if earlier to occur, upon the closing of an underwritten offering of securities resulting in at least $15 million in gross proceeds. Mr. Davis, as lender, has the right but not the obligation to subscribe to the underwritten offering by presenting the Director Note in whole or in part to purchase such securities as legal tender therefor, on a dollar-for-dollar basis based upon the offering price of such securities to the public. The Director Note bears no interest except in the case of certain events of default. As of December 31, 2022, there was an unamortized debt discount of $70,200. There was $4,800 in amortization of debt discount included in interest expense on the statement of operations for the year ended December 31, 2022.

On April 22, 2020, Chromocell Holdings entered into a PPP loan of which $241,793 was allocated to the Company. This note accrued interest at a rate of 1% per annum. This loan is due on April 22, 2022. At December 31, 2021 and 2020, the loan had accrued interest of $0 and $1,676. During the year ended December 31, 2021, this loan was fully forgiven, with a total of $241,793 in principal forgiven and $1,929 in interest forgiven being allocated to the Company.

NOTE 7 – STOCKHOLDERS' EQUITY

Common Stock

During the year ended December 31, 2022, the Company issued 10,000,000 shares of common stock under the Contribution Agreement. (See Note 5)

Preferred Stock

During the year ended December 31, 2022, the Company issued 600,000 shares of preferred stock under the Contribution Agreement. (See Note 5)

Stock-Based Compensation

On January 10, 2023, the Company granted a total of 450,000 options to purchase shares of the Company's common stock to employees and consultants of the Company pursuant to their employment or consulting agreements, with such vesting commencing on October 1, 2022. These options had a grant date fair value of $1,122,244. These options have an exercise price of $2.52, a term of 10 years, and vest quarterly over ten quarters.

There were 450,000 options outstanding as of December 31, 2022. The fair value of each stock option granted during the year ended December 31, 2022 was estimated using the Black-Scholes Option Pricing Model and assumptions and or factors as follows:

Exercise price	$ 2.52
Expected dividend yield	0%
Risk free interest rate	3.83%
Expected life in years	10
Expected volatility	158%

The risk-free interest rate assumption for options granted is based upon observed interest rates on the United States Government Bond Equivalent Yield appropriate for the expected term of the options.

The Company determined the expected volatility assumption for options granted using the historical volatility of comparable public companies' common stock. The Company will continue to monitor peer companies and other relevant factors used to measure expected volatility for future option grants, until such time that the Company's common stock has enough market history to use historical volatility.

The dividend yield assumption for options granted is based on the Company's history and expectation of dividend payouts. The Company has never declared nor paid any cash dividends on its common stock, and the Company does not anticipate paying any cash dividends in the foreseeable future.

The Company recognizes option forfeitures as they occur as there is insufficient historical data to accurately determine future forfeitures rates.

The following is an analysis of the stock option grant activity:

	Number	Weighted Average Exercise Price	Weighted Average Remaining Life
Stock Options			
Outstanding December 31, 2021	-	$ -	-
Granted	450,000	$ 2.52	9.76
Expired	-	$ -	-
Exercised	-	$ -	-
Outstanding December 31, 2022	450,000	$ 2.52	9.76
Exercisable December 31, 2022	40,000	2.52	9.76

A summary of the status of the Company's nonvested options as of December 31, 2022, and changes during the years ended December 31, 2022 and 2021, is presented below:

Non-vested Options	Options	Weighted-Average Exercise Price
Non-vested at December 31, 2021	-	$ -
Granted	450,000	$ 2.52
Vested	(40,000)	$ 2.52
Forfeited	-	$ -
Non-vested at December 31, 2022	410,000	$ 2.52

The total number of options granted during the years ended December 31, 2022 and 2021 was 450,000 and 0, respectively. The exercise price for these options was $2.52 per share and there was an intrinsic value of $0.

The Company recognized stock-based compensation expense related to option vesting amortization of $110,146 and $0 for the years ended December 31, 2022 and 2021, respectively, in which is included in general and administrative expenses in the statement of operations.

As of December 31, 2022, the unamortized stock option expense was $1,012,098. As of December 31, 2022, the weighted average period for the unamortized stock compensation to be recognized is 1.54 years.

NOTE 8 – INCOME TAX

The Company follows the asset and liability method of accounting for income taxes under ASC 740, "Income Taxes." Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statements carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that included the enactment date. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount expected to be realized.

ASC 740 prescribes a recognition threshold and a measurement attribute for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. For those benefits to be recognized, a tax position must be more likely than not to be sustained upon examination by taxing authorities. The Company recognizes accrued interest and penalties related to unrecognized tax benefits as income tax expense. There were no unrecognized tax benefits and no amounts accrued for interest and penalties as of December 31, 2020. The Company is currently not aware of any issues under review that could result in significant payments, accruals or material deviation

from its position. The Company is subject to income tax examinations by major taxing authorities since inception. The Company used the separate return method for the preparation of the income tax provision.

For the years ended December 31, 2022 and 2021, there was no income tax provision recorded. The tax benefit was added to the net operating loss to which a full valuation allowance was applied.

A reconciliation of income tax expense (benefit) computed at the statutory federal income tax rate to income taxes as reflected in the financial statements is as follows:

	2022	2021
Income taxes at U.S. statutory rate	19.11%	19.11%
Income taxes at state rate	9.00%	9.00%
Change in valuation allowance	(28.11)%	(28.11)%
Total provision for income taxes	-%	-%

Deferred taxes are recognized for temporary differences between the basis of assets and liabilities for financial statement and income tax purposes. The significant components of the Company's deferred tax assets and liabilities as of December 31, 2022 and 2021 are comprised of the following:

	December 31,	
	2022	2021
Deferred tax assets		
Net operating loss carryforwards	$ 4,053,204	$ 2,726,414
Total deferred tax assets	4,053,204	2,726,414
Valuation allowance	(4,053,204)	(2,726,414)
Net deferred tax assets	-	-
Deferred tax liabilities		
Total deferred tax liabilities	-	-
Net deferred taxes	$ -	$ -

For the years ended December 31, 2022 and 2021, the Company recorded a full valuation allowance of its deferred tax assets.

The Company has a net operating loss carryforward for federal tax purposes totaling approximately $6.3 million at December 31, 2022. Approximately $6.3 million net operating losses incurred in fiscal 2018 through fiscal 2022 that do not expire and can be utilized to offset up to 80% of future taxable income under the Tax Cuts and Jobs Act.

Utilization of NOL and tax credit carryforwards may be subject to a substantial annual limitation due to ownership change limitations that may have occurred or that could occur in the future, as required by the Internal Revenue Code (the "Code"), as amended, as well as similar state provisions. In general, an "ownership change" as defined by the Code results from a transaction or series of transactions over a three-year period resulting in an ownership change of more than 50 percent of the outstanding stock of a company by certain stockholders or public groups.

NOTE 9 – SUBSEQUENT EVENTS

Employment Agreement

The Company entered into an employment agreement with Christian Kopfli, dated January 10, 2023. Pursuant to such agreement, Mr. Kopfli has agreed to serve as the Company's Chief Executive Officer and Vice-Chairman of its Board of Directors in consideration for an annualized salary of $275,000, payable in cash at the rate of $5,000 per month (a minimum of $1,125 per week), with the remainder accrued and paid as of the earliest of a sale or liquidation of the Company, the Company's bankruptcy or three days after the approval by the Board of a funded budget with appropriately established milestones subsequent to the effective date of a Form S-1 registration statement ("Post-registration Approval"). Mr. Kopfli also agrees, as of Post-registration Approval, to resign as Chief Executive Officer of Chromocell Corporation although he may continue to service on the Board of Directors of Chromocell Corporation, including as its Board Chair. The employment agreement provides that Mr. Kopfli receive an option to acquire 200,000 shares of our Common Stock, vesting quarterly over 10 quarters and beginning October 1, 2022. This option shall have an exercise price equal to the fair market value of our Common Stock on the date of grant and shall expire on the 10th anniversary of the date of grant. The option was awarded as of January 10, 2023. The employment agreement contemplates an annual bonus, as determined by the Board. The target bonus is 50% of Mr. Kopfli's annualized salary and will be based on achievement of performance goals and objectives agreed to by Mr. Kopfli and the Board in January of each year. The Board may increase the bonus in recognition of performance in excess of the performance objectives. Any bonus shall only be paid if Mr. Kopfli remains employed on the date of payment, which will be no later than March 15 of the year following the year to which the bonus relates. Any bonus for 2022 is payable solely in the Board's discretion.

Pursuant to Mr. Kopfli's employment agreement, in the event he is involuntarily terminated by the Company other than for "Cause" or if he resigns for "Good Reason," he is entitled to receive (i) six months of salary at the same rate existing immediately prior to his termination, (ii) his target bonus, if performance goals and objectives have been established for the year and prorated for the period of service, and (iii) six months of additional vesting credit with respect to any outstanding time-based equity awards. "Cause" and "Good Reason" are each defined in the employment agreement.

Finally, Mr. Kopfli agrees to certain non-solicitation and non-competition provisions for a period of 12 months following termination and to certain confidentiality obligations. Additional terms and conditions are set forth in the employment agreement.

Consulting Agreement

The Company entered into a Consultant Agreement with Camden Capital LLC, dated January 10, 2023. This consulting agreement replaces an agreement with Mr. Francis Knuettel II dated June 2, 2022, and pursuant to the agreement, Camden Capital LLC agrees to provide the services of Mr. Knuettel, who shall serve as our Chief Financial and Strategy Officer, Treasurer and Secretary.

Under the consulting agreement, Camden Capital LLC accrued a consulting fee for the period June 6, 2022 through August 31, 2022 of $10,000 per month and effective September 1, 2022, began to accrue a consulting fee of $20,000 per month, payable in cash at the rate of $5,000 per month (a minimum of $1,125 per week), with the remainder accrued. All accrued consulting fees are payable as of the earliest of a sale or liquidation of the Company, the Company's bankruptcy or three days after Post-registration Approval. The consulting agreement provides for the following equity awards to Camden Capital LLC: (i) an option, awarded as of January 10, 2023, to acquire 200,000 shares of our Common Stock, vesting quarterly over 10 quarters and beginning October 1, 2022, with the option having an exercise price equal to the fair market value of our Common Stock on the date of grant and expiring on the 10th anniversary of the date of grant; (ii) an option, awarded as of January 10, 2023, to acquire 25,000 shares of our Common Stock, vesting 100% upon the sooner of the sale of the Company or Post-registration Approval, with the option having an exercise price equal to the fair market value of our Common Stock on the date of grant and expiring on the 10th anniversary of the date of grant; and (iii) a restricted stock unit ("RSU"), awarded as of January 10, 2023, of 150,000 shares of our Common Stock, vesting 100% on the day after the first trading window that opens after Post-registration Approval.

The consulting agreement contemplates an additional consulting fee, as determined by the Board. The potential additional consulting fee is 50% of the annualized consulting fee and will be based on achievement of performance goals and objectives established by the Board in concert with Mr. Knuettel in January of each year. The Board may increase the potential additional consulting fee in recognition of performance in excess of the performance objectives. Any amount shall only be paid if Camden Capital LLC continues to provide consulting services to the Company as of the date of payment, which will be no later than March 15 of the year following the year to which the additional consulting fee relates. Any additional consulting fee for 2022 is payable solely in the Board's discretion.

Pursuant to the consulting agreement, in the event the relationship with Camden Capital LLC is involuntarily terminated by the Company other than for "Cause" or if Camden Capital LLC terminates the relationship for "Good Reason," Camden Capital LLC is entitled to receive (i) six months of consulting fees at the same rate existing immediately prior to termination, (ii) a potential additional consulting fee, if performance goals and objectives have been established for the year and prorated for the period of service, and (iii) six months of additional vesting credit with respect to any outstanding time-based equity awards. "Cause" and "Good Reason" are each defined in the consulting agreement.

Finally, Camden Capital LLC and Mr. Knuettel agree to certain non-solicitation and non-competition provisions for a period of 12 months following termination of the relationship and to certain confidentiality obligations. Additional terms and conditions are set forth in the consulting agreement.

Bridge Financing

On April 17, 2023, the Company and entered into a bridge loan (referred to herein as the Bridge Financing) with various accredited investors, including Boswell Prayer Ltd., Motif Pharmaceuticals Ltd, Aperture Healthcare Ventures Ltd., MDB Merchants Park LLC, Balmoral Financial Group LLC and AME EQUITIES LLC (each a related party). The Bridge Financing consists of senior secured convertible notes that have a maturity date of October 17, 2023. Such notes accrue interest on the unpaid principal amount at a rate of eight percent (8%) per annum and will automatically convert into shares of Common Stock at the initial public offering at a twenty percent (20%) discount to the price per IPO Share.

Option Issuances

On January 10, 2023, the Company issued a total of 800,000 options to purchase shares of the Company's common stock to directors and officers, pursuant to their serving as a director or their consulting or employment agreements, respectively. These options have an exercise price of $2.52, a term of 10 years, and 600,000 of these options will vest over 2.5 years and 200,000 of the options will vest upon the Company's establishment of a second clinical program, which shall include an acquisition or entrance into a joint venture.

CHROMOCELL THERAPEUTICS CORPORATION
CONDENSED BALANCE SHEETS

	June 30, 2023 (Unaudited)	December 31, 2022
ASSETS		
CURRENT ASSETS		
Cash	$ 81,893	$ 55,074
TOTAL CURRENT ASSETS	$ 81,893	$ 55,074
LIABILITIES AND STOCKHOLDERS' DEFICIT		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	$ 3,542,217	$ 2,993,920
Accrued compensation	451,816	221,875
Bridge loan, net of debt discount	450,000	435,630
Loan payable	90,157	-
Loan payable - related party	443,203	104,800
Due to parent	5,386	5,386
TOTAL CURRENT LIABILITIES	4,982,779	3,761,611
COMMITMENTS AND CONTINGENCIES		
STOCKHOLDERS' DEFICIT		
Preferred stock, $0.0001 par value, 700,000 shares authorized, 600,000 and 600,000 shares issued and outstanding	60	60
Common stock, $0.0001 par value, 100,000,000 shares authorized, 8,846,296 and 10,000,000 shares issued and outstanding, respectively	885	1,000
Additional paid in capital	3,156,933	2,431,259
Accumulated deficit	(8,058,764)	(6,138,856)
TOTAL STOCKHOLDERS' DEFICIT	(4,900,886)	(3,706,537)
TOTAL LIABILITIES AND STOCKHOLDERS' DEFICIT	$ 81,893	$ 55,074

The accompanying notes are an integral part to these condensed financial statements.

CHROMOCELL THERAPEUTICS CORPORATION
CONDENSED STATEMENTS OF OPERATIONS

	For the Three Months Ended June 30, 2023 (Unaudited)	For the Three Months Ended June 30, 2022 (Unaudited)	For the Six Months Ended June 30, 2023 (Unaudited)	For the Six Months Ended June 30, 2022 (Unaudited)
OPERATING EXPENSES				
General and administrative expenses	$ 537,876	$ 162,761	$ 1,015,506	$ 228,054
Research and development	49,955	26,573	236,072	69,166
Professional fees	189,329	107,321	440,165	287,280
Total Operating Expenses	777,160	296,655	1,691,743	584,500
NET LOSS FROM OPERATIONS	(777,160)	(296,655)	(1,691,743)	(584,500)
OTHER INCOME (LOSS)				
Interest expense	(176,187)	(37,401)	(228,165)	(60,006)
Total Other Loss	(176,187)	(37,401)	(228,165)	(60,006)
Net loss before provision for income taxes	(953,347)	(334,056)	(1,919,908)	(644,506)
Provision for income taxes	-	-	-	-
NET LOSS	$ (953,347)	$ (334,056)	$ (1,919,908)	$ (644,506)
Net loss per common share - basic and diluted	$ (0.10)	$ -	$ (0.20)	$ -
Weighted average number of common shares outstanding during the period - basic and diluted	9,012,332	-	9,503,438	-

The accompanying notes are an integral part to these condensed financial statements.

CHROMOCELL THERAPEUTICS CORPORATION
CONDENSED STATEMENT OF CHANGES IN STOCKHOLDERS' DEFICIT
FOR THE THREE AND SIX MONTHS ENDED JUNE 30, 2023
(Unaudited)

	Common Shares	Par	Preferred Shares	Preferred Shares Par	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
Balance December 31, 2022	10,000,000	$ 1,000	600,000	$ 60	$ 2,431,259	$ (6,138,856)	$ (3,706,537)
Stock-based compensation					272,221		272,221
Net loss						(966,561)	(966,561)
Balance March 31, 2023	10,000,000	1,000	600,000	60	2,703,480	(7,105,417)	(4,400,877)
Stock-based compensation					327,338		327,338
Common Stock issued for extension of bridge loan	50,000	5			125,995		126,000
Shares forfeited	(1,203,704)	(120)			120		-
Net loss						(953,347)	(953,347)
Balance June 30, 2023	8,846,296	$ 885	600,000	$ 60	$ 3,156,933	$ (8,058,764)	$ (4,900,886)

The accompanying notes are an integral part to these condensed financial statements.

CHROMOCELL THERAPEUTICS CORPORATION
CONDENSED STATEMENT OF CHANGES IN PARENT'S NET DEFICIT
(Unaudited)

	For the Six Months Ended June 30, 2022 (Unaudited)
Parent's net deficit, beginning of period	$ (3,680,267)
Net loss	(644,506)
Net contribution from Chromocell Corporation	5,127
Parent's net deficit, end of period	$ (4,319,646)

The accompanying notes are an integral part to these financial statements.

CHROMOCELL THERAPEUTICS CORPORATION
CONDENSED STATEMENTS OF CASH FLOWS

	For the Six Months Ended June 30, 2023 (Unaudited)	For the Six Months Ended June 30, 2022 (Unaudited)
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (1,919,908)	$ (644,506)
Adjustments to reconcile net loss to net cash used in operating activities		
Amortization of debt discount	49,122	60,006
Common stock issued for extension of bridge loan	126,000	-
Stock-based compensation	599,559	-
Changes in operating assets and liabilities:		
Security deposit	-	(99,694)
Accounts payable and accrued expenses	548,297	41,454
Accrued compensation	229,941	-
Net Cash Used In Operating Activities	(352,619)	(642,740)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from loan net of debt discount	90,157	-
Proceeds from loan net of debt discount - related party	303,651	-
Proceeds from bridge loan net of debt discount	-	300,000
Net contribution from Chromocell Corporation	-	5,127
Advance from Chromocell Corporation	-	340,000
Net Cash Provided By Financing Activities	393,808	645,127
NET INCREASE IN CASH	26,819	2,387
CASH AT BEGINNING OF PERIOD	55,074	-
CASH AT END OF PERIOD	$ 81,893	$ 2,387
Supplemental cash flow information:		
Cash paid for income taxes	$ -	$ -
Cash paid for interest expense	$ -	$ -
NONCASH INVESTING AND FINANCING ACTIVITIES:		
Original issuance discount on notes payable	$ -	$ 150,000
Shares forfeited	$ 120	$ -

The accompanying notes are an integral part to these condensed financial statements.

CHROMOCELL THERAPEUTICS CORPORATION
NOTES TO CONDENSED FINANCIAL STATEMENTS
(Unaudited)

NOTE 1 – ORGANIZATION AND NATURE OF BUSINESS

Company Background

Chromocell Therapeutics Corporation ("Chromocell" or the "Company") was incorporated in the State of Delaware on March 19, 2021. On August 10, 2022, the Company entered into that certain Contribution Agreement (the "Contribution Agreement") with Chromocell Corporation, a Delaware corporation ("Chromocell Holdings"), pursuant to which, effective July 12, 2022 (the "Contribution Date"), Chromocell Holdings contributed all assets and liabilities related to Chromocell Holdings' historical therapeutic business, including all patents, pre-clinical and Phase I study results and data, and trade secrets related to the CC8464 compound to the Company. (See Note 4)

The Company is a development stage life sciences company which improves consumer products and patient lives through breakthrough science and technologies. The Company is focused on the discovery and development of therapeutics through the use of pioneering Chromovert® technology. Chromovert technology enables the Company to use rare cells ideally suited for effective high-throughput screening. The Company's therapeutics pipeline is currently focused on analgesics and rare diseases, where Chromovert technology has proven highly effective in the rapid identification of potential new drug candidates.

The Company has a limited operating history and has not generated revenue from intended operations. The Company's business and operations are sensitive to general business and economic conditions in the U.S. and worldwide along with local, state, and federal governmental policy decisions. A host of factors beyond the Company's control could cause fluctuations in these conditions. Adverse conditions may include changes in the biotechnology regulatory environment, technological advances that render our technologies obsolete, availability of resources for clinical trials, acceptance of technologies into the medical community, and competition from larger, more well-funded companies.

On January 30, 2020, the World Health Organization declared the COVID-19 novel coronavirus outbreak a "Public Health Emergency of International Concern" and on March 10, 2020, declared it to be a pandemic. Actions taken around the world to help mitigate the spread of the coronavirus include restrictions on travel, and quarantines in certain areas, and forced closures for certain types of public places and businesses. The COVID-19 coronavirus and actions taken to mitigate it have had and are expected to continue to have an adverse impact on the economies and financial markets of many countries, including the geographical area in which the Company operates. On May 11, 2023, the United States government declared an end to the COVID-19 pandemic, but it is reasonably possible that future capital raising efforts and additional development of our technologies may still be negatively affected.

NOTE 2 – GOING CONCERN ANALYSIS

Management Plans

During the six months ended June 30, 2023, the Company had a net loss of $1,919,908 and cash of $81,893 at June 30, 2023. These factors indicate substantial doubt about the Company's ability to continue as a going concern for the twelve months following the issuance of these condensed financial statements. The accompanying condensed financial statements have been prepared assuming that the Company will continue as a going concern.

The condensed financial statements included in this report do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the matters discussed herein. While the Company believes in the viability of our strategy to generate sufficient revenue, control costs, and raise additional funds, when necessary, there can be no assurances to that effect. The Company's ability to continue as a going concern is dependent upon the ability to implement the business plan, generate sufficient revenues and to control operating expenses.

Liquidity and Capital Resources

At June 30, 2023, the Company had $0.1 million in cash and cash equivalents and a working capital deficit of approximately $4.9 million, compared to approximately $0.1 million in cash and cash equivalents and a working capital deficit of approximately $3.7 million at December 31, 2022.

Based on the Company's current projections, management believes that due to the lack of cash, revenue and accounts receivables there is substantial doubt about its ability to continue to operate as a going concern and fund its operations through at least the next twelve months following the issuance of these condensed financial statements, unless the Company can raise additional funds through an initial public offering. While the Company will continue to invest in its business and the development of CC8464, and potentially other molecules, and it is unlikely that the Company will generate product or licensing revenue during the next twelve months, so the Company will need to raise funds though the initial public offering or via private investors or both; However, there is no assurance that the Company will be able to raise such additional funds on acceptable terms, if at all. If the Company raises additional funds by issuing securities, existing stockholders may be diluted.

If adequate funds are not available, the Company may be required to curtail its operations or other business activities or obtain funds through arrangements with strategic partners or others that may require the Company to relinquish rights to certain technologies or potential markets.

NOTE 3 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

Prior to the execution of the Contribution Agreement between Chromocell and Chromocell Holdings (see Note 4), Chromocell did not constitute a separate legal entity or group and as such, stand-alone financial statements were not previously prepared for the Company. As a result, carve-out financial statements for Chromocell were prepared for the six months ended June 30, 2022, which include all of Chromocell's operations which have been conducted within Chromocell Holdings, which also has other activities. These condensed financial statements have been prepared on a stand-alone basis derived from the condensed financial statements and related accounting records of Chromocell Holdings. The accompanying carve-out condensed financial statements present the historical financial position, results of operations, changes in net assets and cash flows of the Company as it was historically conducted, as more fully described below in Note 4. The financial information in these condensed financial statements does not necessarily include all the expenses that would have been incurred had the Company operated as a separate stand-alone entity and may not reflect results of operations, financial position and cash flows had the Company been a stand-alone company during the six months ended June 30, 2022.

With the execution of the Contribution Agreement on August 12, 2022, effective for the reporting period ended December 31, 2022 and all future reporting periods, the condensed financial statements reflect Chromocell as a stand-alone entity.

For all periods, the Company's condensed financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and the rules and regulations of the Securities and Exchange Commission ("SEC").

Use of Estimates

The preparation of condensed financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the condensed financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates made by management include, but are not limited to, estimating the useful lives of patent assets, realization of long-lived assets, valuation of deferred income taxes, unrealized tax positions and business combination accounting.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents. As of June 30, 2023 and December 31, 2022, the Company did not have any cash equivalents. As of June 30, 2023 and December 31, 2022, the Company did not have any deposits in excess of Federally insured limits.

Research and Development

We incur research and development costs during the process of researching and developing our technologies and future offerings. We expense these costs as incurred unless such costs qualify for capitalization under applicable guidance.

Below is a disaggregation of R&D expenses:

	For the Six Months Ended June 30, 2023	For the Six Months Ended June 30, 2022
Consultant	$ 23,300	$ 36,450
Lab Gas	-	4,893
Lab Cell Storage	17,753	23,929
IP Services	195,019	3,894
Total	$ 236,072	$ 69,166

Fair Value Measurements and Fair Value of Financial Instruments

The Company adopted FASB ASC Topic 820, Fair Value Measurements ("ASC Topic 820"). ASC Topic 820 clarifies the definition of fair value, prescribes methods for measuring fair value, and establishes a fair value hierarchy to classify the inputs used in measuring fair value as follows:

- Level 1 Inputs are unadjusted quoted prices in active markets for identical assets or liabilities available at the measurement date.
- Level 2 Inputs are unadjusted quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, inputs other than quoted prices that are observable, and inputs derived from or corroborated by observable market data.
- Level 3 Inputs are unobservable inputs which reflect the reporting entity's own assumptions on what assumptions the market participants would use in pricing the asset or liability based on the best available information.

The Company did not identify any assets or liabilities that are required to be presented on the balance sheets at fair value in accordance with ASC Topic 820.

Due to the short-term nature of all financial assets and liabilities, their carrying value approximates their fair value as of the balance sheet dates.

Stock-Based Compensation

The Company accounts for stock-based compensation costs under the provisions of ASC 718, Compensation—Stock Compensation, which requires the measurement and recognition of compensation expense related to the fair value of stock-based compensation awards that are ultimately expected to vest. Stock-based compensation expense recognized includes the compensation cost for all stock-based payments granted to employees, officers, and directors based on the grant date fair value estimated in accordance with the provisions of ASC 718. ASC 718 is also applied to awards modified, repurchased, or cancelled during the periods reported. Stock-based compensation is recognized as expense over the employee's requisite vesting period and over the nonemployee's period of providing goods or services. Pursuant to ASC 718, the Company can elect to either recognize the expenses on a straight-line or graded basis and has elected to do so under the straight-line basis.

Basic and Diluted Net Loss per Common Share

Basic loss per common share is computed by dividing the net loss by the weighted average number of shares of common stock outstanding for each period. Diluted loss per share is computed by dividing the net loss by the weighted average number of shares of common stock outstanding plus the dilutive effect of shares issuable through the common stock equivalents. The weighted-average number of common shares outstanding excludes common stock equivalents because their inclusion would be anti-dilutive. As of June 30, 2023, 1,878,000 stock options were excluded from dilutive earnings per share as their effects were anti-dilutive.

Income Taxes

The Company accounts for income taxes pursuant to the provision of ASC 740 "Accounting for Income Taxes," which requires, among other things, an asset and liability approach to calculating deferred income taxes. The asset and liability approach requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. A valuation allowance is provided to offset any net deferred tax assets for which management believes it is more likely than not that the net deferred asset will not be realized.

The Company follows the provision of the ASC 740 related to Accounting for Uncertain Income Tax Position. When tax returns are filed, it is more likely than not that some positions taken would be sustained upon examination by the taxing authorities, while others are subject to uncertainty about the merits of the position taken or the amount of the position that would be ultimately sustained. In accordance with the guidance of ASC 740-10, the benefit of a tax position is recognized in the condensed financial statements in the period during which, based on all available evidence, management believes it is most likely that not that the position will be sustained upon examination, including the resolution of appeals or litigation processes, if any. Tax positions taken are not offset or aggregated with other positions.

Tax positions that meet the more-likely-than-not recognition threshold are measured as the largest amount of tax benefit that is more than 50% likely of being realized upon settlement with the applicable taxing authority. The portion of the benefits associated with tax positions taken that exceeds the amount measured as described above should be reflected as a liability for uncertain tax benefits in the accompanying balance sheet along with any associated interest and penalties that would be payable to the taxing authorities upon examination. The Company believes its tax positions will more likely than not be upheld upon examination. As such, the Company has not recorded a liability for uncertain tax benefits.

The federal and state income tax returns of the Company are subject to examination by the Internal Revenue Service and state taxing authorities, generally for three years after they were filed. The Company is in the process of filing the tax returns for the 2022 year. After review of the prior year financial statements and the results of operations through December 31, 2022, the Company has recorded a full valuation allowance on its deferred tax asset.

Recent Accounting Pronouncements

There are no recently issued accounting pronouncements the Company has not yet adopted that will materially impact the Company's consolidated financial statements.

Subsequent Events

The Company has evaluated all transactions through the date the condensed financial statements were issued for subsequent event disclosure consideration.

NOTE 4 – CARVE-OUT CRITERIA AND ASSUMPTIONS

The carve-out statements of comprehensive income, as set forth above and which was the subject of the statement contained herein, reflect direct revenues and expenses and allocations of indirect expenses related to certain support functions that are provided on a centralized basis by Chromocell Holdings. These expenses, assets, and liabilities have been allocated to the Company on the basis of direct usage when identifiable, with others allocated based on relevant data criteria.

- Employment related expenses – allocated all Chromocell direct salaries and an allocation of headquarters salaries based on headcounts.
- General and administrative expenses and Professional fees – allocated all direct Chromocell related expenses and corporate expense have been allocated to reflect the utilization of those corporate services by the Company.
- Research and development expenses – all Research and development expenses are direct Chromocell expenses.
- Rent and related expenses and security deposits – applied a ratio based on floor space used by Chromocell.
- Long lived assets – long lived assets are owned by Chromocell Holdings Inc and under shared use by its components including the Company. Operating expenses are allocated that reflect the usage of the long-lived asset by the Company.
- Accounts payable and accrued expenses – allocated all direct Chromocell liabilities and an allocation corporate expense reflecting the utilization of those corporate services by the Company.
- PPP loan and PPP loan forgiveness – allocated to reflect the utilization of the proceeds by the Company.
- Bridge loan – the bridge loan was fully allocated to the Company. (See Note 6)

Chromocell Holdings uses a centralized approach to cash management of its operations. Any cash excess over comprehensive income earned by the Company were transferred to Chromocell Holdings through "net parent investment." Accordingly, none of the Chromocell Holdings cash and cash equivalents, have been assigned to the Company in the carve-out combined financial statements.

As these carve-out financial statements present a portion of the business of Chromocell Holdings, which does not constitute a separate legal entity for the purposes of carve-out financial statements, the net assets of the Chromocell Holdings have been presented as parent's net deficit. Except for the PPP loan, Chromocell Holdings third-party bank loans, related party loans and the related interest expense have not been included in the carve-out financial statements for any of the periods presented. Chromocell is not the legal obligor on those loans, and they were not directly attributable to the Chromocell operations.

As the lease is held by Chromocell Holdings, the Company does not have the right to control the use of the space being leased and only shares the space. As such, there is no lease liability or right of use asset recorded for Chromocell.

Management believes the assumptions underlying the carve-out combined financial statements, including the assumptions regarding allocation of expenses, are reasonable.

For the six months ended June 30, 2023, the condensed financial statements reflect Chromocell as a stand-alone entity.

NOTE 5 – RELATED PARTY TRANSACTIONS

Employment Agreement

The Company entered into an employment agreement with Christian Kopfli, dated January 10, 2023. Pursuant to such agreement, Mr. Kopfli agreed to serve as the Company's Chief Executive Officer and Vice-Chairman of its Board of Directors (the "Board") in consideration for an annualized salary of $275,000, payable in cash at the rate of $5,000 per month (a minimum of $1,125 per week), with the remainder accrued and paid as of the earliest of a sale or liquidation of the Company, the Company's bankruptcy or three days after the approval by the Board of a funded budget with appropriately established milestones subsequent to the effective date of a Form S-1 registration statement ("Post-registration Approval"). Mr. Kopfli also agreed, as of Post-registration Approval, to resign as Chief Executive Officer of Chromocell Corporation although he may continue to service on the Board of Directors of Chromocell Corporation, including as its Board Chair. The employment agreement provides that Mr. Kopfli receive an option to acquire 200,000 shares of the Company's common stock, vesting quarterly over 10 quarters and beginning October 1, 2022. This option shall have an exercise price equal to the fair market value of the Company's common stock on the date of grant and shall expire on the 10th anniversary of the date of grant. The option was awarded as of January 10, 2023. The employment agreement contemplates an annual bonus, as determined by the Board. The target bonus is 50% of Mr. Kopfli's annualized salary and will be based on achievement of performance goals and objectives agreed to by Mr. Kopfli and the Board in January of each year. The Board may increase the bonus in recognition of performance in excess of the performance objectives. Any bonus shall only be paid if Mr. Kopfli remains employed on the date of payment, which will be no later than March 15 of the year following the year to which the bonus relates. Any bonus for 2022 is payable solely at the Board's discretion.

Pursuant to Mr. Kopfli's employment agreement, in the event he is involuntarily terminated by the Company other than for "Cause" or if he resigns for "Good Reason," he is entitled to receive (i) six months of salary at the same rate existing immediately prior to his termination, (ii) his target bonus, if performance goals and objectives have been established for the year and prorated for the period of service, and (iii) six months of additional vesting credit with respect to any outstanding time-based equity awards. "Cause" and "Good Reason" are each defined in the employment agreement.

Finally, Mr. Kopfli agrees to certain non-solicitation and non-competition provisions for a period of 12 months following termination and to certain confidentiality obligations. Additional terms and conditions are set forth in the employment agreement.

On July 28, 2023, the Company amended and restated Mr. Kopfli's employment agreement whereby Mr. Kopfli's title changed to Vice Chairman and Chief Strategy Officer. Other terms and conditions of the amended and restated employment agreement remain the same.

Consulting Agreement

The Company entered into a Consultant Agreement with Camden Capital LLC, dated January 10, 2023. This consulting agreement replaces an agreement with Mr. Francis Knuettel II dated June 2, 2022, and pursuant to the agreement, Camden Capital LLC agreed to provide the services of Mr. Knuettel, who shall serve as our Chief Financial and Strategy Officer, Treasurer and Secretary.

Under the consulting agreement, Camden Capital LLC accrued a consulting fee for the period June 6, 2022 through August 31, 2022 of $10,000 per month and effective September 1, 2022, began to accrue a consulting fee of $20,000 per month, payable in cash at the rate of $5,000 per month (a minimum of $1,125 per week), with the remainder accrued. All accrued consulting fees are payable as of the earliest of a sale or liquidation of the Company, the Company's bankruptcy or three days after Post-registration Approval. The consulting agreement provides for the following equity awards to Camden Capital LLC: (i) an option, awarded as of January 10, 2023, to acquire 200,000 shares of the Company's common stock, vesting quarterly over 10 quarters and beginning October 1, 2022, with the option having an exercise price equal to the fair market value of the Company's common stock on the date of grant and expiring on the 10th anniversary of the date of grant; (ii) an option, awarded as of January 10, 2023, to acquire 25,000 shares of the Company's common stock, vesting 100% upon the sooner of the sale of the Company or Post-registration Approval, with the option having an exercise price equal to the fair market value of the Company's common stock on the date of grant and expiring on the 10th anniversary of the date of grant; and (iii) an RSU, awarded as of January 10, 2023, of 150,000 shares of the Company's common stock, vesting 100% on the day after the first trading window that opens after Post-registration Approval.

The consulting agreement contemplates an additional consulting fee, as determined by the Board. The potential additional consulting fee is 50% of the annualized consulting fee and will be based on achievement of performance goals and objectives established by the Board in concert with Mr. Knuettel in January of each year. The Board may increase the potential additional consulting fee in recognition of performance in excess of the performance objectives. Any amount shall only be paid if Camden Capital LLC continues to provide consulting services to the Company as of the date of payment, which will be no later than March 15 of the year following the year to which the additional consulting fee relates. Any additional consulting fee for 2022 is payable solely at the Board's discretion.

Pursuant to the consulting agreement, in the event the relationship with Camden Capital LLC is involuntarily terminated by the Company other than for "Cause" or if Camden Capital LLC terminates the relationship for "Good Reason," Camden Capital LLC is entitled to receive (i) six months of consulting fees at the same rate existing immediately prior to termination, (ii) a potential additional consulting fee, if performance goals and objectives have been established for the year and prorated for the period of service, and (iii) six months of additional vesting credit with respect to any outstanding time-based equity awards. "Cause" and "Good Reason" are each defined in the consulting agreement.

Finally, Camden Capital LLC and Mr. Knuettel agree to certain non-solicitation and non-competition provisions for a period of 12 months following termination of the relationship and to certain confidentiality obligations. Additional terms and conditions are set forth in the consulting agreement.

Director Note

On December 6, 2022, the Company and Mr. Todd Davis, one of the Company's directors, entered into the Director Note for $175,000. The Director Note has an original issuance discount of $75,000, and matures on December 31, 2023, or, if earlier to occur, upon the closing of an underwritten offering of securities resulting in at least $15 million in gross proceeds.

April and September Bridge Financings

On April 17, 2023 and September 1, 2023, the Company entered into bridge notes, the investors in which were almost entirely existing investors. Related party investors in the April Bridge Financing include Chromocell Holdings, Boswell Prayer Ltd., Motif Pharmaceuticals Ltd, Aperture Healthcare Ventures Ltd., MDB Merchants Park LLC, Balmoral Financial Group LLC and AME EQUITIES LLC (each a related party based on share ownership in excess of 5% or resulting from a principal at one of the entities being on the Company's board of directors). All of these investors, except Chromocell Holdings, also participated in the September Bridge Financing.

Due to Parent

As of June 30, 2023 and December 31, 2022, the Company had a $5,386 and $5,386 liability due to its parent company. This amount is comprised of expenses paid by the parent to be reimbursed by the Company. No interest is incurred on these amounts.

NOTE 6 – NOTE PAYABLE

On February 4, 2022, the Company entered into a note for $450,000 with a third party. This note has an original issuance discount of $150,000, representing an implicit interest rate of 50%, a maturity date of February 3, 2023, and accrues no interest beyond the original issuance discount. As of June 30, 2023, the debt discount was fully amortized. There was $14,370 and $22,605, respectively, in amortization of debt discount included in interest expense on the statement of operations for the six months ended June 30, 2023 and 2022.

On February 27, 2023, the note agreement was amended. The maturity date was extended from its original due date of February 3, 2023 to May 15, 2023, in return for the Company agreeing to pay 2% per month in accrued interest and the third party agreeing to settle its outstanding debt, including accrued interests in shares of common stock at the IPO. Accrued interest and related interest expense totaled $44,036 for the six months ended June 30, 2023, compared to $0 for the six months ended June 30, 2022.

On June 23, 2023, the Company entered into a side letter with the holder of the note pursuant to which the Company (i) amended and restated the note to extend the maturity date to August 15, 2023 and (ii) in consideration therefor, issued to such holder 50,000 shares of common stock. The Company determined that this extension qualified as a modification of the note rather than an extinguishment. The Company recorded an expense of $126,000 from the issuance of the 50,000 shares of common stock based on a share price of $2.52. The $2.52 share price was based on a third-party valuation of the company's common stock, with certain adjustments as set forth below in detail in Note 7 – Stockholders' Equity. This expense was recorded to interest expense on the Company statement of operations for the six months ended June 30, 2023.

On December 6, 2022, the Company and Mr. Todd Davis, one of the Company's directors, entered into a note payable agreement (the "Director Note") for $175,000. The Director Note has an original issuance discount of $75,000, no other interest and matures on December 31, 2023, or, if earlier to occur, upon the closing of an underwritten offering of securities resulting in at least $15 million in gross proceeds. Mr. Davis, as lender, has the right but not the obligation to subscribe to the underwritten offering by presenting the Director Note in whole or in part to purchase such securities as legal tender therefor, on a dollar-for-dollar basis based upon the offering price of such securities to the public. The Director Note bears no interest except in the case of certain events of default. As of June 30, 2023, there was an unamortized debt discount of $35,448. There was $34,752 in amortization of debt discount included in interest expense on the statement of operations for the six months ended June 30, 2023.

On April 17, 2023, the Company entered into a bridge loan for working capital purposes, with various accredited investors, all of whom are pre-existing stockholders, in the aggregate principal amount of $393,808 (the "April Bridge Financing"). During the three months ended March 31, 2023, the Company received $166,903 in Advances from certain participating investors. Such Advances accrued interest at a rate of 8% per annum until close of the April Bridge Financing on April 17, 2023, for a total of $1,870 in aggregate interest on all Advances. The April Bridge Financing consists of senior secured convertible notes that have a maturity date of October 17, 2023. Such notes accrue interest on the unpaid principal amount at a rate of 8% per annum and will automatically convert into shares of common stock at the initial public offering of shares of Common Stock at a 20% discount to the price per Unit. The senior secured convertible notes issued in the April Bridge Financing are secured by a security interest in all of our assets (including our patents and intellectual property licenses). In connection with the April Bridge Financing, on April 17, 2023, the Company also entered into a securities purchase agreement with holders of the notes, pursuant to which the Company is required to file a registration statement within 180 calendar days after consummation of the IPO, providing for the resale of Common Stock received by holders of the notes upon conversion of such notes.

NOTE 7 – STOCKHOLDERS' EQUITY

Share Forfeiture

Pursuant to the terms of the April Bridge Financing, Chromocell Holdings forfeited 1,203,704 of the shares of common stock of the Company on April 17, 2023. All shareholders with ownership stakes greater than 5% of the Company agreed that the failure to invest its pro rata allocation in the April Bridge Financing would result in the forfeiture of a pro rata percentage of their shares. Chromocell Holdings did not invest its full pro rata allocation, leading to the forfeiture of a portion of their shares of common stock of the Company.

Stock-Based Compensation

Options

On January 10, 2023, the Company granted options to acquire 450,000 shares of the Company's common stock to employees and consultants of the Company pursuant to their employment or consulting agreements. These options had a grant date fair value of $1,122,244. These options have an exercise price of $2.52, a term of 10 years, and vest quarterly over ten quarters, with such vesting commencing on October 1, 2022. Since the options began vesting on October 1, 2022, despite being approved by the board of directors on January 10, 2023, the Company applied guidance found in ASC 718-10-55-82 which indicate that the grant date for an award will be the date that a grantee begins to benefit from, or be adversely affected by, subsequent changes in the price of the grantor's equity shares. Since the options began vesting on October 1, 2022, the Company began recording the related expense for the options at the same time and recognized the issuance of the options as a 2022 event.

On January 10, 2023, the Company granted an option to acquire 25,000 shares of the Company's common stock to a consultant of the Company pursuant to their consulting agreements. This option had a grant date fair value of $62,336. This option has an exercise price of $2.52, a term of 10 years, and vests upon the IPO or sale of the Company.

On January 10, 2023, the Company issued a total of 800,000 options to purchase shares of the Company's common stock to several of its directors, pursuant to their serving as a director. These options had a grant date fair value of $1,994,768. These options have an exercise price of $2.52, a term of 10 years, and 600,000 of these options will vest over 2.5 years commencing on January 10, 2023, and 200,000 of the options will vest upon the Company's establishment of a second clinical program, which shall include an acquisition or entrance into a joint venture.

On March 9, 2023, the Company issued an option to acquire 135,000 shares of the Company's common stock to a director, pursuant to their serving as a director. This option had a grant date fair value of $336,606. This option has an exercise price of $2.52, a term of 10 years, and will vest over 2.25 years commencing on March 9, 2023.

On May 15, 2023, the Company issued an option to acquire 250,000 shares of the Company's common stock to a director, pursuant to their serving as a director. This option had a grant date fair value of $623,057. This option has an exercise price of $2.52, a term of 10 years, and vests upon the IPO or sale of the Company.

On May 15, 2023, the Company issued an option to acquire 218,000 shares of the Company's common stock to a director, pursuant to their serving as a director. This option had a grant date fair value of $543,306. This option has an exercise price of $2.52, a term of 10 years, and will vest over 3 years.

During the six months ended June 30, 2023, the fair value of each stock option granted was estimated using the Black-Scholes Option Pricing Model using the following inputs:

Exercise price	$ 2.52
Expected dividend yield	0%
Risk free interest rate	3.50-3.93%
Expected life in years	10
Expected volatility	157-158%

The risk-free interest rate assumption for options granted is based upon observed interest rates on the United States Government Bond Equivalent Yield appropriate for the expected term of the options.

With certain adjustments outlined below, the Company based its determination of the underlying fair value of the Company's common stock on the findings of an independent third party engaged by the Company to determine the fair value of the Company's intellectual property. The Company had the analysis conducted in conjunction with the Contribution Agreement, which was executed on August 10, 2022. The analysis determined that the fair value of the Company's intellectual property was $44.8 million. At the time of the Contribution Agreement and the option grants, there was 10,685,714 shares (on an as converted basis reflecting the conversion of the 600,000 Series A Convertible Preferred Stock held by Holdings). The resulting value per common share was $4.19. The Company then adjusted this value in accordance with the following:

Value of intellectual property	$44.8 million
Common shares outstanding (as converted)	10,685,714
Value per common share	$4.19
Illiquidity discount	20%
Minority discount	20%
Fair value of the common stock	$2.52

The Company determined the expected volatility assumption for options granted using the historical volatility of comparable public companies' common stock. The Company will continue to monitor peer companies and other relevant factors used to measure expected volatility for future option grants, until such time that the Company's common stock has enough market history to use historical volatility.

The dividend yield assumption for options granted is based on the Company's history and expectation of dividend payouts. The Company has never declared nor paid any cash dividends on its common stock, and the Company does not anticipate paying any cash dividends in the foreseeable future.

The Company recognizes option forfeitures as they occur as there is insufficient historical data to accurately determine future forfeitures rates.

The following is an analysis of the stock option grant activity:

	Number	Weighted Average Exercise Price	Weighted Average Remaining Life
Stock Options			
Outstanding December 31, 2022	450,000	$ 2.52	9.76
Granted	1,428,000	$ 2.52	9.67
Expired	-	$ -	-
Exercised	-	$ -	-
Outstanding June 30, 2023	1,878,000	$ 2.52	9.57
Exercisable June 30, 2023	312,500	2.52	9.45

A summary of the status of the Company's nonvested options as of June 30, 2023, and changes during the six months ended June 30, 2023, is presented below:

Non-vested Options	Options	Weighted-Average Exercise Price
Non-vested at December 31, 2022	410,000	$ 2.52
Granted	1,428,000	$ 2.52
Vested	(272,500)	$ 2.52
Forfeited	-	$ -
Non-vested at June 30, 2023	1,565,500	$ 2.52

The total number of options granted during the six months ended June 30, 2023 and 2022 was 1,428,000 and 0, respectively. The exercise price for these options was $2.52 per share and there was an intrinsic value of $0.

The Company recognized stock-based compensation expense related to option vesting amortization of $599,559 and $0 for the six months ended June 30, 2023 and 2022, respectively, which is included in general and administrative expenses in the statement of operations.

As of June 30, 2023, the unamortized stock option expense was $2,489,312. As of June 30, 2023, the weighted average period for the unamortized stock compensation to be recognized is 2.66 years.

On June 22, 2023, the Company and Camden Capital LLC amended and restated the Consultant Agreement by entering into an Amended and Restated Consultant Agreement, whereby the RSU for 150,000 shares of common stock was cancelled, and the Company agreed to grant Camden Capital LLC an option to acquire 250,000 shares of common stock within 30 days of the closing of the IPO. As of June 22, 2023, such RSU for 150,000 shares of common stock had not vested, and no expense was recorded on the Company's financial statements.

NOTE 8 – SUBSEQUENT EVENTS

Side Letter to the Contribution Agreement and Issuance of Series C Convertible Redeemable Preferred Stock

On August 3, 2023, the Company entered into a side letter to the Contribution Agreement with Chromocell Holdings. Pursuant to the side letter, upon closing of the IPO: (a) Chromocell Holdings will re-assume all $1.5 million in direct liabilities previously assumed by the Company in accordance with the Contribution Agreement, (b) Chromocell Holdings will waive the Company's obligations to make a cash payment in the amount of $0.6 million to Chromocell Holdings, and (c) in consideration thereof, the Company will issue to Chromocell Holdings 2,600 shares of Series C Convertible Redeemable Preferred Stock of the Company, par value of $0.0001 per share (the "Series C Preferred Stock").

The Series C Preferred Stock will have a liquidation preference of $1,000 per share. Holders of the Series C Preferred Stock will not be entitled to dividends, will have no voting rights other than as required by law, will be convertible into shares of Common Stock following the IPO at the holder's option, will convert into shares of Common Stock automatically if, following the IPO, the trading price of the Common Stock exceeds certain thresholds, and will be redeemable by the Company for cash.

Amendment to Investor Note

On August 17, 2023, the Company entered into a second side letter with the holder of the Investor Note (the "August Investor Note Side Letter" and, together with the June Investor Note Side Letter, the "Investor Note Side Letters")) pursuant to which the Company (i) amended and restated the Investor Note to extend the maturity date to September 30, 2023 and (ii) in consideration therefor, issued to such holder 30,000 shares of Common Stock (shares, after giving effect to the Reverse Stock Split). The Investor Note provides for the accrual of interest equal to 2% of the face amount of $450,000 per month ($9,000 per month) and obligates the holder to subscribe for securities in the IPO in full satisfaction of our repayment obligations. In addition, pursuant to the Investor Note Side Letters, the Company agreed to register the 80,000 shares of Common Stock (50,000 issued for the June 23, 2023 side letter, and 30,000 issued for the August 17, 2023 side letter) for resale, subject to restrictions limiting the number of shares that can be resold in any trading day to 7.5% of the trading volume on such day.

September Bridge Financing

On September 1, 2023, the Company entered into a bridge loan for working capital purposes, with various accredited investors, certain of which are pre-existing stockholders, in the aggregate principal amount of $198,128 (the "September Bridge Financing"). The September Bridge Financing consists of senior secured convertible notes that have a maturity date of March 1, 2024. Such notes accrue interest on the unpaid principal amount at a rate of eight percent (8%) per annum and will automatically convert into shares of Common Stock in connection with the IPO at a twenty percent (20%) discount to the price per IPO Share. The senior secured convertible notes issued in the September Bridge Financing are secured by a security interest in all of our assets (including our patents and intellectual property licenses). In connection with the September Bridge Financing, on September 1, 2023, the Company also entered into a securities purchase agreement with holders of the notes, pursuant to which the Company is required to file a registration statement within 180 calendar days after consummation of the IPO, providing for the resale of Common Stock received by holders of the notes upon conversion of such notes. Additionally, we entered into a subordination and intercreditor agreement, effective September 1, 2023, with the holders of the senior secured convertible notes issued in the April Bridge Financing, pursuant to which those notes and certain liens of the Company would be subordinated to the rights of the holders of the notes issued in the September Bridge Financing.

SHARES OF COMMON STOCK

CHROMOCELL THERAPEUTICS CORPORATION

PROSPECTUS

MAXIM GROUP LLC

The date of this prospectus is , 2023

Through and including , 2023 (25 days after the date of this prospectus), all dealers that effect transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to their unsold allotments or subscriptions.

[RESALE PROSPECTUS ALTERNATE FRONT COVER PAGE]

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS

SUBJECT TO COMPLETION, DATED SEPTEMBER 1, 2023

SHARES OF COMMON STOCK

This prospectus relates to the resale by the selling stockholders identified herein (the "Selling Stockholders") of an aggregate of shares of common stock, par value $0.0001 per share (the "Common Stock"), of Chromocell Therapeutics Corporation ("Chromocell," the "Company," "we," "us" or "our") issued by us prior to the consummation of this offering. We are registering on the registration statement of which this prospectus forms a part shares of common stock (the "Stockholder Shares") which are being registered for resale by the Selling Stockholders, and shares (the "IPO Shares") which are being registered in connection with the initial public offering of the Company (the "IPO").

The offering of the Stockholder Shares by the Selling Stockholders is conditioned on the closing of our IPO. The Stockholder Shares may be sold at prevailing market prices, prices related to prevailing market prices or at privately negotiated prices. We will not receive any proceeds from the sale of any of the Stockholder Shares sold by the Selling Stockholders. The offering of the Stockholder Shares by the Selling Stockholders will terminate at the earlier of such time as all of the Stockholder Shares have been sold pursuant to this registration statement and the date on which it is no longer necessary to maintain the registration of the Stockholder Shares as a result of such shares being permitted to be offered and resold without restriction pursuant to the provisions of Rule 144 of the Securities Act of 1933, as amended (the "Securities Act").

We are an emerging growth company as that term is used in the Jumpstart Our Business Startups Act of 2012 and, as such, have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings. See "Prospectus Summary — Implications of Being an Emerging Growth Company and a Smaller Reporting Company."

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" beginning on page 9 of this prospectus and under similar headings in any amendments or supplements to this prospectus. 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 , 2023

[RESALE PROSPECTUS ALTERNATE BACK COVER PAGE]

CHROMOCELL THERAPEUTICS CORPORATION

SHARES OF COMMON STOCK

The date of this prospectus is , 2023

PART II

INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the sale of our securities being registered. All amounts are estimates except for the Securities and Exchange Commission ("SEC") registration fee, the Financial Industry Regulatory Authority, Inc. ("FINRA") filing fee and the NYSE American ("NYSE") listing fee.

	Amount Paid or to be Paid
SEC registration fee	$ *
FINRA filing fee	*
NYSE listing fee	*
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Underwriter out-of-pocket accountable expenses	*
Total	$ *

* To be provided by amendment.

Item 14. Indemnification of Directors and Officers.

We are incorporated under the laws of the State of Delaware. Section 102 of the General Corporation Law of the State of Delaware permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit.

Section 145 of the DGCL provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

As permitted by the DGCL, our certificate of incorporation and bylaws to be in effect upon the closing of the IPO provide that: (i) we are required to indemnify our directors and officers to the fullest extent permitted by the DGCL; (ii) we may, in our discretion, indemnify our employees and agents as set forth in the DGCL; (iii) we are required, upon satisfaction of certain conditions, to advance all expenses incurred by our directors and officers in connection with certain legal proceedings; (iv) the rights conferred in the bylaws are not exclusive; and (v) we are authorized to enter into indemnification agreements with our directors, officers, employees and agents.

We have entered into indemnification agreements with our directors and executive officers that require us to indemnify them against expenses, judgments, fines, settlements and other amounts that any such person becomes legally obligated to pay (including with respect to a derivative action) in connection with any proceeding, whether actual or threatened, to which such person may be made a party by reason of the fact that such person is or was a director or officer of us or any of our affiliates, provided such person acted in good faith and in a manner such person reasonably believed to be in, or not opposed to, our best interests. We maintain a directors' and officers' liability insurance policy. The policy insures directors and officers against unindemnified losses arising from certain wrongful acts in their capacities as directors and officers and reimburses us for those losses for which we have lawfully indemnified the directors and officers. The policy contains various exclusions.

In addition, the underwriting agreement for the offering of shares of Common Stock to be filed as Exhibit 1.1 to this Registration Statement provides for indemnification by the underwriters of us and our officers and directors for certain liabilities arising under the Securities Act of 1933, as amended (the "Securities Act") or otherwise.

Item 15. Recent Sales of Unregistered Securities.

The share amounts presented herein do not give effect to the 1-for- Reverse Stock Split in connection with the IPO Transactions. Pursuant to that certain Contribution Agreement entered into with Chromocell Holdings, we issued to Chromocell Holdings 10,000,000 shares of Common Stock and 600,000 shares of Series A Preferred Stock.

On January 10, 2023, pursuant to the Chromocell Therapeutics Corporation 2023 Equity Incentive Plan, we granted: (a) options to purchase up to an aggregate of 1,275,000 shares of Common Stock to employees and directors and (b) 150,000 restricted stock units to employees. The RSUs were cancelled on June 23, 2023 and as they had not vested, no expense was recorded on the Company's historical financial statements.

On March 9, 2023, pursuant to the Chromocell Therapeutics Corporation 2023 Equity Incentive Plan, we granted to a director options to purchase up to an aggregate of 135,000 shares of Common Stock.

On June 23, 2023, pursuant to that certain June Investor Note Side Letter, we issued 50,000 shares of Common Stock to the Holder of the Investor Note.

On June 23, 2023, pursuant to the Chromocell Therapeutics Corporation 2023 Equity Incentive Plan, we granted to two employees options to purchase up to an aggregate of 468,000 shares of Common Stock, which include options that have not yet been granted but the Company has agreed to grant in connection with the closing of the offering of shares of Common Stock.

On August 17, 2023, pursuant to that certain August Investor Note Side Letter, we issued 30,000 shares of Common Stock to the Holder of the Investor Note.

The offers and sales of the above securities were deemed to be exempt from registration under the Securities Act in reliance upon Section 4(a)(2) of the Securities Act or Regulation D promulgated thereunder, or Rule 701 promulgated under Section 3(b) of the Securities Act, as transactions by an issuer not involving any public offering or pursuant to benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of the above securities represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

We have filed the exhibits listed on the accompanying Exhibit Index of this registration statement, which Exhibit Index is incorporated herein by reference.

(b) Financial Statement Schedules.

All other schedules have been omitted because the information required to be presented in them is not applicable or is shown in the financial statements or notes.

Item 17. Undertakings.

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

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 Securities and Exchange Commission 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 the 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.

The undersigned Registrant hereby undertakes that:

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;

   (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 the 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 SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% 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) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.

3) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus 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.

EXHIBIT INDEX

Exhibit No.	Description
1.1*	Form of Underwriting Agreement
2.1**	Contribution Agreement
2.2*	Side Letter to Contribution Agreement
3.1**	Certificate of Incorporation, as currently in effect
3.2**	Certificate of Designation of Series A Convertible Preferred Stock, as currently in effect
3.3**	Form of Amended and Restated Certificate of Incorporation to be effective upon the closing of the offering of shares of Common Stock
3.4*	Form of Certificate of Designation of Series B Convertible Preferred Stock, to be effective upon the closing of the IPO.
3.5*	Form of Certificate of Designation of Series C Convertible Preferred Stock, to be effective upon the closing of the IPO.
3.6**	Bylaws, as currently in effect
3.7**	Form of Bylaws to be effective upon the closing of the IPO
4.1**	Form of Representative's Warrant
4.2**	Form of Advisor Warrant
4.3**	Side Letter to Amended and Restated Investor Promissory Note issued by the Company
4.4*	Third Amended and Restated Investor Promissory Note Issued by the Company
4.5*	Side Letter to Second Amended and Restated Investor Promissory Note issued by the Company
4.6**	Director Promissory Note Issued by the Company
4.7**	Form of Senior Secured Convertible Promissory Note (April Bridge Financing; included in Exhibit 10.4)
4.8*	Form of Senior Secured Convertible Promissory Note (September Bridge Financing; included in Exhibit 10.6)
5.1***	Opinion of Sullivan & Worcester LLP
10.1**	Chromocell Therapeutics Corporation 2023 Equity Incentive Plan
10.2*	Amended and Restated Employment Agreement (Christian Kopfli)
10.3**	Amended and Restated Consultant Agreement (Camden Capital LLC)
10.4**	Securities Purchase Agreement (April Bridge Financing)
10.5**	Security Agreement (April Bridge Financing)
10.6*	Securities Purchase Agreement (September Bridge Financing)
10.7*	Security Agreement (September Bridge Financing)
10.8*	Subordination and Intercreditor Agreement (September Bridge Financing)
10.9*	Form of Securities Purchase Agreement (Series B Preferred Stock)
10.10*	Form of Registration Rights Agreement (Series B Preferred Stock)
10.11**	Employment Agreement (Eric Lang)
10.12*	Form of Amendment to Chromocell Therapeutics Corporation 2023 Equity Incentive Plan
23.1*	Consent of Marcum LLP, independent registered public accounting firm
23.2***	Consent of Sullivan & Worcester LLP (included in Exhibit 5.1)
24.1**	Power of Attorney (included on signature page to previously filed registration statement)
107**	Filing Fee Table

* Filed herewith.
** Previously filed.
*** To be filed by amendment.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of North Brunswick, State of New Jersey, on September 1, 2023.

CHROMOCELL THERAPEUTICS CORPORATION

By: /s/ Francis Knuettel II
Name: Francis Knuettel II
Title: Interim Chief Executive Officer and Chief Financial Officer, Treasurer and Secretary

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 and on the dates indicated below:

Signature	Title	Date
/s/ Francis Knuettel II Francis Knuettel II	Interim Chief Executive Officer and Chief Financial Officer, Treasurer and Secretary (Principal Executive Officer, Principal Financial Officer and Principal Accounting Officer)	September 1, 2023
* Christian Kopfli	Director	September 1, 2023
* Ezra Friedberg	Director	September 1, 2023
* Todd Davis	Director	September 1, 2023
* Richard Malamut	Director	September 1, 2023
* Chia-Lin Simmons	Director	September 1, 2023

*By: /s/ Francis Knuettel II
Francis Knuettel II
Attorney-in-Fact

Exhibit 1.1

CHROMOCELL THERAPEUTICS CORPORATION

UNDERWRITING AGREEMENT

[ ], 2023

Maxim Group LLC
405 Lexington Avenue
New York, New York 10174

As Representative of the Underwriters
named on Schedule A hereto

Ladies and Gentlemen:

Chromocell Therapeutics Corporation, a Delaware corporation (the "Company"), proposes, subject to the terms and conditions stated herein, to issue and sell an aggregate of [ ] shares (the "Shares") of the Company's common stock, $0.0001 par value per share (the "Common Stock") to the several underwriters (such underwriters, for whom Maxim Group LLC ("Maxim" or the "Representative") is acting as representative, the "Underwriters" and each an "Underwriter"). Such Shares are hereinafter collectively called the "Firm Shares." The Company has also agreed to grant to the Representative on behalf of the Underwriters an option (the "Option") to purchase up to an additional [ ] shares of Common Stock (the "Option Shares") on the terms set forth in Section 1(b) hereof. The Shares included in the Firm Shares and the Option Shares are hereinafter collectively called the "Public Securities." The Public Securities and the Representative's Warrant Shares (as defined below) are collectively referred to as the "Registered Securities."

The Company confirms as follows its agreement with each of the Underwriters:

1. Agreement to Sell and Purchase.

(a) *Purchase of Firm Shares.* On the basis of the representations, warranties and agreements of the Company contained herein and subject to all the terms and conditions of this Agreement, the Company agrees to sell to the Underwriters, severally and not jointly, and the Underwriters, severally and not jointly, agree to purchase from the Company, the number of Firm Shares set forth opposite the name of such Underwriter on Schedule A, at a purchase price (the "Purchase Price") (prior to discount and commissions) of $[ ] per Share (or $[ ] per Share net of discount and commissions); provided, however, that no discount or commission will be payable by the Company in respect of Firm Shares issued in satisfaction of the Director Note and/or Investor Note (each as defined in the Registration Statement).

(b) *Purchase of Option Shares.* Subject to all the terms and conditions of this Agreement, the Company grants to the Representative on behalf of the Underwriters the Option to purchase, severally and not jointly, all or less than all of the Option Shares. The purchase price (net of discount and commissions) to be paid for each Option Share will be the same Purchase Price (net of discount and commissions) allocated to each Share. The Option may be exercised in whole or in part at any time and from time to time on or before the 45th day after the date of this Agreement, upon written notice (the "Option Notice") by the Representative to the Company no later than 12:00 noon, New York City time, at least one and no more than five business days before the date specified for closing in the Option Notice (the "Option Closing Date") setting forth the aggregate number of Option Shares to be purchased and the time and date for such purchase. Upon exercise of the Option, the Company will become obligated to convey to the Underwriters, and, subject to the terms and conditions set forth herein, the Underwriters will become obligated to purchase, the number of Option Shares specified in the Option Notice. If any Option Shares are to be purchased, each Underwriter agrees, severally and not jointly, to purchase the number of Option Shares that bears the same proportion to the number of Firm Shares to be purchased by it as set forth on Schedule A opposite such Underwriter's name as the total number of Option Shares to be purchased bears to the total number of Firm Shares.

(c) *Representative's Warrants*. The Company hereby agrees to issue to the Representative (and/or its designees) on the Closing Date (as defined below) and each Option Closing Date, as the case may be, warrants to purchase an aggregate of eight percent (5%) of the shares of Common Stock issued at such closing (the "Representative's Warrants"), substantially in the form filed as an exhibit to the Registration Statement. The Representative's Warrants shall be exercisable, in whole or in part, commencing six months after the effective date of the Registration Statement (the "Effective Date") and expiring on the five-year anniversary of the date on which the Representative's Warrants first become exercisable, at an initial exercise price of $[ ] per share, which is equal to one hundred percent (100%) of the initial public offering price of the Shares issued at such closing. The shares of Common Stock issuable upon exercise of the Representative's Warrants are hereinafter referred to as the "Representative's Warrant Shares."

2. Delivery and Payment.

(a) *Closing.* Delivery of the Firm Shares shall be made to the Representative through the facilities of the Depository Trust Company ("DTC") for the respective accounts of the Underwriters against payment of the Purchase Price by wire transfer of immediately available funds to the order of the Company. Such payment shall be made at 10:00 a.m., New York City time, on the second business day (the third business day, should the offering of Public Securities be priced after 4:00 p.m., New York City Time) after the date of this Agreement or at such time on such other date, not later than ten business days after such date, as may be agreed upon by the Company and the Representative (such date is hereinafter referred to as the "Closing Date").

(b) *Option Closing.* To the extent the Option is exercised, delivery of the Option Shares against payment by the Underwriters (in the manner and at the location specified above) shall take place at the time and date (which may be the Closing Date, but not earlier than the Closing Date) specified in the Option Notice.

(c) *Electronic Transfer.* Electronic transfer of the Public Securities shall be made at the time of purchase in such names and in such denominations as the Representative shall specify.

(d) *Tax Stamps.* The cost of original issue tax stamps, if any, in connection with the issuance and delivery of the Public Securities by the Company to the Underwriters shall be borne by the Company. The Company shall pay and hold each Underwriter and any subsequent holder of the Public Securities harmless from any and all liabilities with respect to or resulting from any failure or delay in paying United States federal and state and foreign stamp and other transfer taxes, if any, which may be payable or determined to be payable in connection with the original issuance, sale and delivery to such Underwriter of the Public Securities.

3. Representations and Warranties of the Company. The Company represents and warrants to, and covenants with, each of the Underwriters as follows:

(a) *Compliance with Registration Requirements.* A registration statement on Form S-1 (Registration No. 333-269188) relating to the Registered Securities, including a preliminary prospectus and such amendments to such registration statement as may have been required prior to the date of this Agreement, has been prepared by the Company under the provisions of the Securities Act of 1933, as amended (the "Act"), and the rules and regulations (collectively referred to as the "Rules and Regulations") of the Securities and Exchange Commission (the "Commission") thereunder, and has been filed with the Commission. Copies of such registration statement and of each amendment thereto, if any, including the related preliminary prospectuses, heretofore filed by the Company with the Commission relating to the offering of Registered Securities have been delivered to the Underwriters. The term "Registration Statement" means such registration statement on Form S-1 as amended at the time it becomes or became effective, including financial statements, all exhibits and any information deemed to be included or incorporated by reference therein, including any information deemed to be included pursuant to Rule 430A or Rule 430B of the Rules and Regulations, as applicable. If the Company files a registration statement to register a portion of the Registered Securities and relies on Rule 462(b) of the Rules and Regulations for such registration statement to become effective upon filing with the Commission (the "Rule 462 Registration Statement"), then any reference to the "Registration Statement" shall be deemed to include the Rule 462 Registration Statement, as amended from time to time. The term "preliminary prospectus" as used herein means a preliminary prospectus relating to the offering of Registered Securities as contemplated by Rule 430 or Rule 430A of the Rules and Regulations included at any time as part of, or deemed to be part of or included in, the Registration Statement. The term "Prospectus" means the final prospectus relating to the offering of the Registered Securities as first filed with the Commission pursuant to Rule 424(b) of the Rules and Regulations or, if no such filing is required, the form of final prospectus relating to the offering of Registered Securities included in the Registration Statement at the effective date, except that if any revised prospectus or prospectus supplement shall be provided to the Representative by the Company for use in connection with the Registered Securities which differs from the Prospectus (whether or not such revised prospectus or prospectus supplement is required to be filed by the Company pursuant to Rule 424(b)), the term "Prospectus" shall also refer to such revised prospectus or prospectus supplement, as the case may be, from and after the time it is first provided to the Representative for such use. Any reference herein to the terms "amend", "amendment" or "supplement" with respect to the Registration Statement, any preliminary prospectus or the Prospectus shall be deemed to refer to and include: (i) the filing of any document under the Securities Exchange Act of 1934, as amended, and together with the rules and regulations promulgated thereunder (collectively, the "Exchange Act") after the effective date of the Registration Statement, the date of such preliminary prospectus or the date of the Prospectus, as the case may be, which is incorporated therein by reference, and (ii) any such document so filed.

(b) *Effectiveness of Registration.* The Registration Statement, any Rule 462 Registration Statement and any post-effective amendment thereto have been declared effective by the Commission under the Act or have become effective pursuant to Rule 462 of the Rules and Regulations. The Company has responded to all requests, if any, of the Commission for additional or supplemental information. No stop order suspending the effectiveness of the Registration Statement or any Rule 462 Registration Statement is in effect and no proceedings for such purpose have been instituted or are pending or, to the knowledge of the Company, are threatened by the Commission.

(c) *Accuracy of Registration Statement.* Each of the Registration Statement, any Rule 462 Registration Statement and any post-effective amendment thereto, at the time it became effective, when any document filed under the Exchange Act was or is filed and at all subsequent times, complied and will comply in all material respects with the Act and the Rules and Regulations, and did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein not misleading. The Prospectus, as amended or supplemented, as of its date and at all subsequent times when a prospectus is delivered or required (or, but for the provisions of Rule 172, would be required) by applicable law to be delivered in connection with sales of Registered Securities, complied and will comply in all material respects with the Act, the Exchange Act and the Rules and Regulations, and did not or will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein not misleading, in the light of the circumstances under which they were made. Each preliminary prospectus (including the preliminary prospectus or prospectuses filed as part of the Registration Statement or any amendment thereto) complied when so filed in all material respects with the Act and the Rules and Regulations, and each preliminary prospectus and the Prospectus delivered to the Representative for use in connection with the offering of the Registered Securities is identical to the electronically transmitted copies thereof filed with the Commission on EDGAR, except to the extent permitted by Regulation S-T or otherwise necessary for purposes of eliminating disclosures contained in the preliminary prospectus specific to registration of the resale of the Stockholder Shares (as defined in the Registration Statement). The foregoing representations and warranties in this Section 3(c) do not apply to any statements or omissions made in reliance on and in conformity with information relating to the Underwriters furnished in writing to the Company by the Underwriters through the Representative specifically for inclusion in the Registration Statement or Prospectus or any amendment or supplement thereto. For all purposes of this Agreement, the information set forth in the Prospectus (i) under the caption "Underwriting" setting forth the amount of the selling concession, and (ii) under the caption "Underwriting - Stabilization" regarding stabilization, short positions and penalty bids, constitutes the only information (the "Underwriters' Information") relating to the Underwriters furnished in writing to the Company by the Underwriters through the Representative specifically for inclusion in the preliminary prospectus, the Registration Statement or the Prospectus.

(d) *Company Not Ineligible Issuer*. (i) At the time of filing the Registration Statement and (ii) as of the date of the execution and delivery of this Agreement (with such date being used as the determination date for purposes of this clause (ii)), the Company was not and is not an "ineligible issuer" (as defined in Rule 405 of the Rules and Regulations).

(e) *Disclosure at the Time of Sale.* As of the Applicable Time (as defined below), neither (i) the Issuer General Use Free Writing Prospectus(es) (as defined below) issued at or prior to the Applicable Time, the most recent preliminary prospectus related to the offering of the Registered Securities, and the information included on Schedule II hereto, all considered together (collectively, the "General Disclosure Package"), nor (ii) any individual Issuer Limited Use Free Writing Prospectus (as defined below), when considered together with the General Disclosure Package, included any untrue statement of a material fact or omitted to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The preceding sentence does not apply to statements in or omissions from the General Disclosure Package based upon and in conformity with written information furnished to the Company by the Underwriters through the Representative specifically for use therein, it being understood and agreed that the only such information furnished by the Underwriters consists of the Underwriters' Information.

As used in this subsection and elsewhere in this Agreement:

"Applicable Time" means 5:00 p.m. (New York City Time) on [ ], 2023 or such other time as agreed by the Company and the Representative.

"Issuer Free Writing Prospectus" means any "issuer free writing prospectus," as defined in Rule 433 of the Rules and Regulations, relating to the Public Securities that (i) is required to be filed with the Commission by the Company, (ii) is "a written communication that is a road show" within the meaning of Rule 433(d)(8)(i), whether or not required to be filed with the Commission or (iii) is exempt from filing pursuant to Rule 433(d)(5)(i) because it contains a description of the Public Securities or of the offering of the Public Securities that does not reflect the final terms, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company's records pursuant to Rule 433(g).

"Issuer General Use Free Writing Prospectus" means any Issuer Free Writing Prospectus that is intended for general distribution to prospective investors, as evidenced by its being specified in Schedule I hereto.

"Issuer Limited Use Free Writing Prospectus" means any Issuer Free Writing Prospectus that is not an Issuer General Use Free Writing Prospectus.

(f) *Issuer Free Writing Prospectuses.* Each Issuer Free Writing Prospectus, as of its issue date and at all subsequent times through the Prospectus Delivery Period (as defined below), does not include any information that conflicts with the information contained in the Registration Statement. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus based upon and in conformity with the Underwriters' Information. If at any time following the issuance of an Issuer Free Writing Prospectus there occurred an event or development as a result of which such Issuer Free Writing Prospectus conflicted with the information contained in the Registration Statement relating to the Registered Securities or included an untrue statement of material fact or omitted to state a material fact necessary in order to make the statements therein, in light of the circumstances prevailing at that subsequent time, not misleading, the Company has promptly notified the Representative and has promptly amended or supplemented, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(g) *Distribution of Offering Material by the Company.* The Company has not distributed and will not distribute, prior to the later of the Closing Date, any Option Closing Date and the completion of the Underwriters' distribution of the Public Securities, any offering material in connection with the offering or sale of the Public Securities, the Registration Statement, the preliminary prospectus, the Permitted Free Writing Prospectuses reviewed and consented to by the Representative and included in Schedule I hereto, and the Prospectus. None of the Marketing Materials, as of their respective issue dates and at all subsequent times through the Prospectus Delivery Period (as defined below), include any information that conflicts with the information contained in the Registration Statement. If at any time following the issuance of any Marketing Material there occurred an event or development as a result of which such Marketing Material conflicted with the information contained in the Registration Statement relating to the Public Securities or included an untrue statement of material fact or omitted to state a material fact necessary in order to make the statements therein, in light of the circumstances prevailing at that subsequent time, not misleading, the Company has promptly notified the Representative and has promptly amended or supplemented, at its own expense, such Marketing Material to eliminate or correct such conflict, untrue statement or omission.

(h) [Reserved].

(i) *Organization and Qualification.* The Company is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. The Company is not in violation nor default of any of the provisions of its certificate or articles of incorporation, bylaws or other organizational or charter documents. The Company is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, would not have or reasonably be expected to result in: (i) a material adverse effect on the legality, validity or enforceability of this Agreement, the Representative's Warrants, or any other agreement, document, certificate or instrument required to be delivered pursuant to this Agreement (collectively, the "Transaction Documents"), (ii) a material adverse effect on the results of operations, assets, business, prospects or condition (financial or otherwise) of the Company, or (iii) a material adverse effect on the Company's ability to perform in any material respect on a timely basis its obligations under any Transaction Document (any of (i), (ii) or (iii), a "Material Adverse Effect") and no action, claim, suit or proceeding (including, without limitation, a partial proceeding, such as a deposition), whether commenced or threatened (each, a "Proceeding") has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

(j) *Authorization; Enforcement.* The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement and each of the other Transaction Documents and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of this Agreement and each of the other Transaction Documents by the Company and the consummation by it of the transactions contemplated hereby and thereby have been duly authorized by all necessary action on the part of the Company and no further action is required by the Company, the Board of Directors or the Company's stockholders in connection herewith or therewith other than in connection with the Required Approvals (as hereinafter defined in Section 3(l)). This Agreement and each other Transaction Document to which it is a party has been (or upon delivery will have been) duly executed by the Company and, when delivered in accordance with the terms hereof and thereof, assuming due authorization, execution and delivery by the other respective parties thereto, will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

(k) *No Conflicts*. The execution, delivery and performance by the Company of this Agreement and the other Transaction Documents to which it is a party, the issuance and sale of the Registered Securities and the consummation by it of the transactions contemplated hereby and thereby do not and will not (i) conflict with or violate any provision of the Company's certificate or articles of incorporation, bylaws or other organizational or charter documents, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any lien, charge, pledge, security interest, encumbrance, right of first refusal, preemptive right or other similar restriction (each, a "Lien") upon any of the properties or assets of the Company, or give to others any rights of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument (evidencing a Company debt or otherwise) or other understanding to which the Company is a party or by which any property or asset of the Company is bound or affected, or (iii) subject to the Required Approvals, conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company is subject (including federal and state securities laws and regulations), or by which any property or asset of the Company is bound or affected; except in the case of each of clauses (ii) and (iii), such as would not reasonably be expected to result in a Material Adverse Effect.

(l) *Filings, Consents and Approvals*. The Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other Person (as defined below) in connection with the execution, delivery and performance by the Company of the Transaction Documents, other than: (i) the filing with the Commission of the Registration Statement and the Prospectus, (ii) application(s) to the NYSE American LLC ("NYSE American") for the listing of the Shares for trading thereon in the time and manner required thereby, (iii) such filings, if any, as are required to be made under applicable state securities laws, (iv) such notices, filings or authorizations as are required to be obtained or made under applicable rules of the Financial Industry Regulatory Authority, Inc. ("FINRA") and NYSE American, and (v) such notices, filings or authorizations as have been obtained, given or made as of the date hereof (collectively, the "Required Approvals").

(m) [Reserved.]

(n) *Authorization of the Shares, Option Shares and Representative's Warrant Shares*. The Shares and Option Shares to be sold by the Company through the Underwriters have been duly and validly authorized by all required corporate action and the Shares, the Option Shares (if applicable) and the Representative's Warrant Shares have been reserved for issuance and sale pursuant to this Agreement and, when so issued and delivered by the Company, will be validly issued, fully paid and non-assessable, free and clear of all liens, encumbrances, or claims ("Liens") imposed by the Company. The Representative's Warrant Shares are duly authorized and, when issued and paid for in accordance with the terms of the Representative's Warrants, will be duly and validly issued, fully paid and non-assessable, free and clear of all Liens imposed by the Company. The Company has a sufficient number of authorized shares of Common Stock for the issuance of the maximum number of Firm Shares, Option Shares and Representative's Warrant Shares issuable in connection with the offering of the Public Securities and pursuant to the exercise of the Representative's Warrants, respectively.

(o) *Capitalization.* The capitalization of the Company as of the date hereof is as set forth in the Registration Statement, the General Disclosure Package and the Prospectus. Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, the Company has not issued any capital stock, other than pursuant to the Company's equity incentive plans, the issuance of shares of Common Stock to employees, directors or consultants pursuant to the Company's equity incentive plans and pursuant to the conversion and/or exercise of any securities of the Company which would entitle the holder thereof to acquire at any time shares of Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, shares of Common Stock ("Common Stock Equivalents") and is disclosed in the Registration Statement, the General Disclosure Package and the Prospectus. Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, no individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind (each, a "Person") has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents. Except as a result of the purchase and sale of the Registered Securities and Representative's Warrants or as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, there are no outstanding options, warrants, scrip rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire, any shares of Common Stock, or contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to issue additional shares of Common Stock or Common Stock Equivalents. Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, the issuance and sale of the Public Securities will not obligate the Company to issue shares of Common Stock or other securities to any Person (other than the Underwriters) and will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange or reset price under any of such securities. There are no securities of the Company that have any anti-dilution or similar adjustment rights (other than adjustments for stock splits, recapitalizations, and the like) to the exercise or conversion price, have any exchange rights, or reset rights. Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, there are no outstanding securities or instruments of the Company that contain any redemption or similar provisions, and there are no contracts, commitments, understandings or arrangements by which the Company is or may become bound to redeem a security of the Company. The Company does not have any stock appreciation rights or "phantom stock" plans or agreements or any similar plan or agreement. All of the outstanding shares of capital stock of the Company are duly authorized, validly issued, fully paid and nonassessable, have been issued in compliance in all material respects with all federal and state securities laws, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. There are no stockholders agreements, voting agreements or other similar agreements with respect to the Company's capital stock to which the Company is a party or, to the knowledge of the Company, between or among any of the Company's stockholders.

(p) *Financial Statements*. The financial statements of the Company included in the Registration Statement, the General Disclosure Package and the Prospectus comply in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved ("GAAP"), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments. The agreements and documents described in the Registration Statement, the General Disclosure Package and the Prospectus conform in all material respects to the descriptions thereof contained therein and there are no material agreements or other documents required by the Act and the rules and regulations thereunder to be described in the Registration Statement, the General Disclosure Package and the Prospectus or to be filed with the Commission as exhibits to the Registration Statement, that have not been so described or filed. Each agreement or other instrument (however characterized or described) to which the Company is a party or by which it is or may be bound or affected and (i) that is referred to in the Registration Statement, the General Disclosure Package and the Prospectus, or (ii) is material to the Company's business, has been duly authorized and validly executed by the Company, is in full force and effect in all material respects and is enforceable against the Company and, to the Company's knowledge, the other parties thereto, in accordance with its terms, except (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally, (y) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefore may be brought. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, none of such agreements or instruments has been assigned by the Company, and neither the Company nor, to the best of the Company's knowledge, any other party is in default thereunder and, to the best of the Company's knowledge, no event has occurred that, with the lapse of time or the giving of notice, or both, would constitute a default thereunder. To the best of the Company's knowledge, performance by the Company of the material provisions of such agreements or instruments will not result in a violation of any existing applicable law, rule, regulation, judgment, order or decree of any governmental agency or court, domestic or foreign, having jurisdiction over the Company or any of its assets or businesses, including, without limitation, those relating to environmental laws and regulations.

(q) *Material Changes; Undisclosed Events, Liabilities or Developments.* Since the date of the latest audited financial statements included within the Registration Statement, the General Disclosure Package and the Prospectus, (i) there has been no event, occurrence or development that has had or that would reasonably be expected to result in a Material Adverse Effect, (ii) the Company has not incurred any material liabilities (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required to be reflected in the Company's financial statements pursuant to GAAP or disclosed in filings made with the Commission, (iii) the Company has not altered its method of accounting, (iv) the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock and (v) the Company has not issued any equity securities to any officer, director or Affiliate (as defined below), except pursuant to existing Company equity incentive plans or as set forth in the Registration Statement, the General Disclosure Package and the Prospectus. The Company does not have pending before the Commission any request for confidential treatment of information. Except for the issuance of the Registered Securities and Representative's Warrants contemplated by this Agreement, no event, liability, fact, circumstance, occurrence or development has occurred or exists or is reasonably expected to occur or exist with respect to the Company or its respective business, prospects, properties, operations, assets or financial condition that would be required to be disclosed by the Company under applicable securities laws at the time this representation is made or deemed made that has not been publicly disclosed at least one Trading Day prior to the date that this representation is made.

(r) *Litigation*. There is no action, suit, inquiry, notice of violation or proceeding pending or, to the knowledge of the Company, threatened against or affecting the Company, or any of its properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an "Action") which (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents or the Public Securities or (ii) would, if there were an unfavorable decision, have or reasonably be expected to result in a Material Adverse Effect. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, neither the Company nor any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company under the Act.

(s) *Labor Relations*. No labor dispute exists or, to the knowledge of the Company, is imminent with respect to any of the employees of the Company, which would reasonably be expected to result in a Material Adverse Effect. None of the Company's employees is a member of a union that relates to such employee's relationship with the Company, and the Company is not a party to a collective bargaining agreement, and the Company believes that its relationships with its employees are good. To the knowledge of the Company, no executive officer of the Company, is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement or non-competition agreement, or any other contract or agreement or any restrictive covenant in favor of any third party, and the continued employment of each such executive officer does not subject the Company to any liability with respect to any of the foregoing matters. The Company is in compliance with all U.S. federal, state, local and foreign laws and regulations relating to employment and employment practices, terms and conditions of employment and wages and hours, except where the failure to be in compliance would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(t) *Compliance*. Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, the Company: (i) is not in default under or in violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company), the Company has not received notice of a claim that it is in default under or that it is in violation of, any indenture, loan or credit agreement or any other agreement or instrument to which it is a party or by which it or any of its properties is bound (whether or not such default or violation has been waived), (ii) is not in violation of any judgment, decree or order of any court, arbitrator or other governmental authority or (iii) is or has not been in violation of any statute, rule, ordinance or regulation of any governmental authority, including, without limitation, all foreign, federal, state and local laws relating to taxes, environmental protection, occupational health and safety, product quality and safety and employment and labor matters, except in each case as would not reasonably be expected to result in a Material Adverse Effect.

(u) *Environmental Laws.* The Company (i) is in compliance in all material respects with all federal, state, local and foreign laws relating to pollution or protection of human health or the environment (including ambient air, surface water, groundwater, land surface or subsurface strata), including laws relating to emissions, discharges, releases or threatened releases of chemicals, pollutants, contaminants, or toxic or hazardous substances or wastes (collectively, "Hazardous Materials") into the environment, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials, as well as all authorizations, codes, decrees, demands, or demand letters, injunctions, judgments, licenses, notices or notice letters, orders, permits, plans or regulations, issued, entered, promulgated or approved thereunder ("Environmental Laws"); (ii) has received all permits licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses; and (iii) is in compliance with all terms and conditions of any such permit, license or approval where in each clause (i), (ii) and (iii), the failure to so comply or obtain would reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(v) *Regulatory Permits*. The Company possesses all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct its business as described in the Registration Statement, the General Disclosure Package and the Prospectus, except where the failure to possess such permits would not reasonably be expected to result in a Material Adverse Effect ("Material Permits"), and the Company has not received any written notice of proceedings relating to the revocation or modification of any Material Permit.

(w) *Title to Assets*. The Company has good and marketable title to all real property owned by them, if any, and good and marketable title in all personal property owned by them, in each case, that is material to the business of the Company, and in such case free and clear of all Liens, except for Liens that (i) are described in the Registration Statement, the General Disclosure Package and the Prospectus, (ii) would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, (iii) do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company, or (iv) are for the payment of federal, state or other taxes, for which appropriate reserves have been made therefor in accordance with GAAP and, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company are held by it under valid, subsisting and enforceable leases with which the Company is in compliance in all material respects.

(x) *Intellectual Property*. To the knowledge of the Company, the Company has, or has rights to use, all patents, patent applications, trademarks, trademark applications, service marks, trade names, trade secrets, inventions, copyrights, licenses and other intellectual property rights and similar rights necessary or required for use in connection with their respective businesses as described in the Registration Statement, the General Disclosure Package and the Prospectus and which the failure to so have would reasonably be expected to result in a Material Adverse Effect (collectively, the "Intellectual Property Rights"). The Company has not received a notice (written or otherwise) that any of, the Intellectual Property Rights has expired, terminated or been abandoned, or is expected to expire or be abandoned, within two (2) years from the date of this Agreement, except where such action would not reasonably be expected to have a Material Adverse Effect. The Company has not received, since the date of the latest audited financial statements included within the Registration Statement, the General Disclosure Package and the Prospectus, a written notice of a claim or otherwise has any knowledge that the Intellectual Property Rights violate or infringe upon the rights of any Person, except as would not reasonably be expected to result in a Material Adverse Effect. To the knowledge of the Company, all such Intellectual Property Rights are enforceable and there is no existing infringement by another Person of any of the Intellectual Property Rights. The Company has taken reasonable security measures to protect the secrecy, confidentiality and value of all of their intellectual properties, except where failure to do so would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. The Company has no knowledge that it lacks or will be unable to obtain any rights or licenses to use all Intellectual Property Rights that are necessary to conduct its business.

(y) *Insurance*. The Company is insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary in the business in which the Company is engaged, including, but not limited to, directors and officers insurance coverage, in such amounts and covering such risks which the Company believes is adequate as is customary for companies engaged in similar business, and to the Company's knowledge, all such insurance is in full force and effect. The Company does not have any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business without a significant increase in cost.

(z) *Transactions With Affiliates and Employees* . Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, none of the officers or directors of the Company and, to the knowledge of the Company, none of the employees of the Company is presently a party to any transaction with the Company (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, providing for the borrowing of money from or lending of money to or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of the Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee, stockholder, member or partner, in each case in excess of $120,000 other than for (i) payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company and (iii) other employee benefits, including stock option agreements under any stock option plan of the Company.

(aa) *Sarbanes-Oxley; Internal Accounting Controls.* The Company is in compliance with any and all applicable requirements of the Sarbanes-Oxley Act of 2002 that are effective and applicable to the Company as of the date hereof, and any and all applicable rules and regulations promulgated by the Commission thereunder that are effective as of the date hereof and as of the Closing Date or the Option Closing Date, as applicable. Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, the Company maintains a system of internal accounting controls sufficient to provide reasonable assurance that: (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management's general or specific authorization, and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company has established disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the Company and designed such disclosure controls and procedures to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms.

(bb) *Certain Fees; FINRA Affiliation*. Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, no brokerage or finder's fees or commissions are or will be payable by the Company to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. To the Company's knowledge, there are no other arrangements, agreements or understandings of the Company or, to the Company's knowledge, any of its stockholders that may affect the Underwriters' compensation, as determined by FINRA. The Company has not made any direct or indirect payments (in cash, securities or otherwise) to (i) any person, as a finder's fee, investing fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who provided capital to the Company, (ii) any FINRA member, or (iii) any person or entity that has any direct or indirect affiliation or association with any FINRA member within the 12-month period prior to the date on which the Registration Statement was filed with the Commission (the "Filing Date") or thereafter. To the Company's knowledge, no (i) officer or director of the Company, (ii) owner of 5% or more of the Company's unregistered securities or (iii) owner of any amount of the Company's unregistered securities acquired within the 180-day period prior to the Filing Date, has any direct or indirect affiliation or association with any FINRA member. The Company will advise the Underwriters and their respective counsel if it becomes aware that any officer, director or stockholder of the Company is or becomes an affiliate or associated person of a FINRA member participating in the offering of the Registered Securities.

(cc) *Investment Company*. The Company is not, and immediately after receipt of payment for the Public Securities, will not be, an "investment company" within the meaning of the Investment Company Act of 1940, as amended.

(dd) *Registration Rights.* Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, no Person has any right to cause the Company to effect the registration under the Act of any securities of the Company.

(ee) *Listing and Maintenance Requirements.* The Shares are registered pursuant to Section 12(b) or 12(g) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Shares under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such registration. The Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements of NYSE American. The Shares are currently eligible for electronic transfer through the Depository Trust Company or another established clearing corporation and the Company is current in payment of the fees to the Depository Trust Company (or such other established clearing corporation) in connection with such electronic transfer. The issuance and sale of the Registered Securities hereunder does not contravene the rules and regulations of NYSE American.

(ff) [Reserved.]

(gg) [Reserved].

(hh) *Solvency*. Based on the consolidated financial condition of the Company as of the Closing Date and as of the Option Closing Date, after giving effect to the receipt by the Company of the proceeds from the sale of the Public Securities hereunder, the current cash flow of the Company, together with the proceeds the Company would receive, were it to liquidate all of its assets, after taking into account all anticipated uses of the cash, may be insufficient to pay all amounts on or in respect of its liabilities when such amounts are required to be paid. The Company does not intend to incur further debts beyond its ability to pay such debts as they mature (taking into account the timing and amounts of cash to be payable on or in respect of its debt). Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, the Company has no knowledge of any facts or circumstances which lead it to believe that it will file for reorganization or liquidation under the bankruptcy or reorganization laws of any jurisdiction within one year from the Closing Date or the Option Closing Date, as applicable. The Registration Statement, the General Disclosure Package and the Prospectus sets forth as of the date hereof all outstanding secured and unsecured Indebtedness of the Company, or for which the Company has commitments. For the purposes of this Agreement, "Indebtedness" means (x) any liabilities for borrowed money or amounts owed in excess of $50,000 (other than trade accounts payable incurred in the ordinary course of business), (y) all guaranties, endorsements and other contingent obligations in respect of indebtedness of others, whether or not the same are or should be reflected in the Company's consolidated balance sheet (or the notes thereto), except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (z) the present value of any lease payments in excess of $50,000 due under leases required to be capitalized in accordance with GAAP. Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, the Company is not in default with respect to any Indebtedness.

(ii) *Tax Status*. Except for matters that would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect, the Company (i) has made or filed all United States federal, state and local income and all foreign income and franchise tax returns, reports and declarations required by any jurisdiction to which it is subject, (ii) has paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations and (iii) has set aside on its books provision reasonably adequate for the payment of all material taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company know of no basis for any such claim.

(jj) *Foreign Corrupt Practices*. Neither the Company, nor to the knowledge of the Company, any agent or other person acting on behalf of the Company, has (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company (or made by any person acting on its behalf of which the Company is aware) which is in violation of law, or (iv) violated in any material respect any provision of Foreign Corrupt Practices Act of 1977, as amended.

(kk) *Accountants*. The Company's accounting firm is Marcum LLP (the "Accountants"). To the knowledge and belief of the Company, such accounting firm is a registered public accounting firm as required by the Exchange Act.

(ll) *Regulation M Compliance*. The Company has not, and to its knowledge no one acting on its behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Public Securities, (ii) sold, bid for, purchased, or, paid any compensation for soliciting purchases of, any of the Public Securities, or (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company, other than, in the case of clauses (ii) and (iii), compensation paid to the Underwriters in connection with the offering of the Public Securities.

(mm) [Reserved.]

(nn) *Office of Foreign Assets Control.* Neither the Company nor, to the Company's knowledge, any director, officer, agent or employee of the Company or any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with the Company (as such terms are used in and construed under Rule 405 under the Act) (each, an "Affiliate") is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC").

(oo) *U.S. Real Property Holding Corporation.* The Company is not and has never been a U.S. real property holding corporation within the meaning of Section 897 of the Internal Revenue Code of 1986, as amended, and the Company shall so certify upon the Representative's request.

(pp) *Bank Holding Company Act*. Neither the Company nor any of its controlled Affiliates is subject to the Bank Holding Company Act of 1956, as amended (the "BHCA"), and to regulation by the Board of Governors of the Federal Reserve System (the "Federal Reserve"). Neither the Company nor any of its controlled Affiliates owns or controls, directly or indirectly, five percent (5%) or more of the outstanding shares of any class of voting securities or twenty-five percent (25%) or more of the total equity of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve. Neither the Company nor any of its controlled Affiliates exercises a controlling influence over the management or policies of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve.

(qq) *Money Laundering*. The operations of the Company are and have been conducted at all times in compliance with applicable financial record-keeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, applicable money laundering statutes and applicable rules and regulations thereunder (collectively, the "Money Laundering Laws"), and no Action or Proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(rr) *Share Option Plans*. Each share option granted by the Company under the Company's share option plans was granted (i) in accordance with the terms of the Company's share option plans and (ii) with an exercise price at least equal to the fair market value of the Shares on the date such share option would be considered granted under GAAP and applicable law. No share option granted under the Company's share option plan has been backdated. The Company has not knowingly granted, and there is no and has been no Company policy or practice to knowingly grant, share options prior to, or otherwise knowingly coordinate the grant of share options with, the release or other public announcement of material information regarding the Company or its financial results or prospects.

(ss) *Officer's Certificates*. Any certificate signed by any officer of the Company delivered to the Representative or its counsel shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby.

4. Agreements of the Company. The Company agrees with the Underwriters as follows:

(a) *Amendments and Supplements to Registration Statement.* The Company shall not, either prior to any effective date or thereafter during such period as the Prospectus is required by law to be delivered (whether physically or through compliance with Rule 172 of the Rules and Regulations or any similar rule) (the "Prospectus Delivery Period") in connection with sales of the Public Securities by an Underwriter or dealer, amend or supplement the Registration Statement, the General Disclosure Package or the Prospectus, unless a copy of such amendment or supplement thereof shall first have been submitted to the Representative within a reasonable period of time prior to the filing or, if no filing is required, the use thereof and the Representative shall not have objected thereto in good faith.

(b) *Amendments and Supplements to the Registration Statement, the General Disclosure Package, and the Prospectus and Other Act Matters*. During the Prospectus Delivery Period, the Company will comply with all requirements imposed upon it by the Act, as now and hereafter amended, and by the Rules and Regulations, as from time to time in force, and by the Exchange Act so far as necessary to permit the continuance of sales of or dealings in the Public Securities as contemplated by the provisions hereof, the General Disclosure Package, the Registration Statement and the Prospectus. If, during the Prospectus Delivery Period, any event or development shall occur or condition exist as a result of which the General Disclosure Package or the Prospectus, as then amended or supplemented, would include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances then prevailing or under which they were made, as the case may be, not misleading, or if it shall be necessary to amend or supplement the General Disclosure Package or the Prospectus in order to make the statements therein, in the light of the circumstances then prevailing or under which they were made, as the case may be, not misleading, or if in the opinion of the Representative it is otherwise necessary to amend or supplement the Registration Statement, the General Disclosure Package or the Prospectus, or to file a new registration statement containing the Prospectus, in order to comply with the Act, the Rules and Regulations, the Exchange Act or the Exchange Act Rules, including in connection with the delivery of the Prospectus, the Company agrees to (i) promptly notify the Representative of any such event or condition and (ii) promptly prepare (subject to Section 4(a) and 4(f) hereof), file with the Commission (and use its best efforts to have any amendment to the Registration Statement or any new registration statement to be declared effective) and furnish at its own expense to the Representative (and, if applicable, to dealers), amendments or supplements to the Registration Statement, the General Disclosure Package or the Prospectus, or any new registration statement, necessary in order to make the statements in the General Disclosure Package or the Prospectus as so amended or supplemented, in the light of the circumstances then prevailing or under which they were made, as the case may be, not misleading, or so that the Registration Statement or the Prospectus, as amended or supplemented, will comply with the Act, the Rules and Regulations, the Exchange Act or the Exchange Act Rules or any other applicable law.

(c) *Notifications to the Underwriters.* The Company shall use its best efforts to cause the Registration Statement to become effective, and shall notify the Representative promptly, and shall confirm such advice in writing, (i) when any post-effective amendment to the Registration Statement has become effective and when any post-effective amendment thereto becomes effective, (ii) of any request by the Commission for amendments or supplements to the Registration Statement or the Prospectus or for additional information, (iii) of the commencement by the Commission or by any state securities commission of any proceedings for the suspension of the qualification of any of the Public Securities for offering or sale in any jurisdiction or of the initiation, or the threatening, of any proceeding for that purpose, including, without limitation, the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or the initiation of any proceedings for that purpose or the threat thereof, (iv) of the happening of any event during the Prospectus Delivery Period that in the judgment of the Company makes any statement made in the Registration Statement or the Prospectus misleading (including by omission) or untrue or that requires the making of any changes in the Registration Statement or the Prospectus in order to make the statements therein, in light of the circumstances in which they are made, not misleading (including by omission), and (v) of receipt by the Company or any representative of the Company of any other communication from the Commission relating to the Company, the Registration Statement, any preliminary prospectus or the Prospectus. If at any time the Commission shall issue any order suspending the effectiveness of the Registration Statement, the Company shall use best efforts to obtain the withdrawal of such order at the earliest possible moment. The Company shall comply with the provisions of and make all requisite filings with the Commission pursuant to Rules 424(b), 430A, 430B and 462(b) of the Rules and Regulations and to notify the Representative promptly of all such filings.

(d) *Executed Registration Statement.* The Company shall furnish to the Representative, without charge, one signed copy of the Registration Statement, and of any post-effective amendment thereto, including financial statements and schedules, and all exhibits thereto, and shall furnish to the Representative, without charge, a copy of the Registration Statement and any post-effective amendment thereto, including financial statements and schedules but without exhibits.

(e) *Undertakings.* The Company shall comply with all the provisions of any undertakings contained and required to be contained in the Registration Statement.

(f) *Prospectus.* The Company shall prepare the Prospectus in a form approved by the Representative and shall file such Prospectus with the Commission pursuant to Rule 424(b) of the Rules and Regulations with a filing date not later than the second business day following the execution and delivery of this Agreement. Promptly after the effective date of the Registration Statement, and thereafter from time to time during the period when the Prospectus is required (or, but for the provisions of Rule 172 under the Act, would be required) to be delivered, the Company shall deliver to the Representative, without charge, as many electronic copies of the Prospectus and any amendment or supplement thereto as the Representative may reasonably request. The Company consents to the use of the Prospectus and any amendment or supplement thereto by the Representative and by all dealers to whom the Public Securities may be sold, both in connection with the offering or sale of the Public Securities and for any period of time thereafter during the Prospectus Delivery Period. If, during the Prospectus Delivery Period any event shall occur that in the judgment of the Company or counsel to the Underwriters should be set forth in the Prospectus in order to make any statement therein, in the light of the circumstances under which it was made, not misleading (including by omission), or if it is necessary to supplement or amend the Prospectus to comply with law, the Company shall forthwith prepare and duly file with the Commission an appropriate supplement or amendment thereto, and shall deliver to the Representative, without charge, such number of electronic copies thereof as the Representative may reasonably request.

(g) *Permitted Free Writing Prospectuses.* The Company represents and agrees that it has not made and, unless it obtains the prior consent of the Representative, will not make, any offer relating to the Public Securities that would constitute a "free writing prospectus" as defined in Rule 405 of the Rules and Regulations, required to be filed with the Commission or retained by the Company under Rule 433 of the Rules and Regulations; *provided* that the prior written consent of the Representative hereto shall be deemed to have been given in respect of the Issuer Free Writing Prospectuses included in Schedule I hereto. Any such free writing prospectus consented to by the Representative is herein referred to as a "Permitted Free Writing Prospectus." The Company agrees that (i) it has treated and will treat, as the case may be, each Permitted Free Writing Prospectus as an Issuer Free Writing Prospectus, and (ii) has complied and will comply, as the case may be, with the requirements of Rules 164 and 433 of the Act applicable to any Permitted Free Writing Prospectus, including in respect of timely filing with the Commission, legending and record keeping. If at any time following the issuance of an Issuer Free Writing Prospectus there occurs an event or development as a result of which such Issuer Free Writing Prospectus would conflict with the information contained in the Registration Statement relating to the Public Securities or would include an untrue statement of material fact or would omit to state a material fact necessary in order to make the statements therein, in light of the circumstances prevailing at that subsequent time, not misleading, the Company will promptly notify the Representative and will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement, or omission. The Company represents that it has satisfied and agrees that it will satisfy the conditions in Rule 433 to avoid a requirement to file with the Commission any electronic road show.

(h) *Compliance with Blue Sky Laws.* Prior to any public offering of the Public Securities by the Underwriters, the Company shall cooperate with the Representative and counsel to the Underwriters in connection with the registration or qualification (or the obtaining of exemptions from the application thereof) of the Public Securities for offer and sale under the securities or Blue Sky laws of such jurisdictions as the Representative may request limitation, *provided*, *however*, that in no event shall the Company be obligated to qualify a public offering outside the United States or to do business as a foreign corporation in any jurisdiction where it is not now so qualified, to qualify or register as a dealer in securities, to take any action which would subject it to general service of process in any jurisdiction where it is not now so subject or subject itself to ongoing taxation in respect of doing business in any jurisdiction in which it is not so subject.

(i) *Delivery of Financial Statements.* During the period of five years commencing on the effective date of the Registration Statement applicable to the Underwriters, the Company shall furnish to the Representative and each other Underwriter who may so request copies of such financial statements and other periodic and special reports as the Company may from time to time distribute generally to the holders of any class of its capital stock, and will furnish to the Representative and each other Underwriter who may so request a copy of each annual or other report it shall be required to file with the Commission; provided, however, that the availability of electronically transmitted copies filed with the Commission pursuant to EDGAR shall satisfy the Company's obligation to furnish copies hereunder.

(j) *Availability of Earnings Statements.* The Company shall make generally available to holders of its securities as soon as may be practicable but in no event later than the last day of the fifteenth (15^{th}) full calendar month following the calendar quarter in which the most recent effective date occurs in accordance with Rule 158 of the Rules and Regulations, an earnings statement (which need not be audited but shall be in reasonable detail) for a period of twelve (12) months ended commencing after the effective date, and satisfying the provisions of Section 11(a) of the Act (including Rule 158 of the Rules and Regulations).

(k) *Consideration; Payment of Expenses.* In consideration of the services to be provided for hereunder, the Company shall pay to the Underwriters or their respective designees their pro rata portion (based on the Public Securities purchased) of the following aggregate compensation with respect to the Public Securities they are offering:

(i) An underwriting discount equal to eight percent (8%) of the aggregate gross proceeds raised in the offering of Public Securities from sales to purchasers introduced by the Underwriters or an underwriting discount equal to six percent (6%) of the aggregate gross proceeds raised in the offering of Public Securities from sales to purchasers introduced by the Company*; provided, however*, that no discount or commission will be payable by the Company in respect of Firm Shares issued in satisfaction of the Director Note and/or Investor Note (each as defined in the Registration Statement);

(ii) The Representative's Warrants; and

(iii) Additionally, if the Closing occurs, the Company grants the Representative the right of first refusal for a period of eighteen (18) months from the date of commencement of sales pursuant to the Prospectus to act as sole managing underwriter and sole book runner for any and all future public or private equity, equity-linked or debt (excluding commercial bank debt) offerings undertaken by the Company, or any successor to the Company. The Company shall provide written notice to the Representative with the terms of such offering and if the Representative fails to accept in writing any such proposal within ten (10) business days after receipt of such written notice, then the Representative will have no claim or right with respect to any such offering(s).

(iv) The Representative reserves the right to reduce any item of compensation or adjust the terms thereof as specified herein in the event that a determination shall be made by FINRA to the effect that the Underwriters' aggregate compensation is in excess of FINRA rules or that the terms thereof require adjustment.

(v) Whether or not the transactions contemplated by this Agreement, the Registration Statement and the Prospectus are consummated or this Agreement is terminated, the Company hereby agrees to pay the following:

(1) all expenses in connection with the preparation, printing, formatting for EDGAR and filing of the Registration Statement, any Preliminary Prospectus and the Prospectus and any and all exhibits, amendments and supplements thereto and the mailing and delivering of copies thereof to the Underwriters and dealers;

(2) all filing fees in connection with filings with FINRA's Public Offering System;

(3) all fees, disbursements and expenses of the Company's counsel, accountants and other agents and representatives in connection with the registration of the Registered Securities under the Act and the offering of the Public Securities;

(4) all expenses in connection with the qualifications of the Public Securities for offering and sale under state or foreign securities or blue sky laws (including, without limitation, all filing and registration fees, and the fees and disbursements of Underwriters' counsel;

(5) all fees and expenses in connection with listing the Shares on a national securities exchange;

(6) all expenses, including travel and lodging expenses, of the Company's officers, directors and employees and any other expense of the Company incurred in connection with attending or hosting meetings with prospective purchasers of the Public Securities and any fees and expenses associated with the i-Deal system and NetRoadshow;

(7) any stock transfer taxes or other taxes incurred in connection with this Agreement or the offering, including any stock transfer taxes payable upon the transfer of securities to the Underwriters;

(8) the costs associated with preparing, printing and delivering certificates representing the Public Securities;

(9) the cost and charges of any transfer agent or registrar for the Public Securities;

(10) subject to the following proviso, other costs (including Underwriters' counsel's fees and expenses) and expenses incident to the offering of Public Securities that are not otherwise specifically provided for in this Section 4(k);

(11) costs relating to background checks of the Company's officers and directors;

provided, however, that all such Underwriters' counsel's fees and expenses that are incurred by the Underwriters and for which the Company shall be responsible shall not exceed $100,000 in the aggregate in the event of a closing of the offering of Public Securities.

(l) [Reserved]

(m) *Reimbursement of Expenses upon Termination of Agreement.* If this Agreement shall be terminated by the Company pursuant to any of the provisions hereof or if for any reason the Company shall be unable to perform its obligations or to fulfill any conditions hereunder, or if the Underwriters shall terminate this Agreement pursuant to the last paragraph of Section 5, Section 7(a), Section 7(e) or Section 7(f), the Company shall reimburse the Underwriters for all reasonable accountable out-of-pocket expenses (including the reasonable fees, disbursements and other charges of counsel to the Underwriter) actually incurred by the Underwriters in connection herewith and as allowed under FINRA Rule 5110; *provided*, *however*, that the maximum amount of costs and expenses to be reimbursed by Company to the Underwriters pursuant to this Section 4(l) in respect of the fees, disbursements and other charges of counsel to the Underwriters shall not exceed $50,000.

(n) *No Stabilization or Manipulation.* The Company shall not at any time, directly or indirectly, take any action intended to cause or result in, or which might reasonably be expected to cause or result in, or which will constitute, stabilization or manipulation, under the Act or otherwise, of the price of the Shares to facilitate the sale or resale of any of the Public Securities.

(o) *Use of Proceeds.* The Company shall apply the net proceeds from the offering and sale of the Public Securities to be sold by the Company in the manner set forth in the General Disclosure Package and the Prospectus under "Use of Proceeds" and shall file such reports with the Commission with respect to the sale of the Public Securities and the application of the proceeds therefrom as may be required in accordance with Rule 463 under the Act.

(p) *Lock-Up Agreements of Company, Management and Stockholders.* The Company shall not, for a period of one hundred and eighty (180) days after the Closing Date (the "Lock-Up Period"), without the prior written consent of Maxim (which consent may be withheld in its sole discretion), (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, or file with the Commission a registration statement under the Act to register, any shares of Common Stock, warrants, or any securities convertible into or exercisable or exchangeable for shares of Common Stock or (2) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, directly or indirectly, any of the economic benefits or risks of ownership of Shares, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Shares or other securities, in cash or otherwise, or publicly disclose the intention to enter into any transaction described in clause (1) or (2) above. The foregoing sentence shall not apply to (A) the Public Securities to be sold pursuant to the Registration Statement (including, but not limited to, the shares of Common Stock to be issued in satisfaction of the Investor Note and Director Note), (B) the Representative's Warrants and the Representative's Warrant Shares, (C) the Advisor Warrants and the shares of Common Stock issuable upon exercise of the Advisor Warrants, (D) the issuance of shares of Common Stock upon the exercise or conversion of options, warrants or convertible securities outstanding, and as in effect, on the date of this Agreement, (E) the issuance of preferred stock upon close of the offering of Public Securities, and the issuance of shares of Common Stock upon the conversion of such preferred stock, in each case, as contemplated in the Registration Statement; (F) the issuance of shares of Common Stock held by existing stockholders of the Company, including shares of Common Stock underlying warrants, stock options and other derivative securities to acquire the Company's Common Stock, pursuant to one or more resale registration statements on Form S-1, pursuant to the Company's obligations as disclosed in the Registration Statement; or (G) any shares, dividend equivalent rights or other equity based awards issued, or options to purchase shares granted, pursuant to existing employee benefit plans of the Company referred to in the Registration Statement, the General Disclosure Package or the Prospectus (including the filing of a registration statement on Form S-8 relating to such existing employee benefit plans of the Company referred to in the Registration Statement, the General Disclosure Package or the Prospectus). The Company has caused each of its officers, directors and certain of its stockholders to enter into agreements with the Representative in the form set forth in Exhibit A.

(q) *Lock-Up Releases*. If Maxim, in its sole discretion, agrees to release or waive the restrictions set forth in a lock-up letter described in the final sentence of Section 4(p) for an officer or director of the Company and provides the Company with notice of the impending release or waiver at least three business days before the effective date of the release or waiver, the Company agrees to announce the impending release or waiver by a press release substantially in the form of Exhibit B hereto through a major news service at least two business days before the effective date of such release or waiver, or any other method that satisfies the obligations described in FINRA Rule 5131(d)(2) at least two business days before the effective date of the release or waiver.

(r) *NYSE American Listing*. The Company will use its reasonable best efforts to effect and maintain the listing of the Shares on the NYSE American for at least three (3) years after the Closing Date.

(s) The Company shall use its reasonable best efforts to maintain the effectiveness of the Registration Statement and a current Prospectus relating thereto for as long as the Representative's Warrants remain outstanding. During any period when the Company fails to have maintained an effective Registration Statement or a current Prospectus relating thereto and a holder of Representative's Warrants desires to exercise such warrant and, in the opinion of counsel to the holder, Rule 144 is not available as an exemption from registration for the resale of the Representative's Warrant Shares, the Company shall promptly file a registration statement registering the resale such securities and use its reasonable best efforts to have it declared effective by the Commission within thirty (30) days.

(t) *Variable Rate Transactions.* From the date hereof through and including the one year anniversary of the Closing Date, neither the Company nor any Subsidiary shall enter into, announce the entering into, or proposed entering into, a Variable Rate Transaction. For purposes hereof, a "Variable Rate Transaction" shall mean, collectively, an Equity Line of Credit or similar agreement, or a Variable Priced Equity Linked Instrument. For purposes hereof, "Equity Line of Credit" means any transaction involving a written agreement between the Company and an investor or underwriter whereby the Company has the right to "put" its securities to the investor or underwriter over an agreed period of time and at future determined price or price formula (other than customary "preemptive" or "participation" rights or "weighted average" or "full-ratchet" anti-dilution provisions or in connection with fixed-price rights offerings and similar transactions that are not Variable Priced Equity Linked Instruments), and "Variable Priced Equity Linked Instruments" means: (A) any debt or equity securities which are convertible into, exercisable or exchangeable for, or carry the right to receive additional Shares either (1) at any conversion, exercise or exchange rate or other price that is based upon and/or varies with the trading prices of or quotations for Shares at any time after the initial issuance of such debt or equity security, or (2) with a conversion, exercise or exchange price that is subject to being reset on more than one occasion at some future date at any time after the initial issuance of such debt or equity security due to a change in the market price of the Shares since date of initial issuance (other than customary "preemptive" or "participation" rights or "weighted average" or "full-ratchet" anti-dilution provisions or in connection with fixed-price rights offerings and similar transactions), and (B) any amortizing convertible security which amortizes prior to its maturity date, where the Company is required or has the option to (or any investor in such transaction has the option to require the Company to) make such amortization payments in Shares which are valued at a price that is based upon and/or varies with the trading prices of or quotations for Shares at any time after the initial issuance of such debt or equity security (whether or not such payments in stock are subject to certain equity conditions). For the avoidance of doubt, the foregoing shall not prevent the Company from conducting "at-the-market" offerings or similar equity distribution programs, and shall not prevent the Company from fulfilling its obligations in respect of securities of the Company outstanding on the date of this Agreement or to be issued in connection with the close of the offering of Public Securities, in each case, as disclosed in the Registration Statement.

5. Conditions of the Obligations of the Underwriters. The obligation of the Underwriters to purchase the Firm Shares on the Closing Date or the Option Shares on the Option Closing Date, as the case may be, as provided herein is subject to the accuracy of the representations and warranties of the Company, the performance by the Company of its covenants and other obligations hereunder and to the following additional conditions:

(a) *Post Effective Amendments and Prospectus Filings.* Notification that the Registration Statement has become effective shall be received by the Representative not later than 4:30 p.m., New York City time, on the date of this Agreement or at such later date and time as shall be consented to in writing by the Representative and all filings made pursuant to Rules 424, 430A, or 430B of the Rules and Regulations, as applicable, shall have been made or will be made prior to the Closing Date in accordance with all such applicable rules.

(b) *No Stop Orders, Requests for Information and No Amendments.* (i) No stop order suspending the effectiveness of the Registration Statement shall have been issued and no proceedings for that purpose shall be pending or are, to the knowledge of the Company, threatened by the Commission, (ii) no order suspending the qualification or registration of the Public Securities under the securities or Blue Sky laws of any jurisdiction shall be in effect and no proceeding for such purpose shall be pending before or threatened or contemplated by the authorities of any such jurisdiction, (iii) any request for additional information on the part of the staff of the Commission or any such authorities shall have been complied with to the satisfaction of the staff of the Commission or such authorities and (iv) after the date hereof no amendment or supplement to the Registration Statement or the Prospectus shall have been filed unless a copy thereof was first submitted to the Representative and the Representative did not object thereto in good faith, and the Representative shall have received certificates, dated the Closing Date and the Option Closing Date and signed by the Chief Executive Officer or the Chairman of the Board of Directors and the Chief Financial Officer of the Company in their capacities as such, and not individually, (who may, as to proceedings threatened, certify to their knowledge), to the effect of clauses (i), (ii) and (iii).

(c) *No Material Adverse Effects.* Since the respective dates as of which information is given in the Registration Statement and the Prospectus, except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus (i) there shall not have been a Material Adverse Effect, (ii) the Company shall not have incurred any material liabilities or obligations, direct or contingent, (iii) the Company shall not have entered into any material transactions not in the ordinary course of business other than pursuant to this Agreement and the transactions referred to herein, (iv) the Company shall not have issued any securities (other than the securities or the shares issued in the ordinary course of business pursuant to existing employee benefit plans of the Company referred to in the Registration Statement, General Disclosure Package and the Prospectus) or declared or paid any dividend or made any distribution in respect of its capital stock of any class or debt (long-term or short-term), and (v) no material amount of the assets of the Company shall have been pledged, mortgaged or otherwise encumbered.

(d) *No Actions, Suits or Proceedings.* Since the respective dates as of which information is given in the Registration Statement, the General Disclosure Package and the Prospectus, there shall have been no actions, suits or proceedings instituted, or to the Company's knowledge, threatened against or affecting, the Company or any of its officers in their capacity as such, before or by any federal, state or local court, commission, regulatory body, administrative agency or other governmental body, domestic or foreign.

(e) *All Representations True and Correct and All Conditions Fulfilled.* Each of the representations and warranties of the Company contained herein shall be true and correct as of the date of the Agreement and at the Closing Date as if made at the Closing Date and any Option Closing Date, as the case may be, and all covenants and agreements contained herein to be performed by the Company and all conditions contained herein to be fulfilled or complied with by the Company at or prior to the Closing Date and any Option Closing Date, shall have been duly performed, fulfilled or complied with.

(f) *Opinions of Counsel to the Company.* The Underwriters shall have received the opinions and letters, each dated the Closing Date and any Option Closing Date, as the case may be, each reasonably satisfactory in form and substance to the Representative and counsel for the Underwriters, from Sullivan & Worcester LLP, as corporate/securities counsel.

(g) *Opinion of Counsel to the Underwriters.* The Representative shall have received an opinion, dated the Closing Date and any Option Closing Date, as the case may be, from Pryor Cashman LLP, securities counsel to the Underwriters, with respect to the Registration Statement, the Prospectus and this Agreement, which opinions shall be satisfactory in all respects to the Representative.

(h) *Accountants' Comfort Letter.* On the date of the Prospectus, the Representative shall have received from the Accountants a letter dated the date of its delivery, addressed to the Underwriters, in form and substance reasonably satisfactory to the Representative and counsel to the Underwriters, containing statements and information of the type ordinarily included in accountant's "comfort letters" to underwriters, delivered according to Statement of Auditing Standards No. 72 (or any successor bulletin), with respect to the audited and unaudited financial statements and certain financial information contained in the Registration Statement and the Prospectus. At the Closing Date and any Option Closing Date, as the case may be, the Representative shall have received from the Accountants a letter dated such date, in form and substance reasonably satisfactory to the Representative and counsel to the Underwriters, to the effect that they reaffirm the statements made in the letter furnished by them pursuant to the preceding sentence and have conducted additional procedures with respect to certain financial figures included in the Prospectus, except that the specified date referred to therein for the carrying out of procedures shall be no more than three business days prior to the Closing Date or any Option Closing Date, as the case may be.

(i) *Officers' Certificates.* At the Closing Date and any Option Closing Date, there shall be furnished to the Representative an accurate certificate, dated the date of its delivery, signed by each of the Chief Executive Officer and the Chief Financial Officer of the Company, in their capacities as such, and not individually, in form and substance satisfactory to the Representative and counsel to the Underwriters, to the effect that:

(i) each signer of such certificate has carefully examined the Registration Statement and the Prospectus;

(ii) there has not been a Material Adverse Effect; and

(iii) with respect to the matters set forth in Sections 5(b)(i) and 5(e).

(j) *Reserved*.

(k) *Transfer Agent's Certificate* . The Company's transfer agent shall have furnished or caused to be furnished to the Representative a certificate satisfactory to the Representative of one of its authorized officers with respect to the issuance of the Shares and such other customary matters related thereto as the Representative may reasonably request.

(l) *Eligible for DTC Clearance*. At or prior to the Closing Date and each Option Closing Date, the Shares shall be eligible for clearance and settlement through the facilities of the DTC.

(m) *Lock-Up Agreements.* At the date of this Agreement, the Representative shall have received the executed "lock-up" agreements referred to in Section 4(p) hereof from the Company's directors, executive officers, and certain of our stockholders.

(n) *Compliance with Blue Sky Laws.* The Public Securities shall be qualified for sale in such states and jurisdictions as the Representative may reasonably request, including, without limitation, qualification for exemption from registration or prospectus delivery requirements in the provinces and territories of Canada and other jurisdictions outside the United States, and each such qualification shall be in effect and not subject to any stop order or other proceeding on the Closing Date and the Option Closing Date.

(o) *Stock Exchange Listing.* The Shares shall have been duly authorized for listing on the NYSE American, subject to official notice of issuance.

(p) *Exchange Act Registration.* One or more registration statements in respect of the Shares have been filed on Form 8-A pursuant to Section 12(b) of the Exchange Act, each of which registration statement complies in all material respects with the Exchange Act.

(q) *Good Standing.* At the Closing Date and any Option Closing Date, the Company shall have furnished to the Representative satisfactory evidence of the good standing of the Company, in its jurisdictions of organization (to the extent the concept of "good standing" or such equivalent concept exists under the laws of the applicable jurisdictions) and its good standing as foreign entities in such other jurisdictions as the Representative may reasonably request, in each case in writing or any standard form of telecommunication from the appropriate governmental authorities of such jurisdictions. If the applicable jurisdiction does not have a concept of "good standing," the Company will furnish evidence in writing or any standard form of telecommunication from the appropriate governmental authorities that the relevant company was duly incorporated and remains duly registered in the jurisdiction of its incorporation.

(r) *Company Certificates.* The Company shall have furnished to the Representative such certificates, in addition to those specifically mentioned herein, as the Representative may have reasonably requested as to the accuracy and completeness at the Closing Date and any Option Closing Date of any statement in the Registration Statement, the General Disclosure Package or the Prospectus, as to the accuracy at the Closing Date and any Option Closing Date of the representations and warranties of the Company herein, as to the performance by the Company of its obligations hereunder, or as to the fulfillment of the conditions concurrent and precedent to the obligations hereunder of the Underwriters.

(s) *No Objection.* FINRA has confirmed that it has not raised any objection with respect to the fairness and reasonableness of the underwriting terms and arrangements relating to the offering of the Public Securities.

If any of the conditions hereinabove provided for in this Section 5 shall not have been fulfilled when and as required by this Agreement to be fulfilled, the obligations of the Underwriters hereunder may be terminated by the Representative by notifying the Company of such termination in writing at or prior to the Closing Date or any Option Closing Date, as the case may be.

6. Indemnification.

(a) *Indemnification of the Underwriters.* The Company shall indemnify and hold harmless each Underwriter, its affiliates, the directors, officers, employees and agents of such Underwriter and each person, if any, who controls such Underwriter within the meaning of Section 15 of the Act or Section 20 of the Exchange Act from and against any and all losses, claims, liabilities, expenses and damages (including any and all investigative, legal and other expenses reasonably incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding between any of the indemnified parties and any indemnifying parties or between any indemnified party and any third party, or otherwise, or any claim asserted), to which they, or any of them, may become subject under the Act, the Exchange Act or other federal or state statutory law or regulation, at common law or otherwise, insofar as such losses, claims, liabilities, expenses or damages arise out of or are based on (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto), including the information deemed to be a part of the Registration Statement at the time of effectiveness and at any subsequent time pursuant to Rules 430A and 430B of the Rules and Regulations, as applicable, or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading or (ii) any untrue statement or alleged untrue statement of a material fact contained in any preliminary prospectus, any preliminary prospectus supplement, any Issuer Free Writing Prospectus or the Prospectus (or any amendment or supplement to any of the foregoing) or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading or (iii) any untrue statement or alleged untrue statement of a material fact contained in any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the offering of the Public Securities, including any roadshow or investor presentations made to investors by the Company (whether in person or electronically) (collectively, Marketing Materials") or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading or (iv) in whole or in part any inaccuracy in any material respect in the representations and warranties of the Company contained herein; *provided*, *however*, that the Company shall not be liable to the extent that such loss, claim, liability, expense or damage is based on any untrue statement or omission or alleged untrue statement or omission made in reliance on and in conformity with Underwriters' Information. This indemnity agreement will be in addition to any liability that the Company might otherwise have.

(b) *Indemnification of the Company.* Each Underwriter, severally and not jointly, agrees to indemnify and hold harmless the Company, its affiliates, the directors, officers, employees and agents of the Company and each other person or entity, if any, who controls the Company within the meaning of Section 15 of the Act or Section 20 of the Exchange Act, against any losses, liabilities, claims, damages and expenses whatsoever, as incurred (including but not limited to reasonable attorneys' fees and any and all reasonable expenses whatsoever, incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, and any and all amounts paid in settlement of any claim or litigation), joint or several, to which they or any of them may become subject under the Act, the Exchange Act or otherwise, insofar as such losses, liabilities, claims, damages or expenses (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement at the time of effectiveness and at any subsequent time pursuant to Rules 430A and 430B of the Rules and Regulations, any Preliminary Prospectus, the Prospectus, or any amendment or supplement to any of them, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that any such loss, liability, claim, damage or expense (or action in respect thereof) arises out of or is based upon any such untrue statement or alleged untrue statement or omission or alleged omission made therein in reliance upon the Underwriters' Information; provided, however, that in no case shall any Underwriter be liable or responsible for any amount in excess of the underwriting discount and commissions applicable to the Public Securities purchased by such Underwriter hereunder. The parties agree that such information provided by or on behalf of the Underwriters through the Representative consists solely of the material referred to in the last sentence of Section 3(c) hereof.

(c) *Indemnification Procedures.* Any party that proposes to assert the right to be indemnified under this Section 6 shall, promptly after receipt of notice of commencement of any action against such party in respect of which a claim is to be made against an indemnifying party or parties under this Section 6, notify each such indemnifying party of the commencement of such action, enclosing a copy of all papers served, but the omission so to notify such indemnifying party shall not relieve the indemnifying party from any liability that it may have to any indemnified party under the foregoing provisions of this Section 6 unless, and only to the extent that, such omission results in the forfeiture of substantive rights or defenses by the indemnifying party. If any such action is brought against any indemnified party and it notifies the indemnifying party of its commencement, the indemnifying party will be entitled to participate in and, to the extent that it elects by delivering written notice to the indemnified party promptly after receiving notice of the commencement of the action from the indemnified party, jointly with any other indemnifying party similarly notified, to assume the defense of the action, with counsel satisfactory to the indemnified party, and after notice from the indemnifying party to the indemnified party of its election to assume the defense, the indemnifying party will not be liable to the indemnified party for any legal or other expenses except as provided below and except for the reasonable out-of-pocket costs of investigation subsequently incurred by the indemnified party in connection with the defense. The indemnified party will have the right to employ its own counsel in any such action, but the fees, expenses and other charges of such counsel will be at the expense of such indemnified party unless (i) the employment of counsel by the indemnified party has been authorized in writing by one of the indemnifying parties in connection with the defense of such action, (ii) the indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party, (iii) the indemnified party has reasonably concluded that a conflict or potential conflict exists (based on advice of counsel to the indemnified party) between the indemnified party and the indemnifying party (in which case the indemnifying party shall not have the right to direct the defense of such action on behalf of the indemnified party), (iv) the indemnifying party does not diligently defend the action after assumption of the defense, or (v) the indemnifying party has not in fact employed counsel satisfactory to the indemnified party to assume the defense of such action within a reasonable time after receiving notice of the commencement of the action, in each of which cases the reasonable fees, disbursements and other charges of counsel shall be at the expense of the indemnifying party or parties. It is understood that the indemnifying party or parties shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable fees, disbursements and other charges of more than one separate firm admitted to practice in such jurisdiction at any one time for all such indemnified party or parties. All such fees, disbursements and other charges shall be reimbursed by the indemnifying party promptly as they are incurred. An indemnifying party shall not be liable for any settlement of any action or claim effected without its written consent (which consent will not be unreasonably withheld or delayed). No indemnifying party shall, without the prior written consent of each indemnified party, settle or compromise or consent to the entry of any judgment in any pending or threatened claim, action or proceeding relating to the matters contemplated by this Section 6 (whether or not any indemnified party is a party thereto), unless (x) such settlement, compromise or consent (i) includes an unconditional release of each indemnified party from all liability arising or that may arise out of such claim, action or proceeding and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party, and (y) the indemnifying party confirms in writing its indemnification obligations hereunder with respect to such settlement, compromise or judgment. Notwithstanding the foregoing, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated by Section 6(a) effected without its written consent if (A) such settlement is entered into more than 45 days after receipt by such indemnifying party of the aforesaid request, (B) such indemnifying party shall have received notice of the terms of such settlement at least 30 days prior to such settlement being entered into and (iii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

(d) *Contribution.* In order to provide for just and equitable contribution in circumstances in which the indemnification provided for in the foregoing paragraphs of this Section 6 is applicable in accordance with its terms but for any reason is held to be unavailable, the Company and the Underwriters shall contribute to the total losses, claims, liabilities, expenses and damages (including any investigative, legal and other expenses reasonably incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding or any claim asserted, but after deducting any contribution received by the Company from persons other than the Underwriters, such as persons who control the Company within the meaning of the Act, officers of the Company who signed the Registration Statement and directors of the Company, who may also be liable for contribution), to which the Company and the Underwriter may be subject in such proportion as shall be appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the offering of the Public Securities pursuant to this Agreement. The relative benefits received by the Company and the Underwriters shall be deemed to be in the same proportion as (x) the total proceeds from the offering of Public Securities (net of underwriting discount and commissions but before deducting expenses) received by the Company bears to (y) the underwriting discount and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. If, but only if, the allocation provided by the foregoing sentence is not permitted by applicable law, the allocation of contribution shall be made in such proportion as is appropriate to reflect not only the relative benefits referred to in the foregoing sentence but also the relative fault of the Company, on the one hand, and the Underwriters, on the other, with respect to the statements or omissions which resulted in such loss, claim, liability, expense or damage, or action in respect thereof, as well as any other relevant equitable considerations with respect to such offering. Such relative fault shall be determined by reference to whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 6(d) were to be determined by pro rata allocation or by any other method of allocation (even if the Underwriters were treated as one entity for such purpose) which does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, liability, expense or damage, or action in respect thereof, referred to above in this Section 6(d) shall be deemed to include, for purpose of this Section 6(d), any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 6(d), no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions received by it. No person found guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 6(d), any person who controls a party to this Agreement within the meaning of the Act will have the same rights to contribution as that party, and each officer of the Company who signed the Registration Statement will have the same rights to contribution as the Company, and each director, officer, employee, counsel or agent of an Underwriter will have the same rights to contribution as such Underwriter, subject in each case to the provisions hereof. Any party entitled to contribution, promptly after receipt of notice of commencement of any action against such party in respect of which a claim for contribution may be made under this Section 6(d), will notify any such party or parties from whom contribution may be sought, but the omission so to notify will not relieve the party or parties from whom contribution may be sought from any other obligation it or they may have under this Section 6(d). The obligations of the Underwriters to contribute pursuant to this Section 6(d) are several in proportion to the respective number of Public Securities to be purchased by each of the Underwriters hereunder and not joint. No party will be liable for contribution with respect to any action or claim settled without its written consent (which consent will not be unreasonably withheld).

(e) *Survival.* The indemnity and contribution agreements contained in this Section 6 and the representations and warranties of the Company contained in this Agreement shall remain operative and in full force and effect regardless of (i) any investigation made by or on behalf of any Underwriter or any controlling Person thereof, (ii) acceptance of any of the Public Securities and payment therefor or (iii) any termination of this Agreement.

7. Termination. The obligations of the Underwriters under this Agreement may be terminated at any time prior to the Closing Date (or, with respect to the Option Shares, on or prior to the Option Closing Date), by notice to the Company from the Representative, without liability on the part of the Underwriters to the Company, if, prior to delivery and payment for the Firm Shares (or the Option Shares, as the case may be), in the sole judgment of the Representative, any of the following shall occur:

(a) trading or quotation in any of the equity securities of the Company shall have been suspended or limited by the Commission, NYSE American or by an exchange or otherwise;

(b) trading in securities generally on the New York Stock Exchange, the NYSE American, the NASDAQ Capital Market, the NASDAQ Global Market, the NASDAQ Global Select Market shall have been suspended or limited or minimum or maximum prices shall have been generally established on such exchange, or additional material governmental restrictions, not in force on the date of this Agreement, shall have been imposed upon trading in securities generally by such exchange or by order of the Commission or any court or other governmental authority;

(c) a general banking moratorium shall have been declared by any of U.S. federal or New York authorities;

(d) the United States shall have become engaged in new hostilities, there shall have been an escalation in hostilities involving the United States or there shall have been a declaration of a national emergency or war by the United States or there shall have occurred such a material adverse change in general economic, political or financial conditions, including, without limitation, as a result of terrorist activities after the date hereof (or the effect of international conditions on the financial markets in the United States shall be such), or any other calamity or crisis shall have occurred, the effect of any of which is such as to make it impracticable or inadvisable to market the Shares on the terms and in the manner contemplated by the Prospectus;

(e) the Company shall have sustained a loss material or substantial to the Company by reason of flood, fire, accident, hurricane, earthquake, theft, sabotage, or other calamity or malicious act, whether or not such loss shall have been insured, the effect of any of which is such as to make it impracticable or inadvisable to market the Public Securities on the terms and in the manner contemplated by the Prospectus; or

(f) there shall have been a Material Adverse Effect.

8. Underwriter Default.

(a) If any Underwriter or Underwriters shall default in its or their obligation to purchase Firm Shares hereunder, the Representatives may in their discretion arrange for the Representatives or another party or other parties satisfactory to the Company to purchase such Firm Shares on the terms contained herein. If within three (3) Trading Days after such default by any Underwriter the Representatives do not arrange for the purchase of such Firm Shares, then the Company shall be entitled to a further period of three (3) Trading Days within which to procure another party or other parties satisfactory to the Representatives to purchase such Firm Shares on such terms.

(b) If, after giving effect to any arrangements for the purchase of Firm Shares of a defaulting Underwriter or Underwriters by the Representatives and the Company as provided in subsection (a) above, the Firm Shares with respect to which such default relates (the "Default Securities") do not (after giving effect to arrangements, if any, made by the Representative pursuant to subsection (b) below) exceed in the aggregate 10% of the number of the Firm Shares, then each non-defaulting Underwriter, acting severally and not jointly, agrees to purchase from the Company that number of Default Securities that bears the same proportion to the total number of Default Securities then being purchased as the number of Firm Shares set forth opposite the name of such Underwriter on Schedule A hereto bears to the aggregate number of Firm Shares set forth opposite the names of the non-defaulting Underwriters; subject, however, to such adjustments to eliminate fractional shares as the Representative in its discretion shall make.

(c) If, after giving effect to any arrangements for the purchase of Firm Shares of a defaulting Underwriter or Underwriters by the Representatives and the Company as provided in subsection (a) above, the aggregate number of Default Securities exceeds 10% of the number of Firm Shares, then the Representatives may in their discretion arrange for themselves or for another party or parties (including any non-defaulting Underwriter or Underwriters who so agree) satisfactory to the Company to purchase the Default Securities on the terms contained herein. In the event that within five (5) calendar days after such a default the Representative does not arrange for the purchase of the Default Securities as provided in this Section 8, this Agreement shall thereupon terminate, without liability on the part of the Company with respect thereto (except in each case as provided in Sections 4(k), 6 and 8) or the Underwriters, but nothing in this Agreement shall relieve a defaulting Underwriter or Underwriters of its or their liability, if any, to the other Underwriters and the Company for damages occasioned by its or their default hereunder.

(c) In the event that any Default Securities are to be purchased by the non-defaulting Underwriters, or are to be purchased by another party or parties as aforesaid, the Representatives or the Company shall have the right to postpone the Closing Date for a period, not exceeding five (5) Business Days, in order to effect whatever changes may thereby be necessary in the Registration Statement or the Prospectus or in any other documents and arrangements, and the Company agrees to file promptly any amendment or supplement to the Registration Statement or the Prospectus which, in the reasonable opinion of Underwriters' Counsel, may be necessary or advisable. The term "Underwriter" as used in this Agreement shall include any party substituted under this Section 8 with like effect as if it had originally been a party to this Agreement with respect to such Firm Shares.

9. Miscellaneous.

(a) *Notices.* Notice given pursuant to any of the provisions of this Agreement shall be in writing and, unless otherwise specified, shall be mailed, hand delivered or telecopied (a) if to the Company, at the office of the Company, 4400 Route 9 South, Suite 1000, Freehold, New Jersey 07728, telephone number: (732) 514-2636, Attention: Chief Executive Officer, or (b) if to the Representative or any Underwriter, to Maxim Group LLC, 405 Lexington Avenue, New York, New York 100174, Attention: Legal Department, telecopy number: (212) 895-3555. Any such notice shall be effective only upon receipt. Any notice under Section 6 hereof may be made by telecopy or telephone, but if so made shall be subsequently confirmed in writing.

(b) *No Third Party Beneficiaries.* This Agreement has been and is made solely for the benefit of the Underwriters, the Company and, with respect to Section 6, the controlling persons, directors, officers, employees, counsel and agents referred to in Section 6 hereof, and their respective successors and assigns, and no other person shall acquire or have any right under or by virtue of this Agreement. The term "successors and assigns" as used in this Agreement shall not include a purchaser of Public Securities from any Underwriter in his, her or its capacity as such a purchaser, as such purchaser of Public Securities from such Underwriter.

(c) *Survival of Representations and Warranties.* All representations, warranties and agreements of the Company contained herein or in certificates or other instruments delivered pursuant hereto shall remain operative and in full force and effect regardless of any investigation made by or on behalf of the Underwriters or any of their controlling persons and shall survive delivery of and payment for the Public Securities hereunder.

(d) *Disclaimer of Fiduciary Relationship.* The Company acknowledges and agrees that (i) the purchase and sale of the Public Securities pursuant to this Agreement, including the determination of the public offering price of the Public Securities and any related discounts and commissions, is an arm's-length commercial transaction between the Company, on the one hand, and the Underwriters, on the other hand, (ii) in connection with the offering of Public Securities contemplated by this Agreement and the process leading to such transaction, the Underwriters are and have been acting pursuant to a contractual relationship created solely by this Agreement and are not agents or fiduciaries of the Company or its securityholders, creditors, employees or any other party, (iii) no Underwriter has assumed nor will it assume any advisory or fiduciary responsibility in favor of the Company with respect to the offering of the Public Securities contemplated by this Agreement or the process leading thereto (irrespective of whether such Underwriter or its affiliates has advised or is currently advising the Company on other matters) and each such Underwriter has no obligation to the Company with respect to the offering of the Public Securities contemplated by this Agreement except the obligations expressly set forth in this Agreement, (iv) the Underwriters and their affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Company, and (v) no Underwriter has provided any legal, accounting, regulatory or tax advice with respect to the offering of Public Securities contemplated by this Agreement and the Company has consulted its own legal, accounting, regulatory and tax advisors to the extent it deemed appropriate.

(e) *Governing Law.* THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK APPLICABLE TO AGREEMENTS MADE AND TO BE PERFORMED ENTIRELY WITHIN SUCH STATE.

(f) *Submission to Jurisdiction.* The Company irrevocably submits to the non-exclusive jurisdiction of any New York State or United States federal court sitting in The City of New York, Borough of Manhattan, over any suit, action or proceeding arising out of or relating to this Agreement, the Disclosure Package, the Prospectus, the Registration Statement, or the offering of the Registered Securities. The Company irrevocably waives, to the fullest extent permitted by law, any objection which it may now or hereafter have to the laying of venue of any such suit, action or proceeding brought in such a court and any claim that any such suit, action or proceeding brought in such a court has been brought in an inconvenient forum. To the extent that the Company has or hereafter may acquire any immunity (on the grounds of sovereignty or otherwise) from the jurisdiction of any court or from any legal process with respect to itself or its property, the Company irrevocably waives, to the fullest extent permitted by law, such immunity in respect of any such suit, action or proceeding including without limitation, any immunity pursuant to the U.S. Foreign Sovereign Immunities Act of 1976, as amended. Each of the Underwriters and the Company further agrees to accept and acknowledge service of any and all process which may be served in any such suit, action or proceeding in the Supreme Court of the State of New York, New York County, or in the United States District Court for the Southern District of New York and agrees that service of process upon the Company mailed by certified mail or delivered by Federal Express via overnight delivery to the Company's address shall be deemed in every respect effective service of process upon the Company in any such suit, action or proceeding, and service of process upon an Underwriter mailed by certified mail or delivered by Federal Express via overnight delivery to the Underwriters' address shall be deemed in every respect effective service of process upon such Underwriter in any such suit, action or proceeding.

(g) *Judgment Currency*. If for the purposes of obtaining judgment in any court it is necessary to convert a sum due hereunder into any currency other than United States dollars, the parties hereto agree, to the fullest extent permitted by law, that the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Underwriters could purchase United States dollars with such other currency in The City of New York on the business day preceding that on which final judgment is given. The obligation of the Company with respect to any sum due from it to an Underwriter or any person controlling such Underwriter shall, notwithstanding any judgment in a currency other than United States dollars, not be discharged until the first business day following receipt by such Underwriter or controlling person of any sum in such other currency, and only to the extent that such Underwriter or controlling person may in accordance with normal banking procedures purchase United States dollars with such other currency. If the United States dollars so purchased are less than the sum originally due to such Underwriter or controlling person hereunder, the Company agrees as a separate obligation and notwithstanding any such judgment, to indemnify such Underwriter or controlling person against such loss. If the United States dollars so purchased are greater than the sum originally due to such Underwriter or controlling person hereunder, such Underwriter or controlling person agrees to pay to the Company an amount equal to the excess of the dollars so purchased over the sum originally due to such Underwriter or controlling person hereunder.

(h) *Counterparts.* This Agreement may be signed in two or more counterparts with the same effect as if the signatures thereto and hereto were upon the same instrument.

(i) *Survival of Provisions Upon Invalidity of Any Single Provision.* In case any provision in this Agreement shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

(j) *Waiver of Jury Trial.* The Company and each Underwriter each hereby irrevocably waive any right they may have to a trial by jury in respect of any claim based upon or arising out of this Agreement or the transactions contemplated hereby.

(k) *Titles and Subtitles.* The titles of the sections and subsections of this Agreement are for convenience and reference only and are not to be considered in construing this Agreement.

(l) *Entire Agreement.* This Agreement embodies the entire agreement and understanding between the parties hereto and supersedes all prior agreements and understandings relating to the subject matter hereof. This Agreement may not be amended or otherwise modified or any provision hereof waived except by an instrument in writing signed by the parties hereto.

[Signature page follows]

If the foregoing correctly sets forth your understanding, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement among us.

Very truly yours,

CHROMOCELL THERAPEUTICS CORPORATION

By: _____
Name:
Title:

Accepted by the Representatives, acting for themselves and as Representatives of the Underwriters named on Schedule A hereto, as of the date first written above:

MAXIM GROUP LLC

By: _____
Name: Clifford A. Teller
Title: Executive Managing Director,
Investment Banking

SCHEDULE A

Name of Underwriter	Number of Firm Shares Being Purchased	Number of Option Shares To Be Purchased if the Option is Fully Exercised
Maxim Group LLC		
Total		

ISSUER FREE WRITING PROSPECTUSES:

1. Number of Firm Shares: [●]

2. Number of Option Shares: [●]

3. Public Offering Price per Share: $[●]

4. Underwriting Discount per Share: $[●]

EXHIBIT A

LOCK-UP AGREEMENT

[●], 2023

Maxim Group LLC
405 Lexington Avenue
New York, NY 10174

Re: **Chromocell Therapeutics Corporation**

Ladies and Gentlemen:

As an inducement to Maxim Group LLC, as representative of the underwriters (the ***"Representative"***), to execute an underwriting agreement (the ***"Underwriting Agreement"***) providing for a public offering (the ***"Offering"***) of securities including the common stock, par value $0.0001 per share (the ***"Shares"***), of Chromocell Therapeutics Corporation, a Delaware corporation (the ***"Company"***), the undersigned hereby agrees that without, in each case, the prior written consent of the Representative, during the period specified in the second succeeding paragraph (the ***"Lock-Up Period"***), the undersigned will not (1) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, make any short sale or otherwise transfer or dispose of, directly or indirectly, any Shares or any securities convertible into, exercisable or exchangeable for or that represent the right to receive Shares (including, without limitation, Shares which may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations of the U.S. Securities and Exchange Commission (the "***SEC***") and securities which may be issued upon exercise of a stock option or warrant) whether now owned or hereafter acquired (the ***"Undersigned's Securities"***) or (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Undersigned's Securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Shares or such other securities, in cash or otherwise. The foregoing restriction is expressly agreed to preclude the undersigned from engaging in any hedging or other transaction which is designed to or which reasonably could be expected to lead to or result in a sale or disposition of the Undersigned's Securities even if such Undersigned's Securities would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include, without limitation, any short sale or any purchase, sale or grant of any right (including, without limitation, any put or call option) with respect to any of the Undersigned's Securities or with respect to any security that includes, relates to, or derives any significant part of its value from such Undersigned's Securities.

In addition, the undersigned agrees that, without the prior written consent of the Representative, it will not, during the Lock-Up Period, make any demand for or exercise any right with respect to, the registration of any Shares or any security convertible into or exercisable or exchangeable for Shares other than as contemplated in the registration statement relating to the Offering.

The Lock-Up Period shall mean the period commencing on the date of this Lock-Up Agreement and continue for one hundred and eighty (180) days and include the one hundred and eightieth (180^{th}) day after the date of the final prospectus supplement used to sell Shares in the Offering pursuant to the Underwriting Agreement.

Notwithstanding the foregoing, the undersigned may transfer the Undersigned's Securities (i) to a Permitted Transferee, (ii) as a *bona fide* gift or gifts or charitable contributions under Section 170 of the Internal Revenue Code of 1986, as amended, (iii) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned, (iv) by virtue of the laws of descent and distribution upon death of the undersigned, (v) pursuant to a qualified domestic relations order, (vi) upon the exercise or conversion of options, warrants or convertible securities outstanding, as in effect, on the date of the Underwriting Agreement, or (vii) upon the conversion of preferred stock issued at the close of the offering of the Shares as described in the Registration Statement. As used in this Agreement, the term "Permitted Transferee" shall mean, if the undersigned is a corporation, company, business trust, association, limited liability company, partnership, limited liability partnership or other entity (collectively, the "***Entities***" or, individually, the "***Entity***"), to any person or Entity which controls, is directly or indirectly controlled by, or is under common control with the undersigned and, if the undersigned is a partnership or limited liability company, to its partners, former partners or an affiliated partnership (or members, former members or an affiliated limited liability company) managed by the same manager or managing partner (or managing member, as the case may be) or management company, or managed by an entity controlling, controlled by, or under common control with, such manager or managing partner (or managing member) or management company in accordance with partnership (or membership) interests; *provided,* in the case of clauses (i) through (vii), that the transferee agrees in writing with the Representative to be bound by the terms of this Lock-Up Agreement, and *provided*, further, that in the case of clauses (i) and (iii) through (vii), that no filing by any party in any public report or filing with the SEC shall be required or shall be made voluntarily in connection with such transfer. For purposes of this Lock-Up Agreement, "immediate family" shall mean any relationship by blood, marriage or adoption, not more remote than first cousin. Furthermore, the undersigned may voluntarily forfeit Shares to pay any withholding tax owed by the undersigned on account of the vesting of such shares, which may be reported on a Form 4 as such.

In addition, the foregoing restrictions shall not apply to (i) the exercise of stock options granted pursuant to the Company's equity incentive plans; *provided*, that such restrictions shall apply to any of the Undersigned's Securities issued upon such exercise, or (ii) the establishment of any contract, instruction or plan (a ***"Plan"***) that satisfies all of the requirements of Rule 10b5-1(c)(1)(i)(B) under the Exchange Act; *provided*, that no sales of the Undersigned's Securities shall be made pursuant to such a Plan prior to the expiration of the Lock-Up Period, and such a Plan may only be established if no public announcement of the establishment or existence thereof and no filing with the SEC or other regulatory authority in respect thereof or transactions thereunder or contemplated thereby, by the undersigned, the Company or any other person, shall be required, and no such announcement or filing is made voluntarily, by the undersigned, the Company or any other person, prior to the expiration of the Lock-Up Period, other than a filing pursuant to Item 408 of Regulation S-K or on a Form 4 or Form 5, as applicable.

In furtherance of the foregoing, the Company and its transfer agent and registrar are hereby authorized to decline to make any transfer of Shares if such transfer would constitute a violation or breach of this Lock-Up Agreement.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Lock-Up Agreement and that, upon request, the undersigned will execute any additional documents necessary in connection with the enforcement hereof. All authority herein conferred or agreed to be conferred and any obligations of the undersigned shall be binding upon the successors, assigns, heirs or personal representatives of the undersigned.

The undersigned understands that the undersigned shall be released from all obligations under this Lock-Up Agreement if (i) the Company or the Representative informs the other that it does not intend to proceed with the Offering, (ii) the Underwriting Agreement does not become effective or if the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Shares to be sold thereunder, or (iii) the Offering is not completed by October 31, 2023.

The undersigned understands that the Representative is entering into the Underwriting Agreement and proceeding with the Offering in reliance upon this Lock-Up Agreement.

This Lock-Up Agreement shall be governed by, and construed in accordance with, the laws of the State of New York. Capitalized terms used herein, but not defined herein, shall have the meanings ascribed to them in the Underwriting Agreement.

Whether or not the Offering actually occurs depends on a number of factors, including market conditions. Any Offering will only be made pursuant to the Underwriting Agreement, the terms of which are subject to negotiation among the parties thereto.

[Signature page follows]

Very truly yours,

(Name - Please Print)

(Signature)

EXHIBIT B

FORM OF PRESS RELEASE

Chromocell Therapeutics Corporation

[Date]

Chromocell Therapeutics Corporation, a Delaware corporation (the "Company"), announced today that Maxim Group LLC, acting as representative for the underwriters and the lead book-running manager in the Company's initial public of offering of [___] of the Company's common stock, is [waiving][releasing] a lock-up restriction with respect to [___] of the Company's common stock held by [certain officers or directors][an officer or director] of the Company. The [waiver][release] will take effect on [___], and the shares of common stock may be sold on or after such date.

This press release is not an offer for sale of the securities in the United States or in any other jurisdiction where such offer is prohibited, and such securities may not be offered or sold in the United States absent registration or an exemption from registration under the United States Securities Act of 1933, as amended.

EXHIBIT 2.2

August 2, 2023

Christian Kopfli
44 Gramercy Park North
New York, NY

Chromocell Corporation
c/o Christian Kopfli
44 Gramercy Park North
New York, NY

Re: Amendment to Contribution Agreement

Ladies & Gentlemen:

Reference is made to that certain letter agreement between Christian Kopfli and Chromocell Therapeutics Corporation, dated July 28, 2023 (the "July Agreement").

The July Agreement provided in pertinent part that:

> In connection with the change in title, you, as a director of Chromocell Corporation ("Holdings"), shall execute an amendment to that certain Contribution Agreement, dated as of August 10, 2022, by and between the Company and Holdings (the "Original Contribution Agreement"), pursuant to which, upon close of the Company's initial public offering, (a) Holdings will reassume all direct liabilities previously assumed by the Company as specified in Section A.iii of the Original Contribution Agreement, (b) Holdings will waive the Company's obligations to make a cash payment to Holdings in respect of certain expenses as specified in Section A.iv of the Original Contribution Agreement, and (c) the Company will issue to Holdings a number of shares of Series C Convertible Redeemable Preferred Stock of the Company (the "Series C Preferred Stock") having an aggregate stated value of $2,584,034.33.

The purpose of this agreement is to amend the Original Contribution Agreement to incorporate the above referenced provisions. The Series C Preferred Stock shall be issued on terms consistent with those set forth in the July Agreement.

Very Truly Yours,

Chromocell Therapeutics Corporation

By: /s/ Francis Knuettel II
Francis Knuettel II

Its: Authorized Person

Acknowledged, Agreed, and Accepted:

Chromocell Corporation

By: /s/ Christian Kopfli
Christian Kopfli

Its: Authorized Person

CERTIFICATE OF DESIGNATIONS, PREFERENCES AND RIGHTS OF THE SERIES B CONVERTIBLE PREFERRED STOCK OF CHROMOCELL THERAPEUTICS CORPORATION

I, Todd Davis, hereby certify that I am the Chairman of the Board of Chromocell Therapeutics Corporation (the "**Company**"), a corporation incorporated and existing under the Delaware General Corporation Law (the "**DGCL**") and further do hereby certify:

That pursuant to the authority expressly conferred upon the Board of Directors of the Company (the "**Board**") by the Company's Certificate of Incorporation, as amended (the "**Certificate of Incorporation**"), the Board on September [●], 2023 adopted the following resolutions creating a series of shares of preferred stock designated as Series B Convertible Preferred Stock, none of which shares have been issued:

RESOLVED, that the Board designates the Series B Convertible Preferred Stock and the number of shares constituting such series, and fixes the rights, powers, preferences, privileges and restrictions relating to such series in addition to any set forth in the Certificate of Incorporation as follows:

TERMS OF SERIES B CONVERTIBLE PREFERRED STOCK

1. **Designation and Number of Shares**. There shall hereby be created and established a series of preferred stock of the Company designated as "Series B Convertible Preferred Stock" (the "**Preferred Shares**"). The authorized number of Preferred Shares shall be 5,000 shares (for a purchase price of $1,000, per Preferred Share). Each Preferred Share shall have a par value of $0.0001. Capitalized terms not defined herein shall have the meaning as set forth in Section 33.

2. **Ranking**. The Preferred Shares shall rank pari passu with the Series C Convertible Preferred Stock, $0.0001 par value per share, of the Company (the "**Series C Preferred Stock**") in respect of the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding up of the Company. Except to the extent that the holders of at least a majority of the outstanding Preferred Shares (the "**Required Holders**") expressly consent to the creation of Parity Stock (as defined below) other than the Series C Preferred Stock or Senior Preferred Stock (as defined below) in accordance with Section 15(l), all shares of capital stock of the Company (other than the Series C Preferred Stock) shall be junior in rank to all Preferred Shares with respect to the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding up of the Company (such junior stock is referred to herein collectively as "**Junior Stock**"). The rights of all such shares of capital stock of the Company shall be subject to the rights, powers, preferences and privileges of the Preferred Shares. In the event of the merger or consolidation of the Company with or into another corporation, the Preferred Shares shall maintain their relative rights, powers, designations, privileges and preferences provided for herein and no such merger or consolidation shall result inconsistent therewith.

3. **Dividends**. From and after the first date of issuance of any Preferred Shares (the "**Initial Issuance Date**"), each holder of a Preferred Share (each, a "**Holder**" and collectively, the "**Holders**") shall be entitled to receive dividends ("**Dividends**"), which Dividends shall be paid by the Company out of funds legally available therefor, payable, subject to the conditions and other terms hereof, in shares of Common Stock or cash on the Stated Value (as defined below) of such Preferred Share at the Dividend Rate (as defined below), which shall be cumulative and shall continue to accrue daily whether or not declared and whether or not in any fiscal year there shall be net profits or surplus available for the payment of dividends in such fiscal year. Dividends on the Preferred Shares shall commence accumulating on the Initial Issuance Date and shall be computed on the basis of a 360-day year and twelve 30-day months. Accrued and unpaid Dividends (inclusive of the Guaranteed Dividends (as defined below)) shall be payable either (x) in cash on any Company Optional Redemption Date or upon any required payment upon any Triggering Event or (y) with respect to such Dividends attributable to Preferred Shares subject to conversion hereunder, by way of inclusion of such Dividends in the Conversion Amount subject to conversion hereunder. From and after the occurrence and during the continuance of any Triggering Event, the Dividend Rate shall automatically be increased to eighteen percent (18.0%) per annum. In the event that such Triggering Event is subsequently cured, the adjustment referred to in the preceding sentence shall cease to be effective as of the calendar day immediately following the date of such cure; **provided**, that the Dividends as calculated and unpaid at such increased rate during the continuance of such Triggering Event shall continue to apply to the extent relating to the days after the occurrence of such Triggering Event through and including the date of such cure of such Triggering Event. With respect to any Preferred Shares being redeemed or converted prior to the one (1) year anniversary of the Initial Issuance Date, in addition to the Dividends accrued on such Preferred Shares in accordance with this Section 3, on the Company Optional Redemption Date or Conversion Date, as applicable, the Dividends that would have accrued with respect to the Preferred Shares being redeemed or converted for the period from the Company Optional Redemption Date or Conversion Date, as applicable, through and including the one (1) year anniversary of the Initial Issuance Date shall be guaranteed and accelerated and payable to the Holders in connection with the conversion or redemption of the Preferred Shares on the applicable Company Optional Redemption Date or Conversion Date (the "**Guaranteed Dividends**").

4. **Conversion**. At any time after the Initial Issuance Date, each Preferred Share shall be convertible into validly issued, fully paid and non-assessable shares of Common Stock (as defined below), on the terms and conditions set forth in this Section 4.

(a) **Holder's Conversion Right**. Subject to the provisions of Section 4(d), at any time or times on or after six months following the effective date of the registration statement of the Initial Public Offering, each Holder shall be entitled to convert any portion of the outstanding Preferred Shares held by such Holder into validly issued, fully paid and non-assessable shares of Common Stock in accordance with Section 4(c) at the Conversion Rate (as defined below). The Company shall not issue any fraction of a share of Common Stock upon any conversion. If the issuance would result in the issuance of a fraction of a share of Common Stock, the Company shall round such fraction of a share of Common Stock up to the nearest whole share. The Company shall pay any and all transfer, stamp, issuance and similar taxes, costs and expenses (including, without limitation, fees and expenses of the Transfer Agent (as defined below)) that may be payable with respect to the issuance and delivery of Common Stock upon conversion of any Conversion Amount.

(b) **Conversion Rate**. The number of shares of Common Stock issuable upon conversion of any Preferred Share pursuant to Section 4(a) shall be determined by dividing (x) the Conversion Amount of such Preferred Share by (y) the Conversion Price (the "**Conversion Rate**"):

(i) "**Conversion Amount**" means, with respect to each Preferred Share, as of the applicable date of determination, the sum of (without duplication) (1) the Stated Value thereof plus (2) the Additional Amount thereon.

(ii) "**Conversion Price**" means, with respect to each Preferred Share, as of any Conversion Date or other date of determination, 110% of theEffective Price Per Share of the Initial Public Offering. All such determinations to be appropriately adjusted for any share dividend, share split, share combination, reclassification or similar transaction that proportionately decreases or increases the Common Stock.

(c) **Mechanics of Conversion**. The conversion of each Preferred Share shall be conducted in the following manner:

(i) **Optional Conversion**. To convert a Preferred Share into shares of Common Stock on any date (a "**Conversion Date**"), a Holder shall deliver (whether via facsimile or electronic mail), for receipt on or prior to 11:59 p.m., New York time, on such date, an electronic copy of an executed notice of conversion of the share(s) of Preferred Shares subject to such conversion in the form attached hereto as **Exhibit I** (the "**Conversion Notice**") to the Company. If required by Section 4(c)(iii), within three (3) Trading Days following a conversion of any such Preferred Shares as aforesaid, such Holder, if such Holder is holding a physical certificate, shall surrender such certificate to a nationally recognized overnight delivery service for delivery to the Company the original certificates representing the Preferred Shares (the "**Preferred Share Certificates**") so converted as aforesaid (or an indemnification undertaking with respect to the Preferred Shares in the case of its loss, theft or destruction as contemplated by Section 20). On or before the first (1st) Trading Day following the date of receipt of a Conversion Notice, the Company shall transmit by facsimile or electronic mail an acknowledgment of confirmation, in the form attached hereto as **Exhibit II**, of receipt of such Conversion Notice to such Holder and the Company's transfer agent (the "**Transfer Agent**"), which confirmation shall constitute an instruction to the Transfer Agent to process such Conversion Notice in accordance with the terms herein. On or before the first (1^{st}) Trading Day following the date of receipt of a Conversion Notice (or such earlier date as required pursuant to the 1934 Act or other applicable law, rule or regulation for the settlement of a trade initiated on the applicable Conversion Date of such shares of Common Stock issuable pursuant to such Conversion Notice) (the "**Share Delivery Deadline**"), the Company shall (1) provided that the Transfer Agent is participating in the Depository Trust Company ("**DTC**") Fast Automated Securities Transfer Program, credit such aggregate number of shares of Common Stock to which such Holder shall be entitled to such Holder's or its designee's balance account with DTC through its Deposit/Withdrawal at Custodian system, or (2) if the Transfer Agent is not participating in the DTC Fast Automated Securities Transfer Program, issue and deliver (via reputable overnight courier) to the address as specified in such Conversion Notice, a certificate, registered in the name of such Holder or its designee, for the number of shares of Common Stock to which such Holder shall be entitled. If the number of Preferred Shares represented by the Preferred Share Certificate(s) submitted for conversion pursuant to Section 4(c)(iii) is greater than the number of Preferred Shares being converted, then the Company shall, as soon as practicable and in no event later than three (3) Trading Days after receipt of the Preferred Share Certificate(s) and at its own expense, issue and deliver to such Holder (or its designee) a new Preferred Share Certificate (in accordance with Section 20(d)) representing the number of Preferred Shares not converted. The Person or Persons entitled to receive the shares of Common Stock issuable upon a conversion of Preferred Shares shall be treated for all purposes as the record holder or holders of such shares of Common Stock on the Conversion Date.

(ii) **Company's Failure to Timely Convert**. If the Company shall fail, for any reason or for no reason, to issue to a Holder on or prior to the applicable Share Delivery Deadline, a certificate for the number of shares of Common Stock to which such Holder is entitled and register such shares of Common Stock on the Company's share register or to credit such Holder's or its designee's balance account with DTC for such number of shares of Common Stock to which such Holder is entitled upon such Holder's conversion of any Preferred Shares (as the case may be) (a "**Conversion Failure**"), then, in addition to all other remedies available to such Holder, such Holder, upon written notice to the Company, (x) may void its Conversion Notice with respect to, and retain or have returned (as the case may be) any Preferred Shares that have not been converted pursuant to such Holder's Conversion Notice, **provided**, that the voiding of a Conversion Notice shall not affect the Company's obligations to make any payments which have accrued prior to the date of such notice pursuant to the terms of this Certificate of Designations or otherwise and (y) the Company shall pay in cash to such Holder on each day after the Share Delivery Deadline that the issuance of such shares of Common Stock is not timely effected an amount equal to 2% of the product of (A) the aggregate number of shares of Common Stock not issued to such Holder on a timely basis and to which such Holder is entitled and (B) the Closing Sale Price of the Common Stock on the Trading Day immediately preceding the last possible date on which the Company could have issued such shares of Common Stock to such Holder without violating Section 4(c). In addition to the foregoing, if the Company shall fail, for any reason or for no reason, to issue to a Holder on or prior to the Share Delivery Deadline, a certificate to such Holder and register such shares of Common Stock on the Company's share register or credit such Holder's or its designee's balance account with DTC for the number of shares of Common Stock to which such Holder is entitled upon such Holder's conversion hereunder (as the case may be), and if on or after such Share Delivery Deadline such Holder (or any other Person in respect, or on behalf, of such Holder) purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by such Holder of all or any portion of the number of shares of Common Stock, or a sale of a number of shares of Common Stock equal to all or any portion of the number of shares of Common Stock, issuable upon such conversion that such Holder so anticipated receiving from the Company, then, in addition to all other remedies available to such Holder, the Company shall, within three (3) Business Days after receipt of such Holder's request and in such Holder's discretion, either: (I) pay cash to such Holder in an amount equal to such Holder's total purchase price (including brokerage commissions and other out-of-pocket expenses, if any) for the shares of Common Stock so purchased (including, without limitation, by any other Person in respect, or on behalf, of such Holder) (the "**Buy-In Price**"), at which point the Company's obligation to so issue and deliver such certificate or credit such Holder's balance account with DTC for the number of shares of Common Stock to which such Holder is entitled upon such Holder's conversion hereunder (as the case may be) (and to issue such shares of Common Stock) shall terminate, or (II) promptly honor its obligation to so issue and deliver to such Holder a certificate or certificates representing such shares of Common Stock or credit such Holder's balance account with DTC for the number of shares of Common Stock to which such Holder is entitled upon such Holder's conversion hereunder (as the case may be) and pay cash to such Holder in an amount equal to the excess (if any) of the Buy-In Price over the product of (x) such number of shares of Common Stock multiplied by (y) the lowest Closing Sale Price of the Common Stock on any Trading Day during the period commencing on the date of the applicable Conversion Notice and ending on the date of such issuance and payment under this clause (II).

(iii) **Registration; Book-Entry**. The Company shall maintain a register (the "**Register**") for the recordation of the names and addresses of the Holders of each Preferred Share and the Stated Value of the Preferred Shares (the "**Registered Preferred Shares**"). The entries in the Register shall be conclusive and binding for all purposes absent manifest error. The Company and each Holder of the Preferred Shares shall treat each Person whose name is recorded in the Register as the owner of a Preferred Share for all purposes (including, without limitation, the right to receive payments and Dividends hereunder) notwithstanding notice to the contrary. A Registered Preferred Share may be assigned, transferred or sold only by registration of such assignment or sale on the Register. Upon its receipt of a written request to assign, transfer or sell one or more Registered Preferred Shares by such Holder thereof, the Company shall record the information contained therein in the Register and issue one or more new Registered Preferred Shares in the same aggregate Stated Value as the Stated Value of the surrendered Registered Preferred Shares to the designated assignee or transferee pursuant to Section 20, **provided**, that, if the Company does not so record an assignment, transfer or sale (as the case may be) of such Registered Preferred Shares within two (2) Business Days of such a request, then the Register shall be automatically deemed updated to reflect such assignment, transfer or sale (as the case may be). Notwithstanding anything to the contrary set forth in this Section 4, following conversion of any Preferred Shares in accordance with the terms hereof, the applicable Holder shall not be required to physically surrender such Preferred Shares to the Company unless (A) the full or remaining number of Preferred Shares represented by the applicable Preferred Share Certificate are being converted (in which event such certificate(s) shall be delivered to the Company as contemplated by this Section 4(c)(iii)) or (B) such Holder has provided the Company with prior written notice (which notice may be included in a Conversion Notice) requesting reissuance of Preferred Shares upon physical surrender of the applicable Preferred Share Certificate. Each Holder and the Company shall maintain records showing the Stated Value and Dividends converted and/or paid (as the case may be) and the dates of such conversions and/or payments (as the case may be) or shall use such other method, reasonably satisfactory to such Holder and the Company, so as not to require physical surrender of a Preferred Share Certificate upon conversion. If the Company does not update the Register to record such Stated Value and Dividends converted and/or paid (as the case may be and the dates of such conversions and/or payments (as the case may be) within two (2) Business Days of such occurrence, then the Register shall be automatically deemed updated to reflect such occurrence. In the event of any dispute or discrepancy, such records of such Holder establishing the number of Preferred Shares to which the record holder is entitled shall be controlling and determinative in the absence of manifest error. A Holder and any transferee or assignee, by acceptance of a certificate, acknowledge and agree that, by reason of the provisions of this paragraph, following conversion of any Preferred Shares, the number of Preferred Shares represented by such certificate may be less than the number of Preferred Shares stated on the face thereof. Each Preferred Share Certificate shall bear the following legend:

> ANY TRANSFEREE OR ASSIGNEE OF THIS CERTIFICATE SHOULD CAREFULLY REVIEW THE TERMS OF THE CORPORATION'S CERTIFICATE OF DESIGNATIONS RELATING TO THE SHARES OF SERIES B CONVERTIBLE PREFERRED STOCK REPRESENTED BY THIS CERTIFICATE, INCLUDING SECTION 4(c)(iii) THEREOF. THE NUMBER OF SHARES OF SERIES B CONVERTIBLE PREFERRED STOCK REPRESENTED BY THIS CERTIFICATE MAY BE LESS THAN THE NUMBER OF SHARES OF SERIES B CONVERTIBLE PREFERRED STOCK STATED ON THE FACE HEREOF PURSUANT TO SECTION 4(c)(iii) OF THE CERTIFICATE OF DESIGNATIONS RELATING TO THE SHARES OF SERIES B CONVERTIBLE PREFERRED STOCK REPRESENTED BY THIS CERTIFICATE.

(iv) **Pro Rata Conversion; Disputes.** In the event that the Company receives a Conversion Notice from more than one Holder for the same Conversion Date and the Company can convert some, but not all, of such Preferred Shares submitted for conversion, the Company shall convert from each Holder electing to have Preferred Shares converted on such date a pro rata amount of such Holder's Preferred Shares submitted for conversion on such date based on the number of Preferred Shares submitted for conversion on such date by such Holder relative to the aggregate number of Preferred Shares submitted for conversion on such date. In the event of a dispute as to the number of shares of Common Stock issuable to a Holder in connection with a conversion of Preferred Shares, the Company shall issue to such Holder the number of shares of Common Stock not in dispute and resolve such dispute in accordance with Section 25.

(d) **Limitation on Conversion.**

(i) **Beneficial Ownership**. Notwithstanding anything to the contrary contained in this Certificate of Designations, the Preferred Shares held by a Holder shall not be convertible by such Holder, and the Company shall not effect any conversion of any Preferred Shares held by such Holder, to the extent (but only to the extent) that such Holder (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 (such Persons, "**Attribution Parties**")) would beneficially own in excess of 4.99% (the '**Maximum Percentage**") of the Common Stock. For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon conversion of the Preferred Shares with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which are issuable upon (i) conversion of the remaining, unconverted principal amount of the Preferred Shares beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. No prior inability of a Holder to convert Preferred Shares, or of the Company to issue shares of Common Stock to such Holder, pursuant to this Section 4(d) shall have any effect on the applicability of the provisions of this Section 4(d) with respect to any subsequent determination of convertibility or issuance (as the case may be). Except as set forth above, for purposes of this Section 4(d), beneficial ownership and all determinations and calculations (including, without limitation, with respect to calculations of percentage ownership) shall be determined in accordance with Section 13(d) of the 1934 Act and the rules and regulations promulgated thereunder. The provisions of this Section 4(d) shall be implemented in a manner otherwise than in strict conformity with the terms of this Section 4(d) to correct this Section 4(d) (or any portion hereof) which may be defective or inconsistent with the intended Maximum Percentage beneficial ownership limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such Maximum Percentage limitation. The limitations contained in this Section 4(d) shall apply to a successor holder of Preferred Shares. The holders of Common Stock shall be third party beneficiaries of this Section 4(d) and the Company may not waive this Section 4(d) without the consent of holders of a majority of its Common Stock. For any reason at any time, upon the written or oral request of a Holder, the Company shall within one (1) Business Day confirm orally and in writing to such Holder the number of shares of Common Stock then outstanding. By written notice to the Company, any Holder may increase or decrease the Maximum Percentage to any other percentage not in excess of 9.99% specified in such notice; **provided**, that (i) any such increase will not be effective until the 61st day after such notice is delivered to the Company, and (ii) any such increase or decrease will apply only to such Holder sending such notice and not to any other Holder.

(ii) **Principal Market Regulation**. The Company shall not issue any shares of Common Stock upon conversion of any Preferred Shares or otherwise pursuant to the terms of this Certificate of Designations if the issuance of such shares of Common Stock would exceed the aggregate number of shares of Common Stock which the Company may issue upon conversion of the Preferred Shares or otherwise pursuant to the terms of this Certificate of Designations without breaching the Company's obligations under the rules or regulations of the Principal Market (the number of shares which may be issued without violating such rules and regulations, the "**Exchange Cap**"), except that such limitation shall not apply in the event that the Company (A) obtains the approval of its stockholders as required by the applicable rules of the Principal Market for issuances of shares of Common Stock in excess of such amount or (B) obtains a written opinion from outside counsel to the Company that such approval is not required, which opinion shall be reasonably satisfactory to the Required Holders. Until such approval or such written opinion is obtained, no Purchaser (as defined in the Securities Purchase Agreement) shall be issued in the aggregate, upon conversion of any Preferred Shares or otherwise pursuant to the terms of this Certificate of Designations, shares of Common Stock in an amount greater than the product of (i) the Exchange Cap as of the Initial Issuance Date multiplied by (ii) the quotient of (1) the aggregate original Stated Value of the Preferred Shares issued to such Purchaser pursuant to the Securities Purchase Agreement on the Closing Date divided by (2) the aggregate original Stated Value of the Preferred Shares issued to the Purchasers pursuant to the Securities Purchase Agreement on the Closing Date (with respect to each Purchaser, the "**Exchange Cap Allocation**"). In the event that any Purchaser shall sell or otherwise transfer any of such Purchaser's Preferred Shares, the transferee shall be allocated a pro rata portion of such Purchaser's Exchange Cap Allocation with respect to such portion of such Preferred Shares so transferred, and the restrictions of the prior sentence shall apply to such transferee with respect to the portion of the Exchange Cap Allocation so allocated to such transferee. Upon conversion in full of a holder's Preferred Shares, the difference (if any) between such holder's Exchange Cap Allocation and the number of shares of Common Stock actually issued to such holder upon such holder's conversion in full of such Preferred Shares shall be allocated to the respective Exchange Cap Allocations of the remaining holders of Preferred Shares on a pro rata basis in proportion to the shares of Common Stock underlying the Preferred Shares then held by each such holder of Preferred Shares. In the event that the Company is prohibited from issuing any shares of Common Stock pursuant to this Section 4(d)(ii) (the "**Exchange Cap Shares**") to a Holder, the Company shall pay cash to such Holder in exchange for the redemption of such number of Preferred Shares held by the Holder that are not convertible into such Exchange Cap Shares at a price equal to the sum of (i) the product of (x) such number of Exchange Cap Shares and (y) the Closing Sale Price on the Trading Day immediately preceding the date such Holder delivers the applicable Conversion Notice with respect to such Exchange Cap Shares to the Company and (ii) to the extent such Holder purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by such Holder of Exchange Cap Shares, brokerage commissions, if any, of such Holder incurred in connection therewith.

5. **Triggering Event**.

(a) Each of the following events shall constitute a "**Triggering Event**":

(i) [reserved];

(ii) the suspension from trading or failure of the Common Stock to be trading or listed (as applicable) on an Eligible Market for a period of five (5) consecutive Trading Days;

(iii) the Company's written notice to any holder of the Preferred Shares, including, without limitation, by way of public announcement or through any of its agents, at any time, of its intention not to comply, as required, with a request for conversion of any Preferred Shares into shares of Common Stock that is requested in accordance with the provisions of this Certificate of Designations, other than pursuant to Section 4(d);

(iv) at any time following the tenth (10th) consecutive day that a Holder's Authorized Share Allocation (as defined in Section 11(a)) is less than 100% of the number of shares of Common Stock that such Holder would be entitled to receive upon a conversion in full of the Preferred Shares held by such Holder (without regard to any limitations on conversion set forth in this Certificate of Designations);

(v) the Company's Board of Directors fails to declare any Dividend to be paid in accordance with Section 3;

(vi) the Company's failure to pay to any Holder any Dividend (whether or not declared by the Board of Directors) or any other amount when and as due under this Certificate of Designations (including, without limitation, the Company's failure to pay any redemption payments or amounts hereunder), the Securities Purchase Agreement or any other Transaction Document or any other agreement, document, certificate or other instrument delivered in connection with the transactions contemplated hereby and thereby (in each case, as permitted pursuant to the DGCL), except, in the case of a failure to pay Dividends when and as due, only if such failure remains uncured for a period of at least three (3) Trading Days;

(vii) the Company, on three or more occasions, either (A) fails to cure a Conversion Failure by delivery of the required number of shares of Common Stock within five (5) Trading Days after the applicable Conversion Date or (B) fails to remove any restrictive legend on any certificate or any shares of Common Stock issued to such Holder upon conversion of any Preferred Shares acquired by such Holder under the Securities Purchase Agreement, unless otherwise then prohibited by applicable federal securities laws, and any such failure remains uncured for at least five (5) Trading Days;

(viii) the occurrence of any default under, redemption of or acceleration prior to maturity of at least an aggregate of $250,000 of Indebtedness (as defined in the Securities Purchase Agreement) of the Company or any of its Subsidiaries;

(ix) bankruptcy, insolvency, reorganization or liquidation proceedings or other proceedings for the relief of debtors shall be instituted by or against the Company or any Subsidiary and, if instituted against the Company or any Subsidiary by a third party, shall not be dismissed within thirty (30) days of their initiation;

(x) the commencement by the Company or any Subsidiary of a voluntary case or proceeding under any applicable federal, state or foreign bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated a bankrupt or insolvent, or the consent by it to the entry of a decree, order, judgment or other similar document in respect of the Company or any Subsidiary in an involuntary case or proceeding under any applicable federal, state or foreign bankruptcy, insolvency, reorganization or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against it, or the filing by it of a petition or answer or consent seeking reorganization or relief under any applicable federal, state or foreign law, or the consent by it to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or any Subsidiary or of any substantial part of its property, or the making by it of an assignment for the benefit of creditors, or the execution of a composition of debts, or the occurrence of any other similar federal, state or foreign proceeding, or the admission by it in writing of its inability to pay its debts generally as they become due, the taking of corporate action by the Company or any Subsidiary in furtherance of any such action or the taking of any action by any Person to commence a Uniform Commercial Code foreclosure sale or any other similar action under federal, state or foreign law;

(xi) the entry by a court of (i) a decree, order, judgment or other similar document in respect of the Company or any Subsidiary of a voluntary or involuntary case or proceeding under any applicable federal, state or foreign bankruptcy, insolvency, reorganization or other similar law or (ii) a decree, order, judgment or other similar document adjudging the Company or any Subsidiary as bankrupt or insolvent, or approving as properly filed a petition seeking liquidation, reorganization, arrangement, adjustment or composition of or in respect of the Company or any Subsidiary under any applicable federal, state or foreign law or (iii) a decree, order, judgment or other similar document appointing a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or any Subsidiary or of any substantial part of its property, or ordering the winding up or liquidation of its affairs, and the continuance of any such decree, order, judgment or other similar document or any such other decree, order, judgment or other similar document unstayed and in effect for a period of thirty (30) consecutive days;

(xii) a final judgment or judgments for the payment of money aggregating in excess of $250,000 are rendered against the Company and/or any of its Subsidiaries and which judgments are not, within thirty (30) days after the entry thereof, bonded, discharged, settled or stayed pending appeal, or are not discharged within thirty (30) days after the expiration of such stay; **provided**, that any judgment which is covered by insurance or an indemnity from a credit worthy party shall not be included in calculating the $250,000 amount set forth above so long as the Company provides each Holder a written statement from such insurer or indemnity provider (which written statement shall be reasonably satisfactory to each Holder) to the effect that such judgment is covered by insurance or an indemnity and the Company or such Subsidiary (as the case may be) will receive the proceeds of such insurance or indemnity within thirty (30) days of the issuance of such judgment;

(xiii) the Company and/or any Subsidiary, individually or in the aggregate fails to pay, when due, or within any applicable grace period, any payment with respect to any Indebtedness in excess of $250,000 due to any third party (other than, with respect to unsecured Indebtedness only, payments contested by the Company and/or such Subsidiary (as the case may be) in good faith by proper proceedings and with respect to which adequate reserves have been set aside for the payment thereof in accordance with GAAP) or is otherwise in breach or violation of any agreement for monies owed or owing in an amount in excess of $250,000, which breach or violation causes the other party thereto to declare a default or otherwise accelerate amounts due thereunder;

(xiv) other than as specifically set forth in another clause of this Section 5, the Company or any Subsidiary breaches any representation or warranty in any material respect (other than representations or warranties subject to material adverse effect or materiality, which may not be breached in any respect) or any covenant or other term or condition of any Transaction Document, except, in the case of a breach of a covenant or other term or condition that is curable, only if such breach remains uncured for a period of five (5) consecutive Trading Days, unless such breach does not have a Material Adverse Effect (as defined in the Securities Purchase Agreement);

(xv) a false or inaccurate certification (including a false or inaccurate deemed certification) by the Company that either (A) the Equity Conditions are satisfied, (B) there has been no Equity Conditions Failure, or (C) as to whether any Triggering Event has occurred, and such Holder suffers economic damage thereby;

(xvi) any breach or failure in any respect by the Company or any Subsidiary to comply with any provision of Section 15, unless such breach does not have a Material Adverse Effect;

(xvii) any Material Adverse Effect occurs;

(xviii) (A) the Common Stock cannot be issued and transferred electronically to third parties via DTC through its Deposit/Withdrawal at Custodian system or (B) the Company has received notice from DTC to the effect that a suspension of, or restriction on, accepting additional deposits of the Common Stock, electronic trading or book-entry services by DTC with respect to the Common Stock is being imposed or is contemplated;

(xix) failure to have a registration statement covering the resale of shares of Common Stock upon conversion of the Preferred Shares declared effective and remain effective in accordance within the deadline prescribed in, and otherwise accordance with the terms of, the Securities Purchase Agreement; or

(xx) at any time from and the Initial Public Offering, the Company fails to timely comply with its reporting obligations under the 1934 Act.

(b) **Notice of a Triggering Event**. Upon the occurrence of a Triggering Event with respect to the Preferred Shares, the Company shall within one (1) Business Day deliver written notice thereof via facsimile or electronic mail and overnight courier (with next day delivery specified) to each Holder.

6. **Rights Upon Fundamental Transactions**.

(a) **Assumption**. The Company shall use its commercially reasonable efforts to not enter into or be party to a Fundamental Transaction unless (i) the Successor Entity assumes in writing all of the obligations of the Company under this Certificate of Designations and the other Transaction Documents in accordance with the provisions of this Section 6(a) pursuant to written agreements in form and substance satisfactory to the Required Holders and approved by the Required Holders prior to such Fundamental Transaction, including agreements to deliver to each holder of Preferred Shares in exchange for such Preferred Shares a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Certificate of Designations, including, without limitation, having a stated value and dividend rate equal to the stated value and dividend rate of the Preferred Shares held by the Holders and having similar ranking to the Preferred Shares, and satisfactory to the Required Holders and (ii) the Successor Entity (including its Parent Entity) is a publicly traded corporation whose shares of common stock are quoted on or listed for trading on an Eligible Market. Upon the occurrence of any Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Certificate of Designations and the other Transaction Documents referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Certificate of Designations and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Company herein and therein. In addition to the foregoing, upon consummation of a Fundamental Transaction, the Successor Entity shall deliver to each Holder confirmation that there shall be issued upon conversion or redemption of the Preferred Shares at any time after the consummation of such Fundamental Transaction, in lieu of the shares of Common Stock (or other securities, cash, assets or other property (except such items still issuable under Sections 7(a) and 17, which shall continue to be receivable thereafter)) issuable upon the conversion or redemption of the Preferred Shares prior to such Fundamental Transaction, such shares of the publicly traded common stock (or their equivalent) of the Successor Entity (including its Parent Entity) which each Holder would have been entitled to receive upon the happening of such Fundamental Transaction had all the Preferred Shares held by each Holder been converted immediately prior to such Fundamental Transaction (without regard to any limitations on the conversion of the Preferred Shares contained in this Certificate of Designations), as adjusted in accordance with the provisions of this Certificate of Designations. Notwithstanding the foregoing, such Holder may elect, at its sole option, by delivery of written notice to the Company to waive this Section 6(a) to permit the Fundamental Transaction without the assumption of the Preferred Shares. The provisions of this Section 6 shall apply similarly and equally to successive Fundamental Transactions and shall be applied without regard to any limitations on the conversion or redemption of the Preferred Shares.

(b) **Change of Control Redemption Right**. No sooner than twenty (20) Trading Days nor later than ten (10) Trading Days prior to the consummation of a Change of Control (the "**Change of Control Date**"), but not prior to the public announcement of such Change of Control, the Company shall deliver written notice thereof via facsimile and overnight courier to each Holder (a "**Change of Control Notice**"). At any time during the period beginning after a Holder's receipt of a Change of Control Notice or such Holder becoming aware of a Change of Control if a Change of Control Notice is not delivered to such Holder in accordance with the immediately preceding sentence (as applicable) and ending on the later of twenty (20) Trading Days after (A) consummation of such Change of Control or (B) the date of receipt of such Change of Control Notice, such Holder may require the Company to redeem all or any portion of such Holder's Preferred Shares by delivering written notice thereof ("**Change of Control Redemption Notice**") to the Company, which Change of Control Redemption Notice shall indicate the number of Preferred Shares such Holder is electing to have the Company redeem. Each Preferred Share subject to redemption pursuant to this Section 6(b) shall be redeemed by the Company in cash at a price equal to the product of the Change of Control Redemption Premium multiplied by the Stated Value (the "Change of Control Redemption Price"). Redemptions required by this Section 6(b) shall have priority to payments to all other stockholders of the Company in connection with such Change of Control. To the extent redemptions required by this Section 6(b) are deemed or determined by a court of competent jurisdiction to be prepayments of the Preferred Shares by the Company, such redemptions shall be deemed to be voluntary prepayments. Notwithstanding anything to the contrary in this Section 6(b), but subject to Section 4(d), until the applicable Change of Control Redemption Price is paid in full to the applicable Holder, the Preferred Shares submitted by such Holder for redemption under this Section 6(b) may be converted, in whole or in part, by such Holder into Common Stock pursuant to Section 4 or in the event the Conversion Date is after the consummation of such Change of Control, stock or equity interests of the Successor Entity substantially equivalent to the Company's shares of Common Stock pursuant to Section 4. In the event of the Company's redemption of any of the Preferred Shares under this Section 6(b), such Holder's damages would be uncertain and difficult to estimate because of the parties' inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for a Holder. Accordingly, any redemption premium due under this Section 6(b) is intended by the parties to be, and shall be deemed, a reasonable estimate of such Holder's actual loss of its investment opportunity and not as a penalty. The Company shall make payment of the applicable Change of Control Redemption Price concurrently with the consummation of such Change of Control if a Change of Control Redemption Notice is received prior to the consummation of such Change of Control and within two (2) Trading Days after the Company's receipt of such notice otherwise.

7 . **Rights Upon Issuance of Purchase Rights, Dilutive Issuances, and Other Corporate Events** From and after the date hereof and until such time as all Preferred Shares shall be issued and there shall be no Preferred Share remaining outstanding and, to the extent application, except with respect to an Exempt Issuance:

(a) **Purchase Rights**. If at any time the Company grants, issues or sells any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to all or substantially all of the record holders of any class of Common Stock (the "**Purchase Rights**"), then each Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which such Holder could have acquired if such Holder had held the number of shares of Common Stock acquirable upon complete conversion of all the Preferred Shares (without taking into account any limitations or restrictions on the convertibility of the Preferred Shares) held by such Holder immediately prior to the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (**provided**, that, to the extent that such Holder's right to participate in any such Purchase Right would result in such Holder exceeding the Maximum Percentage, then such Holder shall not be entitled to participate in such Purchase Right to such extent (and shall not be entitled to beneficial ownership of such shares of Common Stock as a result of such Purchase Right (and beneficial ownership) to such extent) and such Purchase Right to such extent shall be held in abeyance for such Holder until such time or times, if ever, as its right thereto would not result in such Holder exceeding the Maximum Percentage), at which time or times such Holder shall be granted such right (and any Purchase Right granted, issued or sold on such initial Purchase Right or on any subsequent Purchase Right to be held similarly in abeyance) to the same extent as if there had been no such limitation).

(b) **Other Corporate Events**. In addition to and not in substitution for any other rights hereunder, prior to the consummation of any Fundamental Transaction pursuant to which holders of shares of Common Stock are entitled to receive securities or other assets with respect to or in exchange for shares of Common Stock (a "**Corporate Event**"), the Company shall make appropriate provision to insure that each Holder will thereafter have the right to receive upon a conversion of all the Preferred Shares held by such Holder (i) in addition to the shares of Common Stock receivable upon such conversion, such securities or other assets to which such Holder would have been entitled with respect to such shares of Common Stock had such shares of Common Stock been held by such Holder upon the consummation of such Corporate Event (without taking into account any limitations or restrictions on the convertibility of the Preferred Shares contained in this Certificate of Designations) or (ii) in lieu of the shares of Common Stock otherwise receivable upon such conversion, such securities or other assets received by the holders of shares of Common Stock in connection with the consummation of such Corporate Event in such amounts as such Holder would have been entitled to receive had the Preferred Shares held by such Holder initially been issued with conversion rights for the form of such consideration (as opposed to shares of Common Stock) at a conversion rate for such consideration commensurate with the Conversion Rate. Provision made pursuant the proceeding sentence shall be in a form and substance satisfactory to the Required Holders. The provisions of this Section 7 shall apply similarly and equally to successive Corporate Events and shall be applied without regard to any limitations on the conversion or redemption of the Preferred Shares contained in this Certificate of Designations.

(c) **[Reserved]**.

8. **[Reserved]**.

9 . **Company Optional Redemption**. At any time no Equity Conditions Failure exists, the Company shall have the right to redeem all or any portion of the Preferred Shares then outstanding (the "**Company Optional Redemption Amount**") on the Company Optional Redemption Date (each as defined below) (a "**Company Optional Redemption**"). The Preferred Shares subject to redemption pursuant to this Section 9 shall be redeemed by the Company in cash at a price (the "**Company Optional Redemption Price**") (i) if redeemed on or prior to the 180th day of the Initial Issuance Date, equal to 107.5% of the Stated Value plus the Additional Amount as of the Company Optional Redemption Date and (ii) if redeemed on or after the 181st day of the Initial Issuance Date, equal to 110% of the Stated Value plus the Additional Amount as of the Company Optional Redemption Date. The Company may exercise its right to require redemption under this Section 9 by delivering a written notice thereof by facsimile or electronic mail and overnight courier to all, but not less than all, of the Holders (the "**Company Optional Redemption Notice**" and the date all of the Holders received such notice is referred to as the "**Company Optional Redemption Notice Date**"). Any Company Optional Redemption Notice shall be irrevocable. The Company Optional Redemption Notice shall (x) state the date on which the Company Optional Redemption shall occur (the "**Company Optional Redemption Date**") which date shall not be less than thirty (30) Trading Days nor more than one hundred (100) Trading Days following the Company Optional Redemption Notice Date, (y) certify that there has been no Equity Conditions Failure and (z) state the aggregate Conversion Amount of the Preferred Shares which is being redeemed in such Company Optional Redemption from such Holder and all of the other Holders of the Preferred Shares (which shall be allocated, pro rata, to each Holder) pursuant to this Section 9 on the Company Optional Redemption Date. Notwithstanding anything herein to the contrary, (i) if no Equity Conditions Failure has occurred as of the Company Optional Redemption Notice Date but an Equity Conditions Failure occurs at any time prior to the Company Optional Redemption Date, (A) the Company shall provide each Holder a subsequent notice to that effect and (B) unless such Holder waives the Equity Conditions Failure, the Company Optional Redemption with respect to such Holder shall be cancelled and the applicable Company Optional Redemption Notice shall be null and void and (ii) at any time prior to the date the Company Optional Redemption Price is paid, in full, the Company Optional Redemption Amount may be converted, in whole or in part, by any Holder into shares of Common Stock pursuant to Section 4. All Conversion Amounts converted by a Holder after the Company Optional Redemption Notice Date shall reduce the Company Optional Redemption Amount of the Preferred Shares of such Holder required to be redeemed on the Company Optional Redemption Date. In the event of the Company's redemption of any of the Preferred Shares under this Section 9, a Holder's damages would be uncertain and difficult to estimate because of the parties' inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for such Holder. Accordingly, any redemption premium due under this Section 9 is intended by the parties to be, and shall be deemed, a reasonable estimate of such Holder's actual loss of its investment opportunity and not as a penalty. For the avoidance of doubt, the Company shall have no right to effect a Company Optional Redemption if any Triggering Event has occurred and continuing, but any Triggering Event shall have no effect upon any Holder's right to convert Preferred Shares in its discretion.

10. **Noncircumvention**. The Company hereby covenants and agrees that the Company will not, by amendment of its Certificate of Incorporation (as defined in the Securities Purchase Agreement), Bylaws (as defined in the Securities Purchase Agreement) or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, dissolution, issue or sale of securities, or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Certificate of Designations, and will at all times in good faith carry out all the provisions of this Certificate of Designations and take all action as may be required to protect the rights of the Holders. Without limiting the generality of the foregoing or any other provision of this Certificate of Designations or the other Transaction Documents, the Company (a) shall not increase the par value of any shares of Common Stock receivable upon the conversion of any Preferred Shares above the Conversion Price then in effect, (b) shall take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and non-assessable shares of Common Stock upon the conversion of Preferred Shares and (c) shall, so long as any Preferred Shares are outstanding, take all action necessary to reserve and keep available out of its authorized and unissued shares of Common Stock, solely for the purpose of effecting the conversion of the Preferred Shares, the maximum number of shares of Common Stock as shall from time to time be necessary to effect the conversion of the Preferred Shares then outstanding (without regard to any limitations on conversion contained herein). Notwithstanding anything herein to the contrary, if after the seventy-five (75) calendar day anniversary of the Initial Issuance Date, each Holder is not permitted to convert such Holder's Preferred Shares in full for any reason (other than pursuant to restrictions set forth in Section 4(d)(i)), the Company shall use its best efforts to promptly remedy such failure, including, without limitation, obtaining such consents or approvals as necessary to effect such conversion into shares of Common Stock.

11. **Authorized Shares**.

(a) **Reservation**. So long as any of the Preferred Shares are outstanding, the Company shall take all action necessary to reserve and keep available out of its authorized and unissued Common Stock, solely for the purpose of effecting the conversion of the Preferred Shares, a number of shares of Common Stock, as of any date of determination, for each of the Preferred Shares in accordance with the following formula:

$$\frac{P}{(T \times B)} \times [2.5] = \text{Share Reserve}$$

P = The aggregate Purchase Price (as defined the Securities Purchase Agreement) of the Preferred Shares issued on or prior to such date of determination;

T = The applicable Conversion Price as of such date of determination;

B = [1.00];

provided, that the Share Reserve shall in no event be less than [100]% of the number of shares of Common Stock as shall from time to time be necessary to effect the conversion of all of the Preferred Shares then outstanding (without regard to any limitations on conversions) (the "**Required Reserve Amount**"). The Required Reserve Amount (including, without limitation, each increase in the number of shares so reserved) shall be allocated pro rata among the Holders based on the number of the Preferred Shares held by each Holder on the Initial Issuance Date or increase in the number of reserved shares, as the case may be (the "**Authorized Share Allocation**"). In the event that a Holder shall sell or otherwise transfer any of such Holder's Preferred Shares, each transferee shall be allocated a pro rata portion of such Holder's Authorized Share Allocation. Any shares of Common Stock reserved and allocated to any Person which ceases to hold any Preferred Shares shall be allocated to the remaining Holders of Preferred Shares, pro rata based on the number of the Preferred Shares then held by the Holders.

(b) **Insufficient Authorized Shares.** If, notwithstanding Section 11(a) and not in limitation thereof, while any of the Preferred Shares remain outstanding the Company does not have a sufficient number of authorized and unreserved shares of Common Stock to satisfy its obligation to reserve for issuance upon conversion of the Preferred Shares at least a number of shares of Common Stock equal to the Required Reserve Amount (an "**Authorized Share Failure**"), then the Company shall immediately take all action necessary to increase the Company's authorized shares of Common Stock to an amount sufficient to allow the Company to reserve the Required Reserve Amount for the Preferred Shares then outstanding. Without limiting the generality of the foregoing sentence, as soon as practicable after the date of the occurrence of an Authorized Share Failure, but in no event later than [seventy five (75)] days after the occurrence of such Authorized Share Failure, the Company shall hold a meeting of its stockholders for the approval of an increase in the number of authorized shares of Common Stock. In connection with such meeting, the Company shall provide each stockholder with a proxy statement and shall use its reasonable best efforts to solicit its stockholders' approval of such increase in authorized shares of Common Stock and to cause its board of directors to recommend to the stockholders that they approve such proposal. In the event that the Company is prohibited from issuing shares of Common Stock to a Holder upon any conversion due to the failure by the Company to have sufficient shares of Common Stock available out of the authorized but unissued shares of Common Stock (such unavailable number of shares of Common Stock, the "**Authorized Failure Shares**"), in lieu of delivering such Authorized Failure Shares to such Holder, the Company shall pay cash in exchange for the redemption of such portion of the Conversion Amount convertible into such Authorized Failure Shares at a price equal to the sum of (i) the product of (x) such number of Authorized Failure Shares and (y) the greatest Closing Sale Price of the Common Stock on any Trading Day during the period commencing on the date such Holder delivers the applicable Conversion Notice with respect to such Authorized Failure Shares to the Company and ending on the date of such issuance and payment under this Section 11(a); and (ii) to the extent such Holder purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by such Holder of Authorized Failure Shares, any brokerage commissions, if any, of such Holder incurred in connection therewith. Nothing contained in Section 11(a) or this Section 11(b) shall limit any obligations of the Company under any provision of the Securities Purchase Agreement.

12. **[Reserved].**

13. **[Reserved]**.

1 4 . **Voting Rights**. Each holder of Preferred Shares shall be entitled to vote with holders of outstanding shares of Common Stock, voting together as a single class, with respect to any and all matters presented to the stockholders of the Company for their action or consideration (whether at a meeting of stockholders of the Company, by written action of stockholders in lieu of a meeting or otherwise), except as provided by law. In any such vote, each Preferred Share shall be entitled to a number of votes equal to the number of shares of Common Stock into which the Preferred Share is convertible pursuant to Section 4(b), as of the record date for such vote or written consent or, if there is no specified record date, as of the date of such vote or written consent; provided, however, that the Conversion Price specified in Section 4(b)(ii) shall be equal to $4.50 (as adjusted for any stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions). Holders of Preferred Shares shall be entitled to notice of all stockholder meetings (or requests for written consent) in accordance with the Company's bylaws. Notwithstanding anything herein to the contrary, no holder shall be permitted to exercise voting rights with respect to any Preferred Shares if the exercise of such voting rights would exceed the Maximum Percentage.

15. **Covenants**. Without the prior written consent of the Required Holders, voting separately as a single class with one vote per Preferred Share, in person or by proxy, either in writing without a meeting or at an annual or a special meeting of such holders, and any other applicable stockholder approval requirements required by law, the Company shall not take, and shall cause its Subsidiaries not to take or consummate, any of the actions or transactions:

(a) **Incurrence of Indebtedness**. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, incur or guarantee, assume or suffer to exist any Indebtedness (other than Permitted Debt) and shall not modify, waive or replace any Permitted Debt.

(b) **Existence of Liens**. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, allow or suffer to exist any Lien upon or in any property or assets (including accounts and contract rights) owned by the Company or any of its Subsidiaries other than Permitted Liens.

(c) **Restricted Payments**. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, redeem, defease, repurchase, repay or make any payments in respect of, by the payment of cash or cash equivalents (in whole or in part, whether by way of open market purchases, tender offers, private transactions or otherwise), all or any portion of any Indebtedness (other than any amounts payable pursuant to this Certificate of Designations) whether by way of payment in respect of principal of (or premium, if any) or interest on, such Indebtedness if at the time such payment is due or is otherwise made or, after giving effect to such payment, (i) an event constituting a Triggering Event has occurred and is continuing or (ii) an event that with the passage of time and without being cured would constitute a Triggering Event has occurred and is continuing.

(d) **Restriction on Asset Transfers**. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, enter into any Asset Transfer with respect to any assets or rights of the Company or any Subsidiary owned or hereafter acquired to any Person(s) (including, without limitation, to any foreign Subsidiary), other than (i) Asset Transfers in the ordinary course of business consistent with its past practice and (ii) sales of inventory and product in the ordinary course of business.

(e) **[Reserved]**.

(f) **Change in Nature of Business**. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, engage in any material line of business substantially different from those lines of business conducted by or publicly contemplated to be conducted by the Company and each of its Subsidiaries on the Subscription Date or any business substantially related or incidental thereto. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, modify its or their corporate structure or purpose.

(g) **Preservation of Existence, Etc**. The Company shall not fail to maintain and preserve, and shall not fail to cause each of its Subsidiaries to maintain and preserve, its existence, rights and privileges, and the Company shall not fail to become or remain, and shall not fail to cause each of its Subsidiaries to become or remain, duly qualified and in good standing in each jurisdiction in which the character of the properties owned or leased by it or in which the transaction of its business makes such qualification necessary.

(h) **Maintenance of Properties, Etc**. The Company shall not fail to maintain and preserve, and shall not fail to cause each of its Subsidiaries to maintain and preserve, all of its properties which are necessary or useful in the proper conduct of its business in good working order and condition, ordinary wear and tear excepted, and the Company shall not fail to comply, and shall not fail to cause each of its Subsidiaries to comply, at all times with the provisions of all leases to which it is a party as lessee or under which it occupies property, so as to prevent any loss or forfeiture thereof or thereunder.

(i) **Maintenance of Intellectual Property**. The Company will not fail to, and will not fail to cause each of its Subsidiaries to, take all action necessary or advisable to maintain all of the Intellectual Property Rights of the Company and/or any of its Subsidiaries that are necessary or material to the conduct of its business in full force and effect.

(j) **Maintenance of Insurance**. The Company shall not fail to maintain, and shall not fail to cause each of its Subsidiaries to maintain, insurance with responsible and reputable insurance companies or associations (including, without limitation, comprehensive general liability, hazard, rent and business interruption insurance) with respect to its properties (including all real properties leased or owned by it) and business, in such amounts and covering such risks as is required by any governmental authority having jurisdiction with respect thereto or as is carried generally in accordance with sound business practice by companies in similar businesses similarly situated.

(k) **[Reserved]**.

(l) **Restricted Issuances**. The Company shall not, directly or indirectly, (i) issue any Preferred Shares (other than as contemplated by the Securities Purchase Agreement and this Certificate of Designations); (ii) reprice, repay or repurchase the Series C Preferred Stock of the Company; (iii) alter or change adversely the powers, preferences or rights given to the Preferred Shares or alter or amend the Certificate of Designation for the Preferred Shares; (iv) increase or decrease (other than by conversion) the authorized number of Preferred Share; (v) issue any additional preferred equity; or (vi) declare or pay any dividends on the Company's Common Stock or Series C Preferred Stock.

(m) **Merger**. The Company shall not, directly or indirectly, enter into any reorganization consolidation, merger, or other scheme of arrangement.

(n) **Prohibited Agreements**. The Company shall not, nor shall it permit any of its Subsidiaries to, enter into any agreement with respect to the covenants contained in this Section 15.

16. **Liquidation, Dissolution, Winding-Up**. In the event of a Liquidation Event, the Holders shall be entitled to receive in cash out of the assets of the Company, whether from capital or from earnings available for distribution to its stockholders (the "**Liquidation Funds**"), before any amount shall be paid to the holders of any of shares of Junior Stock, but pari passu with any Preferred Shares rank pari passu in respect of the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding up of the Company (collectively, the "**Parity Stock**") then outstanding, an amount per Preferred Share equal to the greater of (i) 100% of Stated Value or (ii) the amount the Holder would receive if such Holder converted such Preferred Shares into Common Stock immediately prior to the date of such payment, including accrued and unpaid Dividends; **provided**, that, if the Liquidation Funds are insufficient to pay the full amount due to the Holders and holders of shares of Parity Stock, then each Holder and each holder of Parity Stock shall receive a percentage of the Liquidation Funds equal to the full amount of Liquidation Funds payable to such Holder and such holder of Parity Stock as a liquidation preference, in accordance with their respective certificate of designations (or equivalent), as a percentage of the full amount of Liquidation Funds payable to all holders of Preferred Shares and all holders of shares of Parity Stock. To the extent necessary, the Company shall cause such actions to be taken by each of its Subsidiaries so as to enable, to the maximum extent permitted by law, the proceeds of a Liquidation Event to be distributed to the Holders in accordance with this Section 16. All the preferential amounts to be paid to the Holders under this Section 16 shall be paid or set apart for payment before the payment or setting apart for payment of any amount for, or the distribution of any Liquidation Funds of the Company to the holders of shares of Junior Stock in connection with a Liquidation Event as to which this Section 16 applies.

17. **Distribution of Assets**. If the Company shall declare or make any dividend or other distributions of its assets (or rights to acquire its assets) to any or all holders of shares of Common Stock, by way of return of capital or otherwise (including without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (the "**Distributions**"), then each Holder, as holders of Preferred Shares, will be entitled to such Distributions as if such Holder had held the number of shares of Common Stock acquirable upon complete conversion of the Preferred Shares (without taking into account any limitations or restrictions on the convertibility of the Preferred Shares) immediately prior to the date on which a record is taken for such Distribution or, if no such record is taken, the date as of which the record holders of Common Stock are to be determined for such Distributions (**provided**, that, to the extent that such Holder's right to participate in any such Distribution would result in such Holder exceeding the Maximum Percentage, then such Holder shall not be entitled to participate in such Distribution to such extent (and shall not be entitled to beneficial ownership of such shares of Common Stock as a result of such Distribution (and beneficial ownership) to such extent) and the portion of such Distribution shall be held in abeyance for such Holder until such time or times as its right thereto would not result in such Holder exceeding the Maximum Percentage, at which time or times, if any, such Holder shall be granted such rights (and any rights under this Section 17 on such initial rights or on any subsequent such rights to be held similarly in abeyance) to the same extent as if there had been no such limitation).

18. **[Reserved].**

19. **Transfer of Preferred Shares**. A Holder may transfer some or all of its Preferred Shares without the consent of the Company.

20. **Reissuance of Preferred Certificates**.

(a) **Transfer**. If any Preferred Shares are to be transferred, the applicable Holder shall surrender the applicable Preferred Share Certificate to the Company, whereupon the Company will forthwith issue and deliver upon the order of such Holder a new Preferred Share Certificate (in accordance with Section 20(d)), registered as such Holder may request, representing the outstanding number of Preferred Shares being transferred by such Holder and, if less than the entire outstanding number of Preferred Shares is being transferred, a new Preferred Share Certificate (in accordance with Section 20(d)) to such Holder representing the outstanding number of Preferred Shares not being transferred. Such Holder and any assignee, by acceptance of the Preferred Share Certificate, acknowledge and agree that, by reason of the provisions of Section 4(c)(i) following conversion or redemption of any of the Preferred Shares, the outstanding number of Preferred Shares represented by the Preferred Shares may be less than the number of Preferred Shares stated on the face of the Preferred Shares.

(b) **Lost, Stolen or Mutilated Preferred Share Certificate**. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of a Preferred Share Certificate (as to which a written certification and the indemnification contemplated below shall suffice as such evidence), and, in the case of loss, theft or destruction, of any indemnification undertaking by the applicable Holder to the Company in customary and reasonable form and, in the case of mutilation, upon surrender and cancellation of such Preferred Share Certificate, the Company shall execute and deliver to such Holder a new Preferred Share Certificate (in accordance with Section 20(d)) representing the applicable outstanding number of Preferred Shares.

(c) **Preferred Share Certificate Exchangeable for Different Denominations**. Each Preferred Share Certificate is exchangeable, upon the surrender hereof by the applicable Holder at the principal office of the Company, for a new Preferred Share Certificate or Preferred Share Certificate(s) (in accordance with Section 20(d)) representing in the aggregate the outstanding number of the Preferred Shares in the original Preferred Share Certificate, and each such new Preferred Share Certificate will represent such portion of such outstanding number of Preferred Shares from the original Preferred Share Certificate as is designated by such Holder at the time of such surrender.

(d) **Issuance of New Preferred Share Certificate**. Whenever the Company is required to issue a new Preferred Share Certificate pursuant to the terms of this Certificate of Designations, such new Preferred Share Certificate (i) shall represent, as indicated on the face of such Preferred Share Certificate, the number of Preferred Shares remaining outstanding (or in the case of a new Preferred Share Certificate being issued pursuant to Section 20(a) or Section 20(c), the number of Preferred Shares designated by such Holder which, when added to the number of Preferred Shares represented by the other new Preferred Share Certificates issued in connection with such issuance, does not exceed the number of Preferred Shares remaining outstanding under the original Preferred Share Certificate immediately prior to such issuance of new Preferred Share Certificate), and (ii) shall have an issuance date, as indicated on the face of such new Preferred Share Certificate, which is the same as the issuance date of the original Preferred Share Certificate.

21. **Remedies, Characterizations, Other Obligations, Breaches and Injunctive Relief.** The remedies provided in this Certificate of Designations shall be cumulative and in addition to all other remedies available under this Certificate of Designations and any of the other Transaction Documents, at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit any Holder's right to pursue actual and consequential damages for any failure by the Company to comply with the terms of this Certificate of Designations. The Company covenants to each Holder that there shall be no characterization concerning this instrument other than as expressly provided herein. Amounts set forth or provided for herein with respect to payments, conversion and the like (and the computation thereof) shall be the amounts to be received by a Holder and shall not, except as expressly provided herein, be subject to any other obligation of the Company (or the performance thereof). The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holders and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, each Holder shall be entitled, in addition to all other available remedies, to an injunction restraining any such breach or any such threatened breach, without the necessity of showing economic loss and without any bond or other security being required. The Company shall provide all information and documentation to a Holder that is reasonably requested by such Holder to enable such Holder to confirm the Company's compliance with the terms and conditions of this Certificate of Designations.

22. **Payment of Collection, Enforcement and Other Costs**. If (a) any Preferred Shares are placed in the hands of an attorney for collection or enforcement or is collected or enforced through any legal proceeding or a Holder otherwise takes action to collect amounts due under this Certificate of Designations with respect to the Preferred Shares or to enforce the provisions of this Certificate of Designations or (b) there occurs any bankruptcy, reorganization, receivership of the Company or other proceedings affecting Company creditors' rights and involving a claim under this Certificate of Designations, then the Company shall pay the costs incurred by such Holder for such collection, enforcement or action or in connection with such bankruptcy, reorganization, receivership or other proceeding, including, without limitation, reasonable attorneys' fees and disbursements.

23. **Construction; Headings**. This Certificate of Designations shall be deemed to be jointly drafted by the Company and the Holders and shall not be construed against any such Person as the drafter hereof. The headings of this Certificate of Designations are for convenience of reference and shall not form part of, or affect the interpretation of, this Certificate of Designations. Unless the context clearly indicates otherwise, each pronoun herein shall be deemed to include the masculine, feminine, neuter, singular and plural forms thereof. The terms "including," "includes," "include" and words of like import shall be construed broadly as if followed by the words "without limitation." The terms "herein," "hereunder," "hereof" and words of like import refer to this entire Certificate of Designations instead of just the provision in which they are found. Unless expressly indicated otherwise, all section references are to sections of this Certificate of Designations. Terms used in this Certificate of Designations and not otherwise defined herein, but defined in the other Transaction Documents, shall have the meanings ascribed to such terms on the Closing Date in such other Transaction Documents unless otherwise consented to in writing by the Required Holders.

24. **Failure or Indulgence Not Waiver**. No failure or delay on the part of the Company or a Holder in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege. No waiver shall be effective unless it is in writing and signed by an authorized representative of the waiving party. This Certificate of Designations shall be deemed to be jointly drafted by the Company and all Holders and shall not be construed against any Person as the drafter hereof. Notwithstanding the foregoing, nothing contained in this Section 24 shall permit any waiver of any provision of Section 4(d).

25. **Dispute Resolution**.

(a) **Submission to Dispute Resolution.**

(i) In the case of a dispute relating to a Closing Bid Price, a Closing Sale Price, a Conversion Price, a VWAP or a fair market value or the arithmetic calculation of a Conversion Rate, or the applicable Redemption Price (as the case may be) (including, without limitation, a dispute relating to the determination of any of the foregoing), the Company or the applicable Holder (as the case may be) shall submit the dispute to the other party via facsimile or electronic mail (A) if by the Company, within two (2) Business Days after the occurrence of the circumstances giving rise to such dispute or (B) if by such Holder at any time after such Holder learned of the circumstances giving rise to such dispute. If such Holder and the Company are unable to promptly resolve such dispute relating to such Closing Bid Price, such Closing Sale Price, such Conversion Price, such VWAP or such fair market value, or the arithmetic calculation of such Conversion Rate or such applicable Redemption Price (as the case may be), at any time after the second (2nd) Business Day following such initial notice by the Company or such Holder (as the case may be) of such dispute to the Company or such Holder (as the case may be), then such Holder may, at its sole option, select an independent, reputable investment bank to resolve such dispute.

(ii) Such Holder and the Company shall each deliver to such investment bank (A) a copy of the initial dispute submission so delivered in accordance with the first sentence of this Section 25 and (B) written documentation supporting its position with respect to such dispute, in each case, no later than 5:00 p.m. (New York time) by the fifth (5th) Business Day immediately following the date on which such Holder selected such investment bank (the "**Dispute Submission Deadline**") (the documents referred to in the immediately preceding clauses (A) and (B) are collectively referred to herein as the "**Required Dispute Documentation**") (it being understood and agreed that if either such Holder or the Company fails to so deliver all of the Required Dispute Documentation by the Dispute Submission Deadline, then the party who fails to so submit all of the Required Dispute Documentation shall no longer be entitled to (and hereby waives its right to) deliver or submit any written documentation or other support to such investment bank with respect to such dispute and such investment bank shall resolve such dispute based solely on the Required Dispute Documentation that was delivered to such investment bank prior to the Dispute Submission Deadline). Unless otherwise agreed to in writing by both the Company and such Holder or otherwise requested by such investment bank, neither the Company nor such Holder shall be entitled to deliver or submit any written documentation or other support to such investment bank in connection with such dispute (other than the Required Dispute Documentation).

(iii) The Company and such Holder shall cause such investment bank to determine the resolution of such dispute and notify the Company and such Holder of such resolution no later than ten (10) Business Days immediately following the Dispute Submission Deadline. The fees and expenses of such investment bank shall be borne solely by the Company, and such investment bank's resolution of such dispute shall be final and binding upon all parties absent manifest error.

(b) **Miscellaneous**. The Company expressly acknowledges and agrees that (i) this Section 25 constitutes an agreement to arbitrate between the Company and each Holder (and constitutes an arbitration agreement) under §7501, et seq. of the New York Civil Practice Law and Rules ("**CPLR**") and that any Holder is authorized to apply for an order to compel arbitration pursuant to CPLR §7503(a) in order to compel compliance with this Section 25, (ii) the terms of this Certificate of Designations and each other applicable Transaction Document shall serve as the basis for the selected investment bank's resolution of the applicable dispute, such investment bank shall be entitled (and is hereby expressly authorized) to make all findings, determinations and the like that such investment bank determines are required to be made by such investment bank in connection with its resolution of such dispute and in resolving such dispute such investment bank shall apply such findings, determinations and the like to the terms of this Certificate of Designations and any other applicable Transaction Documents, (iii) the applicable Holder (and only such Holder with respect to disputes solely relating to such Holder), in its sole discretion, shall have the right to submit any dispute described in this Section 25 to any state or federal court sitting in the City of New York, Borough of Manhattan in lieu of utilizing the procedures set forth in this Section 25 and (iv) nothing in this Section 25 shall limit such Holder from obtaining any injunctive relief or other equitable remedies (including, without limitation, with respect to any matters described in this Section 25).

26. **Notices; Currency; Payments**.

(a) **Notices**. The Company shall provide each Holder of Preferred Shares with prompt written notice of all actions taken pursuant to the terms of this Certificate of Designations, including in reasonable detail a description of such action and the reason therefor. Whenever notice is required to be given under this Certificate of Designations, unless otherwise provided herein, such notice must be in writing and shall be given in accordance with Section 6.4 of the Securities Purchase Agreement. The Company shall provide each Holder with prompt written notice of all actions taken pursuant to this Certificate of Designations, including in reasonable detail a description of such action and the reason therefore. Without limiting the generality of the foregoing, the Company shall give written notice to each Holder (i) immediately upon any adjustment of the Conversion Price, setting forth in reasonable detail, and certifying, the calculation of such adjustment and (ii) at least fifteen (15) days prior to the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the Common Stock, (B) with respect to any grant, issuances, or sales of any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property to holders of shares of Common Stock or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation; **provided** that, in each case, such information shall be made known to the public prior to or in conjunction with such notice being provided to such Holder.

(b) **Currency**. All dollar amounts referred to in this Certificate of Designations are in United States Dollars ("**U.S. Dollars**"), and all amounts owing under this Certificate of Designations shall be paid in U.S. Dollars. All amounts denominated in other currencies (if any) shall be converted into the U.S. Dollar equivalent amount in accordance with the Exchange Rate on the date of calculation. "**Exchange Rate**" means, in relation to any amount of currency to be converted into U.S. Dollars pursuant to this Certificate of Designations, the U.S. Dollar exchange rate as published in the Wall Street Journal on the relevant date of calculation (it being understood and agreed that where an amount is calculated with reference to, or over, a period of time, the date of calculation shall be the final date of such period of time).

(c) **Payments**. Whenever any payment of cash is to be made by the Company to any Person pursuant to this Certificate of Designations, unless otherwise expressly set forth herein, such payment shall be made in lawful money of the United States of America by a certified check drawn on the account of the Company and sent via overnight courier service to such Person at such address as previously provided to the Company in writing (which address, in the case of each of the Purchasers, shall initially be as set forth on Schedule I attached to the Securities Purchase Agreement); **provided**, that such Holder may elect to receive a payment of cash via wire transfer of immediately available funds by providing the Company with prior written notice setting out such request and such Holder's wire transfer instructions. Whenever any amount expressed to be due by the terms of this Certificate of Designations is due on any day which is not a Business Day, the same shall instead be due on the next succeeding day which is a Business Day.

27. **Waiver of Notice**. To the extent permitted by law, the Company hereby irrevocably waives demand, notice, presentment, protest and all other demands and notices in connection with the delivery, acceptance, performance, default or enforcement of this Certificate of Designations and the Securities Purchase Agreement.

28. **Governing Law**. This Certificate of Designations shall be construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Certificate of Designations shall be governed by, the internal laws of the State of Delaware, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Delaware or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of Delaware. Except as otherwise required by Section 25, the Company hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan, for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Nothing contained herein shall limit, or shall be deemed or construed to limit, any provision of Section 25. THE COMPANY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE TO, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH OR ARISING OUT OF THIS CERTIFICATE OF DESIGNATIONS OR ANY TRANSACTION CONTEMPLATED HEREBY.

29. **Judgment Currency**.

(a) If for the purpose of obtaining or enforcing judgment against the Company in any court in any jurisdiction it becomes necessary to convert into any other currency (such other currency being hereinafter in this Section 29 referred to as the "**Judgment Currency**") an amount due in U.S. dollars under this Certificate of Designations, the conversion shall be made at the Exchange Rate prevailing on the Trading Day immediately preceding:

(i) the date actual payment of the amount due, in the case of any proceeding in the courts of New York or in the courts of any other jurisdiction that will give effect to such conversion being made on such date: or

(ii) the date on which the foreign court determines, in the case of any proceeding in the courts of any other jurisdiction (the date as of which such conversion is made pursuant to this Section 29(a)(ii) being hereinafter referred to as the "**Judgment Conversion Date**").

(b) If in the case of any proceeding in the court of any jurisdiction referred to in Section 29(a)(ii), there is a change in the Exchange Rate prevailing between the Judgment Conversion Date and the date of actual payment of the amount due, the applicable party shall pay such adjusted amount as may be necessary to ensure that the amount paid in the Judgment Currency, when converted at the Exchange Rate prevailing on the date of payment, will produce the amount of US dollars which could have been purchased with the amount of Judgment Currency stipulated in the judgment or judicial order at the Exchange Rate prevailing on the Judgment Conversion Date.

(c) Any amount due from the Company under this provision shall be due as a separate debt and shall not be affected by judgment being obtained for any other amounts due under or in respect of this Certificate of Designations.

30. **Severability**. If any provision of this Certificate of Designations is prohibited by law or otherwise determined to be invalid or unenforceable by a court of competent jurisdiction, the provision that would otherwise be prohibited, invalid or unenforceable shall be deemed amended to apply to the broadest extent that it would be valid and enforceable, and the invalidity or unenforceability of such provision shall not affect the validity of the remaining provisions of this Certificate of Designations so long as this Certificate of Designations as so modified continues to express, without material change, the original intentions of the parties as to the subject matter hereof and the prohibited nature, invalidity or unenforceability of the provision(s) in question does not substantially impair the respective expectations or reciprocal obligations of the parties or the practical realization of the benefits that would otherwise be conferred upon the parties. The parties will endeavor in good faith negotiations to replace the prohibited, invalid or unenforceable provision(s) with a valid provision(s), the effect of which comes as close as possible to that of the prohibited, invalid or unenforceable provision(s).

31. **Maximum Payments**. Without limiting Section 9(d) of the Securities Purchase Agreement, nothing contained herein shall be deemed to establish or require the payment of a rate of interest or other charges in excess of the maximum permitted by applicable law. In the event that the rate of interest required to be paid or other charges hereunder exceed the maximum permitted by such law, any payments in excess of such maximum shall be credited against amounts owed by the Company to the applicable Holder and thus refunded to the Company.

32. **Stockholder Matters; Amendment**.

(a) **Stockholder Matters**. Any stockholder action, approval or consent required, desired or otherwise sought by the Company pursuant to the DGCL, the Certificate of Incorporation, this Certificate of Designations or otherwise with respect to the issuance of Preferred Shares may be effected by written consent of the Company's stockholders or at a duly called meeting of the Company's stockholders, all in accordance with the applicable rules and regulations of the DGCL. This provision is intended to comply with the applicable sections of the DGCL permitting stockholder action, approval and consent affected by written consent in lieu of a meeting.

(b) **Amendment**. This Certificate of Designations or any provision hereof may be amended by obtaining the affirmative vote at a meeting duly called for such purpose, or written consent without a meeting in accordance with the DGCL, of the Required Holders, voting separate as a single class with one vote per Preferred Share, and with such other stockholder approval, if any, as may then be required pursuant to the DGCL and the Certificate of Incorporation.

33. **Certain Defined Terms**. For purposes of this Certificate of Designations, the following terms shall the following meanings:

(a) "**Affiliate**", "**Bylaws**" "**Certificate of Incorporation**", "**Closing Date**" (which is the date the Company initially issued the Preferred Shares pursuant to the terms of the Securities Purchase Agreement), "**Indebtedness**", "**Intellectual Property Rights**", "**Lien**", "**Material Adverse Effect**", "**Purchaser**", "**Purchase Price**" and "**Transaction Documents**," each shall have the meaning ascribed to such terms in the Securities Purchase Agreement.

(b) "**1934 Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

(c) "**Additional Amount**" means, as of the applicable date of determination, with respect to each Preferred Share, all declared and unpaid Dividends (inclusive of the Guaranteed Dividends if applicable) on such Preferred Share.

(d) "**Asset Transfer**" means a sale, lease or sublease (as lessor or sublessor), sale and leaseback, conveyance, transfer, assignment or other disposition to, or any exchange of property (other than cash) with, any Person of, or any other transaction permitting any Person to acquire, in one transaction or a series of transactions, any interest in, all or any part of a business or any property of any kind (other than cash) including a spin-off, split-off, sale, factoring at maturity, collection of or other disposal, with or without recourse, of any notes or accounts receivable.

(e) "**Bloomberg**" means Bloomberg, L.P.

(f) "**Business Day**" means any day except Saturdays, Sundays, any day that is a federal holiday in the United States and any day on which the Federal Reserve Bank of New York is not open for business.

(g) "**Change of Control**" means any Fundamental Transaction other than (i) any merger of the Company or any of its, direct or indirect, wholly-owned Subsidiaries with or into any of the foregoing Persons, (ii) any reorganization, recapitalization or reclassification of the shares of Common Stock in which holders of the Company's voting power immediately prior to such reorganization, recapitalization or reclassification continue after such reorganization, recapitalization or reclassification to hold publicly traded securities and, directly or indirectly, are, in all material respects, such holders of the voting power of the surviving entity (or entities with the authority or voting power to elect the members of the board of directors (or their equivalent if other than a corporation) of such entity or entities) after such reorganization, recapitalization or reclassification, or (iii) pursuant to a migratory merger effected solely for the purpose of changing the jurisdiction of incorporation of the Company or any of its Subsidiaries.

(h) "**Change of Control Redemption Premium**" means [110%].

(i) "**Closing Bid Price**" and "**Closing Sale Price**" means, for any security as of any date, the last closing bid price and last closing trade price, respectively, for such security on the Principal Market, as reported by Bloomberg, or, if the Principal Market begins to operate on an extended hours basis and does not designate the closing bid price or the closing trade price (as the case may be) then the last bid price or last trade price, respectively, of such security prior to 4:00:00 p.m., New York time, as reported by Bloomberg, or, if the Principal Market is not the principal securities exchange or trading market for such security, the last closing bid price or last trade price, respectively, of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg, or if the foregoing do not apply, the last closing bid price or last trade price, respectively, of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no closing bid price or last trade price, respectively, is reported for such security by Bloomberg, the average of the bid prices, or the ask prices, respectively, of any market makers for such security as reported in the "pink sheets" by OTC Markets Group Inc. (formerly Pink Sheets LLC). If the Closing Bid Price or the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Bid Price or the Closing Sale Price (as the case may be) of such security on such date shall be the fair market value as mutually determined by the Company and the Required Holder. If the Company and the Required Holders are unable to agree upon the fair market value of such security, then such dispute shall be resolved in accordance with the procedures in Section 25. All such determinations shall be appropriately adjusted for any stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions during such period.

(j) "**Common Stock**" means (i) the Company's shares of common stock, $0.0001 par value per share, and (ii) any capital stock into which such common stock shall have been changed or any share capital resulting from a reclassification of such common stock.

(k) "**Convertible Securities**" means any stock or other security (other than Options) that is at any time and under any circumstances, directly or indirectly, convertible into, exercisable or exchangeable for, or which otherwise entitles the holder thereof to acquire, any shares of Common Stock.

(l) "**Dividend Rate**" means ten percent (10.0%) per annum, as may be adjusted from time to time in accordance with Section 3.

(m) **"Effective Price Per Share of the Initial Public Offering"** means the effective price per share paid by investors per share of Common Stock that is sold to the public. By way of two non-exhaustive examples, among other similar offering structures: (a) if the stated public offering price of the Initial Public Offering is $10.00, but is sold as a unit consisting of two (2) shares of Common Stock, the "Effective Price Per Share of the Initial Public Offering" is $5.00 or (b) if the stated public offering price of the Initial Public Offering is $10.00, but is sold as a unit consisting of one (1) share of Common Stock and a warrant structured as an *exchange warrant* or a *special cashless exercise warrant* wherein the holder of such warrant may exercise such warrant on a cashless basis, in whole or in part, for a whole number of shares, equal to the same number of shares that would have been issued to the holder, if such holder had, instead, elected to exercise by paying the aggregate exercise price, in cash, without having to pay such aggregate exercise price, then the "Effective Price Per Share of the Initial Public Offering" is $5.00.

(n) "**Eligible Market**" means The New York Stock Exchange, the NYSE American, the NASDAQ Global Select Market, the NASDAQ Global Market or the Principal Market.

(o) "**Equity Conditions**" means, if and as applicable, with respect to a given date of determination: (i) on each day during the period beginning thirty calendar days prior to the applicable date of determination and ending on and including the applicable date of determination (the "**Equity Conditions Measuring Period**"), from and after the Initial Public Offering, the Common Stock is listed or designated for quotation (as applicable) on an Eligible Market and shall not have been suspended from trading on an Eligible Market (other than suspensions of not more than two (2) days and occurring prior to the applicable date of determination due to business announcements by the Company) nor shall delisting or suspension by an Eligible Market have been threatened (with a reasonable prospect of delisting occurring after giving effect to all applicable notice, appeal, compliance and hearing periods) or reasonably likely to occur or pending as evidenced by (A) a writing by such Eligible Market or (B) the Company falling below the minimum listing maintenance requirements of the Eligible Market on which the Common Stock is then listed or designated for quotation, and all cure periods afforded by such Eligible Market have passed (as applicable); (ii) during the Equity Conditions Measuring Period, the Company shall have delivered all shares of Common Stock issuable upon conversion of the Preferred Shares on a timely basis as set forth in Section 4 and all other shares of capital stock required to be delivered by the Company on a timely basis as set forth in the other Transaction Documents; (iii) any shares of Common Stock to be issued in connection with the event requiring determination (or issuable upon conversion of the Conversion Amount being redeemed in the event requiring this determination (without regards to any limitations on conversion set forth herein)) may be issued in full without violating the rules or regulations of the Eligible Market on which the Common Stock is then listed or designated for quotation (as applicable); (iv) on each day during the Equity Conditions Measuring Period, no public announcement of a pending, proposed or intended Fundamental Transaction shall have occurred which has not been abandoned, terminated or consummated; (v) the Holder shall not be in possession of any material, non-public information provided to any of them by the Company, any of its Subsidiaries, Affiliates or any of their respective staff members (whether classified as employees or independent contractors), officers, directors, managers, managing members, representatives, agents or the like; (vi) on each day during the Equity Conditions Measuring Period, the Company otherwise shall have been in compliance with each, and shall not have breached any representation or warranty in any material respect (other than representations or warranties subject to material adverse effect or materiality, which may not be breached in any respect) or any covenant or other term or condition of any Transaction Document, including, without limitation, the Company shall not have failed to timely make any payment pursuant to any Transaction Document; (vii) from and after the Initial Public Offering, on each Trading Day during the Equity Conditions Measuring Period, there shall not have occurred any Price Failure as of such applicable date of determination; (viii) on the applicable date of determination (A) no Authorized Share Failure shall exist or be continuing and the applicable Required Minimum Securities Amount of shares of Common Stock are available under the certificate of incorporation of the Company and reserved by the Company to be issued pursuant to the Preferred Shares and (B) all shares of Common Stock to be issued in connection with the event requiring this determination (or issuable upon conversion of the Conversion Amount being redeemed in the event requiring this determination (without regards to any limitations on conversion set forth herein)) may be issued in full without resulting in an Authorized Share Failure; (ix) on each day during the Equity Conditions Measuring Period, there shall not have occurred and there shall not exist a Triggering Event or an event that with the passage of time or giving of notice would constitute a Triggering Event; and (x) the shares of Common Stock issuable pursuant the event requiring the satisfaction of the Equity Conditions are duly authorized and listed and eligible for trading without restriction on an Eligible Market.

(p) "**Equity Conditions Failure**" means, as of any given date of determination, that on any day during the period commencing twenty (20) Trading Days prior to such date of determination, the Equity Conditions have not been satisfied (or waived in writing by the applicable Holder).

(q) "**Exempt Issuance**" means the issuance of (i) shares of Common Stock or options to employees, officers, directors, advisors or independent contractors of the Company; **provided**, that such issuance is approved by a majority of the board of directors of the Company; and**provided**, **further,** that such issuance shall not exceed in the aggregate [15%] of the outstanding shares of Common Stock without the prior approval of the Required Holders, (ii) securities to be issued in connection with IPO Transactions as described in the Registration Statement relating to the Initial Public Offering.

(r) "**Fundamental Transaction**" means that (i) the Company or any of its Subsidiaries shall, directly or indirectly, in one or more related transactions, (1) consolidate or merge with or into (except where the Company or any of its Subsidiaries is the surviving corporation or such merger qualifies under Section 368(a)(1)(F) of the Internal Revenue Code of 1986, as amended, as a mere change in form) any other Person, or (2) sell, lease, license, assign, transfer, convey or otherwise dispose of all or a substantial portion of its respective properties or assets to any other Person, or (3) allow any other Person to make a purchase, tender or exchange offer that is accepted by such holders of more than 50% of the outstanding shares of Voting Stock of the Company (not including any shares of Voting Stock of the Company held by the Person or Persons making or party to, or associated or affiliated with the Persons making or party to, such purchase, tender or exchange offer), or (4) consummate a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with any other Person whereby such other Person acquires more than 50% of the outstanding shares of Voting Stock of the Company (not including any shares of Voting Stock of the Company held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination), or (5) the Company or any of its Subsidiaries shall, directly or indirectly, in one or more related transactions, reorganize, recapitalize or reclassify the Common Stock (which shall not include a reverse stock split), or (ii) any "person" or "group" (as these terms are used for purposes of Sections 13(d) and 14(d) of the 1934 Act and the rules and regulations promulgated thereunder) is or shall become the "beneficial owner" (as defined in Rule 13d-3 under the 1934 Act), directly or indirectly, of 50% of the aggregate ordinary voting power represented by issued and outstanding Voting Stock of the Company.

(s) "**GAAP**" means United States generally accepted accounting principles, consistently applied.

(t) "**Guaranteed Dividends**" shall have the meaning set forth in Section 3 hereunder.

(u) "**Initial Public Offering"** means the initial public offering of the Company's securities.

(v) "**Liquidation Event**" means, whether in a single transaction or series of transactions, the voluntary or involuntary liquidation, dissolution or winding up of the Company or such Subsidiaries the assets of which constitute all or substantially all of the assets of the business of the Company and its Subsidiaries, taken as a whole.

(w) [Reserved].

(x) "**Options**" means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.

(y) "**Parent Entity**" of a Person means an entity that, directly or indirectly, controls the applicable Person and whose common stock or equivalent equity security is quoted or listed on an Eligible Market, or, if there is more than one such Person or Parent Entity, the Person or Parent Entity with the largest public market capitalization as of the date of consummation of the Change of Control.

(z) "**Parity Stock**" means any shares of capital stock that is of pari passu rank to the Preferred Shares in respect of the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding up of the Company.

(aa) "**Permitted Debt**" means (i) Indebtedness as in effect as of the Subscription Date (inclusive of the contemplated bridge financing in an aggregate principal amount not to exceed $300,000) as set forth in a Schedule of Permitted Debt delivered to the Holders, (ii) Indebtedness secured by Permitted Liens or unsecured but as described in clauses (iv) and (v) of the definition of Permitted Liens and (iii) any borrowing that the Company may undertake as secured by its intellectual property.

(bb) "**Permitted Liens**" means (i) any Lien for taxes not yet due or delinquent or being contested in good faith by appropriate proceedings for which adequate reserves have been established in accordance with GAAP, (ii) any statutory Lien arising in the ordinary course of business by operation of law with respect to a liability that is not yet due or delinquent, (iii) any Lien created by operation of law, such as materialmen's liens, mechanics' liens and other similar liens, arising in the ordinary course of business with respect to a liability that is not yet due or delinquent or that are being contested in good faith by appropriate proceedings, (iv) Liens (A) upon or in any equipment acquired or held by the Company or any of its Subsidiaries to secure the purchase price of such equipment or Indebtedness incurred solely for the purpose of financing the acquisition or lease of such equipment, or (B) existing on such equipment at the time of its acquisition, **provided**, that the Lien is confined solely to the property so acquired and improvements thereon, and the proceeds of such equipment, in either case, with respect to Indebtedness in an aggregate amount not to exceed $1.0 million without written consent of the Required Holders, (v) Liens incurred in connection with the extension, renewal or refinancing of the Indebtedness secured by Liens of the type described in clause (iv) above, **provided**, that any extension, renewal or replacement Lien shall be limited to the property encumbered by the existing Lien and the principal amount of the Indebtedness being extended, renewed or refinanced does not increase, (vi) Liens in favor of customs and revenue authorities arising as a matter of law to secure payments of custom duties in connection with the importation of goods, (vii) Liens arising from judgments, decrees or attachments in circumstances not constituting a Triggering Event under Section 5 and (viii) Liens with respect to the Permitted Senior Indebtedness.

(cc) "**Permitted Senior Indebtedness**" means the Indebtedness as in effect as of the Subscription Date as set forth in a Schedule of Permitted Senior Indebtedness delivered to the Holders.

(dd) "**Person**" means an individual, partnership, corporation, incorporated or unincorporated association, limited liability company, limited liability partnership, joint stock company, land trust, business trust or unincorporated organization, or a government or agency, department or other subdivision thereof or other entity of any kind.

(ee) "**Price Failure**" means, with respect to a particular date of determination, the quotient of (i) the sum of the VWAP of the Common Stock on each of the five (5) consecutive Trading Days ending on the Trading Day immediately preceding such date of determination, divided by (ii) five (5) fails to be less than [$_.__] (as adjusted for stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions occurring after the Subscription Date). All such determinations to be appropriately adjusted for any stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions during any such measuring period.

(ff) "**Principal Market**" means the NYSE American.

(gg) [Reserved].

(hh) "**Redemption Premium**" means [110%].

(ii) [Reserved].

(jj) [Reserved].

(kk) [Reserved].

(ll) "**SEC**" means the Securities and Exchange Commission or the successor thereto.

(mm) "**Securities Purchase Agreement**" means that certain securities purchase agreement by and among the Company and the initial holders of Preferred Shares, dated as of the Subscription Date, as may be amended from time in accordance with the terms thereof.

(nn) "**Senior Preferred Stock**" means any shares of capital stock that is of senior rank to the Preferred Shares in respect of the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding up of the Company.

(oo) "**Stated Value**" shall mean $1,000.00 per share, subject to adjustment for stock splits, stock dividends, recapitalizations, reorganizations, reclassifications, combinations, subdivisions or other similar events occurring after the Initial Issuance Date with respect to the Preferred Shares.

(pp) "**Subscription Date**" means [____], 2023.

(qq) "**Subsidiaries**" means, as of any date of determination, collectively, all Current Subsidiaries and all New Subsidiaries, and each of the foregoing, individually, a "Subsidiary."

(rr) "**Successor Entity**" means the Person (or, if so elected by the Required Holders, the Parent Entity) formed by, resulting from or surviving any Change of Control or the Person (or, if so elected by the Required Holders, the Parent Entity) with which such Change of Control shall have been entered into.

(ss) "**Trading Day**" means, as applicable, (x) with respect to all price or trading volume determinations relating to the Common Stock, any day on which the Common Stock is traded on the Principal Market, or, if the Principal Market is not the principal trading market for the Common Stock, then on the principal securities exchange or securities market on which the Common Stock is then traded; **provided**, that "**Trading Day**" shall not include any day on which the Common Stock is scheduled to trade on such exchange or market for less than 4.5 hours or any day that the Common Stock is suspended from trading during the final hour of trading on such exchange or market (or if such exchange or market does not designate in advance the closing time of trading on such exchange or market, then during the hour ending at 4:00:00 p.m., New York time) unless such day is otherwise designated as a Trading Day in writing by the Required Holders or (y) with respect to all determinations other than price determinations relating to the Common Stock, any day on which The New York Stock Exchange (or any successor thereto) is open for trading of securities.

(tt) "**Voting Stock**" of a Person means capital stock of such Person of the class or classes pursuant to which the holders thereof have the general voting power to elect, or the general power to appoint, at least a majority of the board of directors, managers, trustees or other similar governing body of such Person (irrespective of whether or not at the time capital stock of any other class or classes shall have or might have voting power by reason of the happening of any contingency).

(uu) "**VWAP**" means, for any security as of any date, the dollar volume-weighted average price for such security on the Principal Market (or, if the Principal Market is not the principal trading market for such security, then on the principal securities exchange or securities market on which such security is then traded) during the period beginning at 9:30:01 a.m., New York time, and ending at 4:00:00 p.m., New York time, as reported by Bloomberg through its "**Volume at Price**" function or, if the foregoing does not apply, the dollar volume-weighted average price of such security in the over-the-counter market on the electronic bulletin board for such security during the period beginning at 9:30:01 a.m., New York time, and ending at 4:00:00 p.m., New York time, as reported by Bloomberg, or, if no dollar volume-weighted average price is reported for such security by Bloomberg for such hours, the average of the highest closing bid price and the lowest closing ask price of any of the market makers for such security as reported in the "pink sheets" by OTC Markets Group Inc. (formerly Pink Sheets LLC). If the VWAP cannot be calculated for such security on such date on any of the foregoing bases, the VWAP of such security on such date shall be the fair market value as mutually determined by the Company and the Required Holders. If the Company and the Required Holders are unable to agree upon the fair market value of such security, then such dispute shall be resolved in accordance with the procedures in Section 25. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination, recapitalization or other similar transaction during such period.

34. **Disclosure**. Upon receipt or delivery by the Company of any notice in accordance with the terms of this Certificate of Designations, unless the Company has in good faith determined that the matters relating to such notice do not constitute material, non-public information relating to the Company or any of its Subsidiaries, the Company, from and after the initial Public Offering shall within four (4) Business Days after any such receipt or delivery publicly disclose such material, non-public information on a Current Report on Form 8-K or otherwise. In the event that the Company believes that a notice contains material, non-public information relating to the Company or any of its Subsidiaries, the Company so shall indicate to such Holder contemporaneously with delivery of such notice, and in the absence of any such indication, such Holder shall be allowed to presume that all matters relating to such notice do not constitute material, non-public information relating to the Company or any of its Subsidiaries.

* * * * *

IN WITNESS WHEREOF, the Company has caused this Certificate of Designations of Series B Convertible Preferred Stock of Chromocell Therapeutics Corporation to be signed by its Chairman of the Board on this __th day of _____, 2023.

CHROMOCELL THERAPEUTICS CORPORATION

By: _____

Name: Todd Davis

Title: Chairman of the Board

EXHIBIT I

CHROMOCELL THERAPEUTICS CORPORATION

CONVERSION NOTICE

Reference is made to the Certificate of Designations, Preferences and Rights of the Series B Convertible Preferred Stock of Chromocell Therapeutics Corporation (the "**Certificate of Designations**"). In accordance with and pursuant to the Certificate of Designations, the undersigned hereby elects to convert the number of shares of Series B Convertible Preferred Stock, $0.0001 par value per share (the "**Preferred Shares**"), of Chromocell Therapeutics Corporation, a Delaware corporation (the "**Company**"), indicated below into shares of common stock, $0.0001 par value per share (the "**Common Stock**"), of the Company, as of the date specified below.

Date of Conversion: _____

Aggregate number of Preferred Shares to be converted: _____

Aggregate Stated Value of such Preferred Shares to be converted: _____

Aggregate accrued and unpaid Dividends, including Guaranteed Dividends if applicable: _____

AGGREGATE CONVERSION AMOUNT TO BE CONVERTED: _____

Please confirm the following information:

Conversion Price: _____

Number of shares of Common Stock to be issued: _____

Please issue the Common Stock into which the applicable Preferred Shares are being converted to Holder, or for its benefit, as follows:

☐ Check here if requesting delivery as a certificate to the following name and to the following address:

Issue to: _____

_____

_____

☐ Check here if requesting delivery by Deposit/Withdrawal at Custodian as follows:

DTC Participant: _____

DTC Number: _____

Account Number: _____

Date: _____ __,

Name of Registered Holder

By:
Name:
Title:

Tax ID: _____

Facsimile: _____

E-mail Address:

EXHIBIT II

ACKNOWLEDGMENT

The Company hereby acknowledges this Conversion Notice and hereby directs Vstock Transfer, LLC to issue the above indicated number of shares of Common Stock in accordance with the Transfer Agent Instructions dated _____, 2023 from the Company and acknowledged and agreed to by Vstock Transfer, LLC.

Chromocell Therapeutics Corporation

By: _____
Name:
Title:

EXHIBIT 3.5

CERTIFICATE OF DESIGNATION OF
SERIES C CONVERTIBLE REDEEMABLE PREFERRED STOCK OF
CHROMOCELL THERAPEUTICS CORPORATION

Pursuant to Section 151 of the General Corporation Law of the State of Delaware (the "**DGCL**"), Chromocell Therapeutics Corporation, a corporation organized and existing under the General Corporation Law of the State of Delaware (the "**Corporation**"), in accordance with the provisions of Section 103 thereof, does hereby submit the following:

WHEREAS, the Amended and Restated Certificate of Incorporation of the Corporation (the "**Certificate of Incorporation**") authorizes the issuance of up to 20,000,000 shares of preferred stock, par value $0.0001 per share, of the Corporation ("**Preferred Stock**"), issuable from time to time in one or more series, and expressly authorizes the Board of Directors of the Corporation (the "**Board**"), to fix the dividend rights, dividend rate, voting rights, conversion rights, rights and terms of redemption and liquidation preferences of any wholly unissued series of preferred stock and the number of shares constituting any series and the designation thereof, of any of them; and

WHEREAS, it is the desire of the Board, pursuant to its authority as aforesaid, to establish and fix the number of shares to be included in a new series of Preferred Stock and the designation, rights, preferences and limitations of the shares of such new series.

NOW, THEREFORE, BE IT RESOLVED, that the Board does hereby provide for a new series of Preferred Stock and does hereby in this Certificate of Designation (this "**Certificate of Designation**") establish and fix and herein state and express the designation, rights, preferences, powers, restrictions and limitations of such new series of Preferred Stock as follows:

1. Number and Designation. There shall be a series of Preferred Stock that shall be designated as the "Series C Convertible Redeemable Preferred Stock" of the Corporation (the "**Series C Preferred Stock**") and the number of authorized Shares constituting such series shall be 5,000 Shares. The number of authorized shares of Series C Preferred Stock may from time to time be increased (but not in excess of the total number of authorized shares of Preferred Stock, less all shares of any other series of Preferred Stock authorized at the time of such increase) or decreased (but not below the number of shares of Series C Preferred Stock then outstanding). Shares of Series C Preferred Stock that are redeemed, repurchased or otherwise acquired by the Corporation will be cancelled and shall revert to authorized but unissued shares of Preferred Stock undesignated as to series. The Corporation shall have the right to re-open this series and issue additional share of the Series C Preferred Stock either through public or private sales at any time and from time to time without notice to or the consent of holders of the Series C Preferred Stock. The additional shares of the Series C Preferred Stock will be deemed to form a single series with the Series C Preferred Stock issued under this Certificate of Designation. Each Share shall have a par value of $0.0001 per share. The powers, preferences, rights, qualifications, limitations and restrictions of the Series C Preferred Stock shall be as set forth herein.

2. Defined Terms. For purposes hereof, the following terms shall have the following meanings:

"**Affiliate**" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 of the Securities Act.

"**Attribution Parties**" has the meaning set forth in **Section 6.6**.

"**Board**" has the meaning set forth in the Recitals hereof.

"**Beneficial Ownership Limitation**" has the meaning set forth in **Section 6.6**.

"**Certificate of Designation**" has the meaning set forth in the Recitals hereof.

"**Certificate of Incorporation**" has the meaning set forth in the Recitals hereof.

"**Common Stock**" means the common stock, par value $0.0001 per share, of the Corporation.

"**Company Notice of Redemption**" has the meaning set forth in **Section 9.2**.

"**Company Redemption**" has the meaning set forth in **Section 9.1**.

"**Company Redemption Date**" has the meaning set forth in **Section 9.1**.

"**Company Redemption Notice Period**" has the meaning set forth in **Section 9.2**.

"**Conversion Notice**" has the meaning set forth in **Section 6.4**.

"**Corporation**" has the meaning set forth in the Preamble hereof.

"**Dividends**" has the meaning set forth in **Section 3**.

"**DGCL**" has the meaning set forth in the Preamble hereof.

"**Exchange Act**" means the Securities Exchange Act of 1934, as amended, or any successor federal statute, and the rules and regulations thereunder, which shall be in effect at the time.

"**Holder**" means a holder of Series C Preferred Stock.

"**Initial Issuance Date**" has the meaning set forth in **Section 3**.

"**Junior Securities**" has the meaning set forth in **Section 5.1**

"**Liquidation**" has the meaning set forth in **Section 5**.

"**New York Courts**" has the meaning set forth in **Section 11.1**.

"**Person**" means an individual, corporation, partnership, joint venture, limited liability company, governmental authority, unincorporated organization, trust, association or other entity.

"**Preferred Stock**" has the meaning set forth in the Recitals.

"**Preferred Stock Certificates**" has the meaning set forth in **Section 6.4**.

"**IPO**" means the sale, in a firm commitment public underwritten offering pursuant to an effective registration statement under the Securities Act, of securities of the Corporation, following which such securities (or any component part thereof) are listed on a national securities exchange registered with the SEC under Section 6(a) of the Exchange Act (or, alternatively, quoted on the OTC Bulletin Board or similar quotation system).

"**IPO Price**" means the price at which the Common Stock is sold to the public in the IPO.

"**Required Holders**" has the meaning set forth in **Section 8**.

"**SEC**" means the U.S. Securities and Exchange Commission.

"**Securities Act**" means the Securities Act of 1933, as amended, or any successor federal statute, and the rules and regulations thereunder, which shall be in effect at the time.

"**Series C Preferred Stock**" has the meaning set forth in **Section 1**.

"**Share**" means a share of Series C Preferred Stock.

"**Stated Value**" shall mean $1,000.00 per Share, subject to adjustment for stock splits, stock dividends, recapitalizations, reorganizations, reclassifications, combinations, subdivisions or other similar events occurring after the Initial Issuance Date with respect to the Shares.

"**Trading Day**" means a day on which the Trading Market for the Common Stock is open for trading.

"**Trading Market**" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange (or any successors to any of the foregoing).

"**Transfer Agent**" has the meaning set forth in **Section 6.4**.

3. Dividends. Holders shall not be entitled to receive any dividends in respect of the Series C Preferred Stock.

4. Voting Rights. Except as otherwise provided herein or as otherwise provided by the DGCL, the Series C Preferred Stock shall have no voting rights.

5. Rank; Liquidation.

5.1. Rank. The Series C Preferred Stock shall rank (i) senior to the Common Stock and any class or series of capital stock of the Corporation created specifically ranking by its terms junior to the Series C Preferred Stock (collectively, the "**Junior Securities**"); (ii) on parity with the Series B Convertible Preferred Stock of the Corporation, or any class or series of capital stock of the Corporation created specifically ranking by its terms on parity with the Series C Preferred Stock; and (iii) junior to any class or series of capital stock of the Corporation hereafter created specifically ranking by its terms senior to any Series C Preferred Stock, in each case, with respect to payment of dividends and distributions of assets upon liquidation, dissolution or winding up of the Corporation, whether voluntarily or involuntarily (a "**Liquidation**").

5.2. Liquidation. In the event of a Liquidation, the Holders of Shares then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, before any payment shall be made to the holders of Junior Securities by reason of their ownership thereof, an amount in cash equal to the aggregate Stated Value of all Shares held by such Holder.

5.3. Notice. In the event of any Liquidation, the Corporation shall, within five (5) days of the date the Board approves such action, or no later than five (5) days of any stockholders' meeting called to approve such action, or within five (5) days of the commencement of any involuntary proceeding, whichever is earlier, give each Holder written notice of the proposed action. Such written notice shall describe the material terms and conditions of such proposed action, including a description of the stock, cash and property to be received by the Holder upon consummation of the proposed action and the date of delivery thereof. If any material change in the facts set forth in the initial notice shall occur, the Corporation shall promptly give written notice to each Holder of such material change.

6. Conversion. Subject to the provisions of Section 6.6, at any time after the Initial Issuance Date, each share shall be convertible into validly issued, fully paid and non-assessable shares of Common Stock, on the terms and conditions set forth in this Section 6.

6.1. Holder's Conversion Right. Subject to the provisions of Sections 6.3 and 6.6, at any time or times on or after the closing of the IPO, each Holder shall be entitled to convert any portion of the outstanding Shares held by such Holder into an aggregate number of shares of Common Stock determined by (i) multiplying the number of Shares to be converted by the Stated Value of the Series C Preferred Stock, and then (ii) dividing the value obtained from the preceding clause (i) by 125% of the IPO Price. The Corporation shall not issue any fraction of a share of Common Stock upon any conversion. If the issuance would result in the issuance of a fraction of a share of Common Stock, the Corporation shall round such fraction of a share of Common Stock up to the nearest whole share. The Corporation shall pay any and all transfer, stamp, issuance and similar taxes, costs and expenses (including, without limitation, fees and expenses of the Transfer Agent (as defined below)) that may be payable with respect to the issuance and delivery of Common Stock upon conversion of any Conversion Amount.

6.2. Mandatory Conversion. If the Common Stock trades on a Trading Market for twenty (20) consecutive Trading Days above 175% of the IPO Price, the Series C Preferred Stock shall mandatorily convert into an aggregate number of shares of Common Stock determined by (i) multiplying the number of Shares issued and outstanding by the Stated Value of the Series C Preferred Stock, and then (ii) dividing the value obtained from the preceding clause (i) by 120% of the IPO Price. The Corporation shall provide written notice to the Holder of the mandatory conversion at least one (1) day prior to the date of mandatory conversion. All shares of capital stock issued hereunder by the Corporation shall be duly and validly issued, fully paid and nonassessable, and free and clear of all taxes, liens, charges and encumbrances with respect to the issuance thereof. Any fractional shares of Common Stock resulting from such determination shall be rounded up to the next whole number.

6.3. Lock-Up. The Shares and the shares of Common Stock received pursuant to Sections 6.1 and 6.2 shall be subject to customary lock-up provisions as requested by the underwriters of the IPO.

6.4. Mechanics of Holder's Conversion. Subject to Section 6.6, the conversion of any Share by the Holder pursuant to Section 6.1shall be conducted in the following manner:

(a) Holder's Conversion Right. To convert Shares into shares of Common Stock on any date (a "**Conversion Date**") pursuant to Section 6.1, a Holder shall deliver (whether via facsimile or electronic mail), for receipt on or prior to 11:59 p.m., New York time, on such date, an electronic copy of an executed notice of conversion of the Share(s) subject to such conversion in the form attached hereto as Exhibit I (the "**Conversion Notice**") to the Corporation. Within (3) Trading Days following a conversion of any such Shares as aforesaid, such Holder, if Holder is holding a physical certificate, shall surrender to a nationally recognized overnight delivery service for delivery to the Corporation the original certificates representing the Shares (the "**Preferred Stock Certificates**") so converted as aforesaid (or an indemnification undertaking with respect to the Shares in the case of its loss, theft or destruction). On or before the first (1st) Trading Day following the date of receipt of a Conversion Notice, the Corporation shall transmit by facsimile or electronic mail an acknowledgment of confirmation, in the form attached hereto as Exhibit II, of receipt of such Conversion Notice to such Holder and the Corporation's transfer agent (the "**Transfer Agent**"), which confirmation shall constitute an instruction to the Transfer Agent to process such Conversion Notice in accordance with the terms herein. On or before the first (1st) Trading Day following the date of receipt of a Conversion Notice (or such earlier date as required pursuant to the Exchange Act or other applicable law, rule or regulation for the settlement of a trade initiated on the applicable Conversion Date of such shares of Common Stock issuable pursuant to such Conversion Notice), the Corporation shall (1) provided, that the Transfer Agent is participating in the Depository Trust Corporation ("**DTC**") Fast Automated Securities Transfer Program, credit such aggregate number of shares of Common Stock to which such Holder shall be entitled to such Holder's or its designee's balance account with DTC through its Deposit/Withdrawal at Custodian system, or (2) if the Transfer Agent is not participating in the DTC Fast Automated Securities Transfer Program, issue and deliver (via reputable overnight courier) to the address as specified in such Conversion Notice, a certificate, registered in the name of such Holder or its designee, for the number of shares of Common Stock to which such Holder shall be entitled. If the number of Shares represented by the Preferred Stock Certificate(s) submitted for conversion is greater than the number of Shares being converted, then the Corporation shall, as soon as practicable and in no event later than three (3) Trading Days after receipt of the Preferred Stock Certificate(s) and at its own expense, issue and deliver to such Holder (or its designee) a new Preferred Stock Certificate representing the number of Shares not converted. The Person or Persons entitled to receive the shares of Common Stock issuable upon a conversion of Shares shall be treated for all purposes as the record holder or holders of such shares of Common Stock on the Conversion Date.

(b) Legend. Each Preferred Stock Certificate shall bear the following legend:

THE SECURITIES REFERENCED HEREIN HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH SALE OR DISTRIBUTION MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE CORPORATION THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933.

6.5. Effect of Conversion. All Shares converted as provided in this **Section 6** shall no longer be deemed outstanding as of the effective time of the applicable conversion and all rights with respect to such Shares shall immediately cease and terminate as of such time.

6.6. Beneficial Ownership Limitation. Notwithstanding anything to the contrary set forth herein, the Corporation shall not effect any conversion of the Series C Preferred Stock, and a Holder shall not have the right to convert any portion of the Series C Preferred Stock, to the extent that, after giving effect to the conversion, such Holder (together with such Holder's Affiliates, and any Persons acting as a group together with such Holder or any of such Holder's Affiliates (such Persons, "**Attribution Parties**")) would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by such Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon conversion of the Series C Preferred Stock with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which are issuable upon (i) conversion of the remaining, unconverted Series C Preferred Stock beneficially owned by such Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation subject to a limitation on conversion or exercise analogous to the limitation contained herein (including, without limitation, the Series C Preferred Stock) beneficially owned by such Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 6.6, beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. To the extent that the limitation contained in this Section 6.6 applies to any conversion pursuant to Section 6.1, the determination of whether the Series C Preferred Stock is convertible (in relation to other securities owned by such Holder together with any Affiliates and Attribution Parties) and of how many shares of Series C Preferred Stock are convertible shall be in the sole discretion of such Holder, and the submission of a Notice of Conversion shall be deemed to be such Holder's determination of whether the shares of Series C Preferred Stock may be converted (in relation to other securities owned by such Holder together with any Affiliates and Attribution Parties) and how many shares of the Series C Preferred Stock are convertible, in each case subject to the Beneficial Ownership Limitation. To ensure compliance with this restriction, each Holder will be deemed to represent to the Corporation each time it delivers a Notice of Conversion that such Notice of Conversion has not violated the restrictions set forth in this Section 6.6 and the Corporation shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 6.6, in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as stated in the most recent of the following: (i) the Corporation's most recent periodic or annual report filed with the Commission, as the case may be, (ii) a more recent public announcement by the Corporation or (iii) a more recent written notice by the Corporation or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request (which may be via email) of a Holder, the Corporation shall within one (1) Trading Day confirm orally and in writing to such Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Corporation, including the Series C Preferred Stock, by such Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "**Beneficial Ownership Limitation**" shall be 4.99% (or, upon election by a Holder prior to the issuance of any shares of Series C Preferred Stock, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon conversion of Series C Preferred Stock held by the applicable Holder. A Holder, upon notice to the Corporation, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 6.6 applicable to its Series C Preferred Stock; provided, that the Beneficial Ownership Limitation shall not in any event exceed 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 this Series C Preferred Stock held by the Holder and the provisions of this Section 6.6 shall continue to apply. Any such increase will not be effective until the 61st day after such notice is delivered to the Corporation and shall only apply to such Holder and no other Holder. The Beneficial Ownership Limitation shall not be waived by the Corporation or the Holder and upon issuance of the Series C Preferred Stock by the Corporation, and the purchase thereof by the Holder, each of the Corporation and the Holder shall be deemed to acknowledge such limitation and to agree not to waive it. The provisions of this Section 6.6 shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 6.6 to correct this Section 6.6 (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation contained herein or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this Section 6.6 shall apply to any successor or assign of a Holder. Notwithstanding the foregoing, upon mandatory conversion pursuant to Section 6.2, the shares of Common Stock issuable upon conversion of the Series C Preferred Stock subject to the mandatory conversion that would exceed the Beneficial Ownership Limitation shall be held in abeyance until issuable in accordance with the Beneficial Ownership Limitation.

7. Notices. Except as otherwise provided herein, all notices, requests, consents, claims, demands, waivers and other communications hereunder shall be in writing and shall be deemed to have been given: (a) when delivered by hand (with written confirmation of receipt); (b) when received by the addressee if sent by a nationally recognized overnight courier (receipt requested); (c) on the date sent by facsimile or e-mail of a PDF document (with confirmation of transmission) if sent during normal business hours of the recipient, and on the next business day if sent after normal business hours of the recipient; or (d) on the third (3^{rd}) day after the date mailed, by certified or registered mail, return receipt requested, postage prepaid. Such communications must be sent (a) to the Corporation, at its principal executive offices and (b) to any stockholder, at such holder's address at it appears in the stock records of the Corporation (or at such other address for a stockholder as shall be specified in a notice given in accordance with this **Section 7**).

8. Amendment and Waiver. No provision of this Certificate of Designation may be amended, modified or waived except by an instrument in writing executed by the Corporation and the holders of at least a majority of the then outstanding Shares (the "**Required Holders**"), and any such written amendment, modification or waiver will be binding upon the Corporation and each holder of Series C Preferred Stock; *provided*, *further*, that no amendment, modification or waiver of the terms or relative priorities of the Series C Preferred Stock may be accomplished by the merger, consolidation or other similar transaction of the Corporation with another corporation or entity unless the Corporation has obtained the prior written consent of the Required Holders in accordance with this **Section 8**.

9. Company Redemption.

9.1. On any date after the Initial Issuance Date (each, a "**Company Redemption Date**"), the Corporation, at its sole discretion, may redeem all or any portion of the then-outstanding Shares for cash (each, a "**Company Redemption**"); provided, however, that the Corporation may not affect any Company Redemption with respect to any Share on a Company Redemption Date that precedes the expiration of the lock-up period requested by the underwriters of the IPO without first obtaining the consent of the Holder of the Share subject to redemption). The redemption price per Share to be paid by the Corporation in connection with a Company Redemption shall be equal to the Stated Value of such Share.

9.2. To effect a Company Redemption, the Corporation shall send to the Holders a written notice (i) notifying the Holders of the election of the Corporation to redeem all or any portion of the Shares and the applicable Company Redemption Date, (ii) stating the place or places at which the Shares shall, upon presentation and surrender of the Preferred Stock Certificate(s) evidencing such Shares, be redeemed (and other instructions a Holder must follow to receive payment), and (iii) stating the redemption price therefor, as provided in Section 9.1 hereof (such notice, a "**Company Notice of Redemption**"). The Company Redemption Date selected by the Corporation shall be no less than three (3) Trading Days and no more than twenty (20) Trading Days after the date on which the Corporation provides the Company Notice of Redemption to the Holders (such period, a "**Company Redemption Notice Period**"). Each Holder shall be entitled to convert all or any portion of the Shares subject to the Company Notice of Redemption held by such Holder, after receiving the Company Notice of Redemption but prior to the end of the Company Redemption Notice Period, in accordance with Section 6.4 hereof.

9.3. From and after the time at which any Shares are called for redemption in accordance with Sections 9.1 and 9.2 above, such Shares shall cease to be outstanding, and the only right of the former Holders of such Shares, as such, will be to receive the applicable redemption price. The Shares redeemed by the Corporation pursuant to this Certificate of Designation shall, upon such redemption, be automatically retired and restored to the status of authorized but unissued shares of Preferred Stock.

10. [Reserved].

11. Miscellaneous.

11.1. Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Certificate of Designation shall be governed by and construed and enforced in accordance with the internal laws of the State of Delaware, without regard to the principles of conflict of laws thereof. All legal proceedings concerning the interpretation, enforcement and defense of the transactions contemplated by this Certificate of Designation (whether brought against a party hereto or its respective Affiliates, directors, officers, shareholders, employees or agents) shall be commenced in the state and federal courts sitting in the City of New York, Borough of Manhattan (the "**New York Courts**"). The Corporation and each holder hereby irrevocably submits to the exclusive jurisdiction of the New York Courts for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of such New York Courts, or such New York Courts are improper or inconvenient venue for such proceeding. The Corporation and each holder hereby irrevocably waive personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Certificate of Designation and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by applicable law. The Corporation and each holder hereby irrevocably waive, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Certificate of Designation or the transactions contemplated hereby. If any party shall commence an action or proceeding to enforce any provisions of this Certificate of Designation, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorneys' fees and other costs and expenses incurred in the investigation, preparation and prosecution of such action or proceeding.

11.2. Waiver. Any waiver by the Corporation or a Holder of a breach of any provision of this Certificate of Designation shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Certificate of Designation or a waiver by any other Holders. The failure of the Corporation or a Holder to insist upon strict adherence to any term of this Certificate of Designation on one or more occasions shall not be considered a waiver or deprive that party (or any other Holder) of the right thereafter to insist upon strict adherence to that term or any other term of this Certificate of Designation on any other occasion. Any waiver by the Corporation or a Holder must be in writing.

11.3. Severability. If any provision of this Certificate of Designation is invalid, illegal or unenforceable, the balance of this Certificate of Designation shall remain in effect, and if any provision is inapplicable to any Person or circumstance, it shall nevertheless remain applicable to all other Persons and circumstances. If it shall be found that any interest or other amount deemed interest due hereunder violates the applicable law governing usury, the applicable rate of interest due hereunder shall automatically be lowered to equal the maximum rate of interest permitted under applicable law.

11.4. Next Business Day. Whenever any payment or other obligation hereunder shall be due on a day other than a business Day, such payment shall be made on the next succeeding business day.

11.5. Headings. The headings contained herein are for convenience only, do not constitute a part of this Certificate of Designation and shall not be deemed to limit or affect any of the provisions hereof.

****

RESOLVED FURTHER, that the Interim Chief Executive Officer and Chief Financial Officer of the Corporation be and he hereby is authorized and directed to prepare and file this Certificate of Designation in accordance with the foregoing resolution and the provisions of Delaware law.

IN WITNESS WHEREOF, the undersigned have executed this Certificate of Designation this _____ of September, 2023.

CHROMOCELL THERAPEUTICS CORPORATION

By:_____
Name: Francis Knuettel II
Title: Interim Chief Executive Officer and Chief Financial Officer

EXHIBIT I

CHROMOCELL THERAPEUTICS CORPORATION

CONVERSION NOTICE

Reference is made to the Certificate of Designations of the Series C Convertible Redeemable Preferred Stock of Chromocell Therapeutics Corporation (the "**Certificate of Designations**"). In accordance with and pursuant to the Certificate of Designations, the undersigned hereby elects to convert the number of shares of Series C Preferred Stock, $0.0001 par value per share (the "**Preferred Shares**"), of Chromocell Therapeutics Corporation, a Delaware corporation (the "**Corporation**"), indicated below into shares of common stock, $0.0001 par value per share (the "**Common Stock**"), of the Corporation, as of the date specified below.

Date of Conversion: _____

Aggregate number of Preferred Shares to be converted: _____

Aggregate Stated Value of such Preferred Shares to be converted: _____

Aggregate accrued and unpaid Dividends and accrued and unpaid Late Charges with respect to such Preferred Shares and such Aggregate Dividends to be converted: _____

AGGREGATE CONVERSION AMOUNT TO BE CONVERTED: _____

Please confirm the following information:

Conversion Price: _____

Number of shares of Common Stock to be issued: _____

Please issue the Common Stock into which the applicable Preferred Shares are being converted to Holder, or for its benefit, as follows:

☐ Check here if requesting delivery as a certificate to the following name and to the following address:

Issue to: _____

_____

_____

☐ Check here if requesting delivery by Deposit/Withdrawal at Custodian as follows:

DTC Participant: _____

DTC Number: _____

Account Number: _____

Date: _____ ___,

Name of Registered Holder

By:

Name:
Title:

Tax ID: _____

Facsimile: _____

E-mail Address:

EXHIBIT II

ACKNOWLEDGMENT

The Corporation hereby acknowledges this Conversion Notice and hereby directs _____ to issue the above indicated number of shares of Common Stock in accordance with the Transfer Agent Instructions dated _____, 202__ from the Corporation and acknowledged and agreed to by _____.

[_____]

By: _____
Name:
Title:

EXHIBIT 4.4

CHROMOCELL THERAPEUTICS CORPORATION

Third Amended and Restated Promissory Note

Face Amount: $450,000.00 August 13, 2023
Purchase Price: $300,000.00 New York, NY

FOR VALUE RECEIVED, the undersigned Chromocell Therapeutics Corporation, a Delaware corporation (the "Borrower"), promises to pay to the order of 3i, LP, its successors or assigns (the "Lender"), FOUR HUNDRED FIFTY THOUSAND DOLLARS ($450,000) (the "Face Amount") by September 30, 2023 (the "Maturity Date") as provided herein or on such earlier date as this Third Amended and Restated Promissory Note (this "Note") is required or permitted to be repaid as provided hereunder, together with all accrued but unpaid interest thereon. Effective August 13, 2023, this Note amends and restates in its entirety that certain Promissory Note, dated February 4, 2022, as amended and restated by that certain Amended and Restated Promissory Note dated February 27, 2023 and as further amended and restated by that certain Second Amended and Restated Promissory Note dated June 23, 2023 (the "Amended Note"), in the principal sum of the Face Amount, previously issued by the Borrower to the Lender, and is intended to constitute an amendment and modification to, and otherwise to constitute a continuation of, the Amended Note, and is not intended and shall not be construed to constitute a novation thereof or of any obligation of any party thereunder. Borrower and Lender agree that no Event of Default existed under the Amended Note.

Section 1. Maturity; Interest. The Face Amount, all accrued and unpaid interest, and all other amounts payable under this Note shall be due and payable in cash at the Maturity Date; provided, that this Note may be prepaid in whole or in part at any time and from time-to-time upon three (3) prior business days' written notice, without penalty. Except as otherwise provided herein, this Note shall accrue interest equal to two percent (2%) of the Face Amount per month ($9,000) per month), beginning February 3, 2023 to the date the Note is satisfied in full, whether by prepayment, by repayment or otherwise.

Section 2. Repayment. Repayment of the Note shall occur as follows: (i) on the Maturity Date, Borrower shall repay Lender, in cash, one hundred percent (100%) of the Face Amount and interest due on this Note outstanding as of the date of repayment; or (b) if earlier to occur, on the closing of an underwritten public offering of securities of the Borrower (an "IPO"), Lender shall be required to present this Note in full (including all accrued interest thereon) to purchase securities in the IPO as legal tender therefor on a dollar-for-dollar basis based on the offering price of such securities to the public as set forth in the applicable registration statement. So long as no Event of Default has occurred, such repayment shall satisfy Borrower's obligations pursuant to this Note in full, and this Note shall be of no further force and effect.

Section 3. Transferability. This Note and any of the rights granted hereunder are freely transferable or assigned by Lender, in whole or in part, in its sole discretion; provided, there is notice to the Borrower.

Section 4. Event of Default.

(a) In the event that any one of the following events shall occur (whatever the reason and whether it shall be voluntary or involuntary or effected by operation of law or pursuant to any judgment, decree or order of any court, or any order, rule or regulation of any administrative or governmental body), it shall be deemed an Event of Default:

(i) Any default in the payment of the principal of, interest on or other charges in respect of this Note, or any other note issued by the Borrower for the benefit of the Lender or any other creditor, as and when the same shall become due and payable;

(ii) Borrower shall fail to observe or perform any other material covenant, agreement or warranty contained in, or otherwise commit any breach or default of any provision of this Note or any other agreement between the Borrower and the Lender or any other creditor;

(iii) There shall be a breach of any of the representations and warranties set forth in this Note or any transaction document executed contemporaneously herewith; or

(iv) Borrower, shall commence, or there shall be commenced against Borrower any applicable bankruptcy or insolvency laws as now or hereafter in effect or any successor thereto, or Borrower commences any other proceeding under any reorganization, arrangement, adjustment of debt, relief of debtors, dissolution, insolvency or liquidation or similar law of any jurisdiction whether now or hereafter in effect relating to Borrower or there is commenced against Borrower any such bankruptcy, insolvency or other proceeding which remains undismissed for a period of sixty (60) days; or Borrower is adjudicated insolvent or bankrupt; or any order of relief or other order approving any such case or proceeding is entered; or Borrower suffers any appointment of any custodian, private or court appointed receiver or the like for it or any substantial part of its property which continues undischarged or unstayed for a period of sixty (60) days; or Borrower makes a general assignment for the benefit of creditors; or Borrower shall fail to pay or shall state that it is unable to pay or shall be liable to pay, its debts as they become due or by any act or failure to act expressly indicate its consent to, approval of or acquiescence in any of the foregoing; or any corporate or other action is taken by the Borrower for the purpose of effecting any of the foregoing.

(b) Upon the occurrence of an Event of Default, the Lender shall give the Borrower notice of such occurrence, at which time the Borrower shall have five (5) business days from receipt of such notice to pay the outstanding amount of the Note in full. In the event that full payment is not made upon the expiry of the five (5) day period, a default penalty equal to two percent (2%) of the Face Amount per month during the period of Default (the "Default Penalty"). Lender may then, at its sole discretion declare the entire then outstanding Face Amount of this Note and the Default Penalty immediately due and payable (a "Default Declaration"), in which event the Lender may, at its sole discretion take any action it deems necessary to recover amounts due under this Note.

(c) Upon the occurrence of an Event of Default, the Lender shall be entitled to recover, in addition to the Face Amount of the Note and the Default Penalty, all of its costs, fees (including without limitation, reasonable attorney's fees and disbursements), and expenses relating collection and enforcement Note, including all costs and expenses incurred by it in enforcing its rights under the Note and any transaction document entered into contemporaneously herewith.

(d) The failure of Lender to exercise any of its rights hereunder in any particular instance shall not constitute a waiver of the same or of any other right in that or any subsequent instance with respect to Lender or any subsequent holder. **BORROWER ACKNOWLEDGES THAT THE LOAN EVIDENCED BY THIS NOTE IS A COMMERCIAL TRANSACTION. BORROWER FURTHER WAIVES DILIGENCE, DEMAND, PRESENTMENT FOR PAYMENT, NOTICE OF NONPAYMENT, PROTEST AND NOTICE OF PROTEST, AND NOTICE OF ANY RENEWALS OR EXTENSIONS OF THIS NOTE. BORROWER ACKNOWLEDGES THAT IT MAKES THIS WAIVER KNOWINGLY, VOLUNTARILY, WITHOUT DURESS AND ONLY AFTER CONSIDERATION OF RAMIFICATION THIS WAIVER WITH ITS ATTORNEYS.** Lender may immediately and without expiration of any grace period enforce any and all of its rights and remedies hereunder and all other remedies available to it under applicable law. The remedies available to the Lender upon the occurrence of an Event of Default shall be cumulative.

Section 5. Notices. Any and all notices, service of process or other communications or deliveries required or permitted to be given or made pursuant to any of the provisions of this Note shall be deemed to have been duly given or made for all purposes when hand delivered or sent by certified or registered mail, return receipt requested and postage prepaid, overnight mail or courier as follows:

If to Lender, at:

3i, LP
140 Broadway FL 38
New York, NY 10005
Attn: Maier Tarlow, Manager

Or such other address as may be given to the Borrower from time to time

If to Borrower, at:

Chromocell Therapeutics Corporation
4400 Route 9 South, Suite 1000
Freehold, NJ 07728
Attn: Christian Kopfli, CEO

Or such other address as may be given to the Lender from time to time

Section 6. Usury. This Note is hereby expressly limited so that in no event whatsoever, whether by reason of acceleration of maturity of the loan evidenced hereby or otherwise, shall the amount paid or agreed to be paid to the Lender hereunder for the loan, use, forbearance or detention of money exceed that permissible under applicable law. If at any time the performance of any provision of this Note or of any other agreement or instrument entered into in connection with this Note involves a payment exceeding the limit of the interest that may be validly charged for the loan, use, forbearance or detention of money under applicable law, then automatically and retroactively, ipso facto, the obligation to be performed shall be reduced to such limit, it being the specific intent of the Borrower and the Lender that all payments under this Note are to be credited first to interest as permitted by law, but not in excess of *(i)* the agreed rate of interest set forth herein or therein or*(ii)* that permitted by law, whichever is the lesser, and the balance toward the reduction of principal. The provision of this Section 6 shall never be superseded or waived and shall control every other provision of this Note and all other agreements and instruments between the Borrower and the Lender entered into in connection with this Note. To the extent permitted by applicable law, Borrower waives any right to assert the defense of usury.

Section 7. Governing Law; Waiver of Jury Trial. This Note and the provisions hereof are to be construed according to and are governed by the laws of the State of Delaware, without regard to principles of conflicts of laws thereof. Borrower agrees that the New York State Supreme Court located in the County of New York, State of New York shall have exclusive jurisdiction in connection with any dispute concerning or arising out of this Note or otherwise relating to the parties relationship. In any action, lawsuit or proceeding brought to enforce or interpret the provisions of this Note and/or arising out of or relating to any dispute between the parties, Lender shall be entitled to recover all of its costs and expenses relating collection and enforcement of this Note (including without limitation, reasonable attorney's fees and disbursements) in addition to any other relief to which Lender may be entitled and all costs of collection, including any legal fees associated with this Note will be paid by the Borrower. Each party agrees that any process or notice to be served or delivered in connection with any action, lawsuit or proceeding brought hereunder may be accomplished in accordance with the notice provisions set forth above or as otherwise provided by applicable law. **BORROWER HEREBY WAIVES TRIAL BY JURY IN ANY ACTION, PROCEEDING, CLAIM OR COUNTERCLAIM, WHETHER IN CONTRACT OR TORT, AT LAW OR IN EQUITY, ARISING OUT OF OR IN ANY WAY RELATING TO THIS NOTE.**

Section 8. Successors and Assigns. Subject to applicable laws, this Note and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of Borrower and the successors and assigns of Lender.

Section 9. Amendment. This Note may be modified or amended or the provisions hereof waived only with the written consent of Lender and Borrower.

Section 10. Severability. Wherever possible, each provision of this Note shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Note shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Note.

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, Borrower and Lender have caused this Note to be executed by a duly authorized officer as of the date first above indicated.

BORROWER:

Chromocell Therapeutics Corporation

By: /s/ Francis Knuettel II
Name: Francis Knuettel II
Title: Chief Financial Officer

LENDER:

3i, LP

By: /s/ Maier J. Tarlow
Name: Maier J. Tarlow
Title: Manager on Behalf of the GP

[Signature Page to Third Amended and Restated Promissory Note]

EXHIBIT 4.5

CHROMOCELL THERAPEUTICS CORPORATION

August 17, 2023

3i, LP
140 Broadway FL 38
New York, NY 10005

Re: Second Amended and Restated Promissory Note

Dear Sir:

Reference is made to that certain Second Amended and Restated Promissory Note (as modified from time to time, the "Note"), effective as of June 23, 2023, between Chromocell Therapeutics Corporation, a Delaware corporation (the "Company"), and 3i, LP and its successors or assigns (the "Lender"), attached hereto as Exhibit A. Capitalized terms used but not defined herein shall have the meanings given to them in the Note in each case as of the date hereof.

This letter agreement (this "Letter Agreement") confirms our recent discussions about, among other matters, certain modifications to the Note.

1. The Parties agree to amend and restate the Note, substantially in the form attached hereto as Exhibit B, effective August 13, 2023.

2. In consideration thereof, the Company agrees to issue 30,000 shares (the "Leak-Out Shares") of common stock, par value $0.0001 per share, of the Company (the "Common Stock") to Lender. Lender hereby agrees that, Lender will not sell, dispose or otherwise transfer, directly or indirectly, any Leak-Out Shares until the date shares of Common Stock are listed on the Company's principal Trading Market (as defined below) (the "Listing Date"). Further, Lender hereby agrees that, for a period commencing on the Listing Date (inclusive), and expiring on the date that Lender does not beneficially own any Leak-Out Shares (the "Leak-Out Period"), Lender will not sell, dispose or otherwise transfer, directly or indirectly, on any Trading Day (as defined below) during the Leak-Out Period (any such date, a "Date of Determination"), any Leak-Out Shares in an amount representing more than 7.5% of the trading volume of the Common Stock as reported by Bloomberg, LP on each applicable Date of Determination. Lender agrees that the Company may have stop transfer instructions placed with the Company's transfer agent against transfer of any Leak-Out Shares held by Lender except in compliance with this Section 2. The Company may waive the limitations set forth in this Section 2 at any time in its sole discretion. Notwithstanding anything herein to the contrary, during the Leak-Out Period, Lender may, directly or indirectly, sell or transfer Leak-Out Shares to any Affiliate (as defined under the Securities Exchange Act of 1934, as amended); provided, that as a condition to any such sale or transfer an authorized signatory of the Company and such Affiliate duly execute and deliver a leak-out agreement no less restrictive to the Affiliate than this Section 2 (an "Affiliate Agreement", and each such transfer a "Permitted Transfer") and, subsequent to a Permitted Transfer, sales by Lender and all Affiliates (other than any such sales that constitute Permitted Transfers) shall be aggregated for all purposes of this Section 2 and all Affiliate Agreements. The provisions of this Section 2 are intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not intended for the benefit of, nor may any provision hereof be enforced by, any other person or entity. "Trading Day" means a day on which the principal Trading Market is open for trading. "Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (or any successors to any of the foregoing).

3. The Company further agrees that it shall prepare and file a prospectus to be included in the Company's Registration Statement on Form S-1 (the "IPO Registration Statement"), in connection with any Qualified IPO or Non-Qualified IPO of the Company covering the resale by the Lender of all Leak-Out Shares. In addition, the Company shall use its commercially reasonable efforts to keep effective the IPO Registration Statement until such time as: (i) all of the Leak-Out Shares have been disposed of pursuant to such effective IPO Registration Statement, or (ii) all of the Leak-Out Shares may be resold by Lender without restriction (including, without limitation, volume limitations or manner-of-sale restrictions) pursuant to Rule 144 (taking account of any Commission position with respect to "affiliate" status) and without the need for current public information required by Rule 144(c)(1) (or Rule 144(i)(2), if applicable).

This Letter Agreement is limited as written. As of the date first written above, each reference in the Note to "this Note," "hereunder," "hereof," "herein," or words of like import, shall refer to the Note as modified thereby, and this Letter Agreement and the Note shall be read together and construed as a single agreement. The execution, delivery and effectiveness of this Letter Agreement shall not, except as expressly provided herein, (A) waive or modify any right, power or remedy under, or any other provision of the Note or (B) commit or otherwise obligate any party to enter into or consider entering into any other amendment, waiver or modification of the Note.

All communications and notices hereunder shall be given as provided in the Note. This Letter Agreement (a) shall be governed by and construed in accordance with the law of the State of New York, (b) is for the exclusive benefit of the parties hereto, and together with the Note, constitutes the entire agreement of such parties, superseding all prior agreements among them, with respect to the subject matter hereof, (c) may be modified, waived or assigned only in writing and only to the extent such modification, waiver or assignment would be permitted under the Note (and any attempt to assign this Letter Agreement without such writing shall be null and void), (d) is a negotiated document, entered into freely among the parties upon advice of their own counsel, and it should not be construed against any of its drafters and (e) shall survive the satisfaction or discharge of the amounts owing under the Note. The fact that any term or provision of this Letter Agreement is held invalid, illegal or unenforceable as to any person in any situation in any jurisdiction shall not affect the validity, enforceability or legality of the remaining terms or provisions hereof or the validity, enforceability or legality of such offending term or provision in any other situation or jurisdiction or as applied to any person.

Kindly confirm your agreement with the above by signing in the space indicated below and by PDFing a partially executed copy of this letter to the undersigned, and which may be executed in identical counterparts, each of which shall be deemed an original but all of which shall constitute one and the same agreement.

Very truly yours,

CHROMOCELL THERAPEUTICS CORPORATION

By: /s/ Francis Knuettel II
Name: Francis Knuettel II
Title: Interim Chief Executive Officer & Chief Financial Officer

AGREED AND ACCEPTED:

3i, LP

By: /s/ Maier J. Tarlow
Name: Maier J. Tarlow
Title: Manager on Behalf of the GP

Exhibit A

Second Amended and Restated Promissory Note

(see attached)

Exhibit B

Third Amended and Restated Promissory Note

(see attached)

EXHIBIT 10.2

CHROMOCELL THERAPEUTICS CORPORATION
AMENDED AND RESTATED EMPLOYMENT AGREEMENT

This Amended and Restated Employment Agreement (the "Agreement") is made and entered into this 28th day of July, 2023 by and between Chromocell Therapeutics Corporation ("CTC" or the "Company") and Christian Kopfli, an individual who resides at 44 Gramercy Park North, New York City, NY ("Executive"). Collectively, the Company and Executive may be referred to herein as the "Parties" or each individually as a "Party."

RECITALS

WHEREAS, the Company desires to continue the employment of Executive and Executive desires and is ready, willing and able to be employed by the Company;

WHEREAS, the Company and Executive had executed an Employment Agreement dated January 9, 2023 (the "Initial Agreement") and it is the intent of the Company and Executive to supersede in its entirety the Initial Agreement and the Initial Agreement, which, upon the full execution and delivery of this Agreement, shall be null and void and shall no longer have any further force or effect; and

WHEREAS, this Agreement clarifies the mutual expectations of the continuing engagement between Executive and the Company.

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

1. **Term.** The Company shall employ Executive and Executive accepts full time employment as Vice Chairman and Chief Strategy Officer of the Company on the terms and conditions set forth herein.

Executive's employment under this Agreement shall be for an unspecified term (the "Term") on an "at will" basis. Nothing in the Company's policies, actions or this Agreement shall be construed to alter the "at will" nature of Executive's status with the Company, and Executive understands that the Company may terminate Executive's employment at any time for any reason or for no reason, provided that it is not terminated in violation of state or federal law.

At the beginning of the Term, the Company acknowledges and agrees to Executive's hybrid remote work arrangement wherein Executive is primarily working from his residence. Company and Executive will agree on a definitive arrangement aligned with the schedules of other Senior Executives of the Company within six months after the IPO (as defined below).

2. **Duties and Responsibilities.** During the Term of this Agreement, Executive shall devote substantially all of his time, energy and skills to the business of the Company. Executive shall perform his duties as the board of directors of the Company (the "Board") may require from time to time. Executive shall be subject to the duly-issued instructions of the Board regardless of whether he supported each such instruction in his capacity as a Board member. Executive shall work faithfully and to the best of his ability and efforts promoting the business interests of the Company. Executive will discharge his duties at all times in accordance with any and all policies of the Company and will report to, and be subject to the direction of, the Board.

Executive shall not engage in any other business duties or pursuit whatsoever, or directly or indirectly render any services of a business, commercial or professional nature to any other person or organization, whether for compensation or otherwise, without the prior written consent of the Board except for: (a) boards of directors of private companies and not-for-profit organizations on which Executive currently serves; and (b) other boards of directors to which Executive shall not devote on average more than 5 hours of service per month in the aggregate. For the avoidance of doubt, effective as of the date of an IPO, Executive shall cease to serve as Chief Executive Officer of Chromocell Corporation, but he may continue to serve on the Board of Directors of Chromocell Corporation, including service as its Board chair. For purposes of this Agreement, an "IPO" shall mean the date as of which the Board approves a funded budget with appropriately established milestones subsequent to the effective date of a registration statement on Form S-1 under the Securities Act of 1933, as amended.

The expenditure of reasonable amounts of time for education, charitable or professional activities shall not be deemed a breach of this Agreement if those activities do not materially interfere with the services required under this Agreement. Furthermore, this Agreement shall not be interpreted to prohibit Executive from making passive personal investments if those activities do not materially interfere with the services required under this Agreement and if those investments do not create any conflict of interest with Executive's duties to the Company; provided, however, that Executive may invest in index funds without regard to conflicts of interest.

3. **Compensation and Benefits.**

(a) *Base Salary*. From September 1, 2022 onward, Executive shall receive a salary (the "Salary") of $22,916.67 each month, $5,000.00 per month (but not less than $1,125.00 per week) of which shall be paid immediately in cash and the balance of which shall be accrued. The amount paid in cash will be subject to deductions for federal, state and local income and employment taxes and other withholdings as required by law. Any amount accrued will (1) be payable at the earliest of (i) 3 days after the IPO, (ii) upon the sale of the Company or (iii) upon liquidation of the Company or (2) become immediately due upon the declaration, voluntary or involuntary, of a bankruptcy action and paid at the time or times permitted by a bankruptcy court and pursuant to a plan termination within the meaning of Treasury Regulation Section 1.409A-3(j)(4)(ix). Company acknowledges that accrued Salary shall be paid in preference to other outstanding liabilities with respect to items (1)(iii) and (2) in the preceding sentence.

Executive's Salary shall be reviewed annually and may be adjusted by the Board in its sole discretion. Within 120 days after the IPO, the Board will retain the services of a compensation consultant to review and assess Executive's compensation package. The Board will consider making adjustments based on the report by the compensation consultant.

Except as otherwise provided above, Executive's Salary shall be paid in accordance with the Company's regular payroll practices and applicable law in effect from time to time.

(b) *Equity Grant(s)*. Executive shall receive an option to acquire 200,000 shares of Company's Common Stock that will vest as follows: 20,000 shares will vest as of October 1, 2022; with 20,000 shares vesting each 3-month anniversary thereafter. The option shall have an exercise price equal to the fair market value of the Company's Common Stock on the date of grant and shall expire on the 10th anniversary of the date of grant. Executive acknowledges that he received the aforementioned options pursuant to the Initial Agreement.

(c) *Bonus.* Effective for 2023, each January the Board shall, in concert with Executive, establish Company aggregate and Executive performance goals and objectives (the "Goals") for the year. Full achievement of the Goals will result in additional compensation for the year of no less than 50% of the Executive's annualized Salary (the "Bonus"). Each year, any Bonus shall be paid no later than the March 15 following the end of the applicable year. The Board shall, in its sole discretion, determine the final amount payable as Bonus based upon results and performance relative to the Goals, together with such other and further factors as the Board deems relevant. The extent to which performance and other objectives are met will be determined by the Board in its sole discretion and good faith. The Board may increase the Bonus in recognition of performance in excess of performance objectives and any Bonus for 2022 shall be solely at the Board's discretion. Except as otherwise provided in Section 6, no Bonus shall be earned for a year unless the Executive remains employed through the date of payment.

(d) *Benefits.* Executive shall participate in benefits offered to the Company's other executives. The Company retains the right to modify, in its sole discretion and from time to time, the Company's benefits.

(e) *Leave/Absence*. Executive shall be entitled to unlimited paid time off, subject to the Company's policy as from time to time amended in its discretion.

(f) *Out-of-Pocket Expenses*. The Company shall reimburse Executive for all reasonable "out-of-pocket" expenses incurred by Executive in the conduct of the Company's business. Such reimbursement shall be in accordance with applicable policies and procedures.

4. **Compliance with Laws and Policies.** As a Company employee, Executive agrees that he must act in conformity with the law at all times, without exception. Executive will abide by the Company rules, regulations and policies as in effect from time to time, including, but not limited to, any of those uploaded to the "Corporate Governance" section of the Company's website.

5. **D&O Insurance.** The Company will undertake commercially reasonable efforts to bind a policy for directors and officers ("D&O") insurance at the time of an IPO. The Company anticipates standard D&O coverage but cannot make any guarantees until the IPO is completed and the market for coverage has been explored. Any D&O coverage acquired by the Company shall include Executive.

6. **Termination.**

(a) *Termination for Cause*. If the Agreement is terminated by Company for "Cause" (as defined below) or the Executive terminates other than for Good Reason (as defined below), then (1) the Company shall compensate Executive with a pro rata portion of the Salary (but for the avoidance of doubt not including any Bonus) due for the month in which services are terminated and (2) Executive shall not be entitled to any further compensation for services.

(b) *Other Termination*. The provisions of this Section 6(b) apply in the event of a termination of this Agreement other than pursuant to Section 6(a) including by Executive for Good Reason. No amount payable under this Section 6(b) shall be paid unless Executive shall execute, deliver and not revoke the Company's standard release of claims agreement within 60 days of such termination of services, attached hereto as Exhibit A. If the 60-day period referenced in the preceding sentence spans two taxable years, payment shall only commence in the second taxable year.

(1) The Company will continue payment of Salary at the rate in effect immediately prior to the termination of the Agreement for a period of six months.

(2) If and only if the target for any Bonus has been set for the applicable year of termination of services, Executive shall be entitled to receive 50% of the Executive's annualized Salary, prorated using a 365-day year from January 1 of the year of termination and through the date of termination. Any amount payable pursuant to this Section 6(b)(2) shall be paid no earlier than January 1 nor later than March 15 of the year following the year of termination.

(3) Time-based vesting with respect to any outstanding equity awards shall be accelerated by treating the vesting schedule as of the date of termination as the schedule as of such date plus an additional six months of service.

(c) *Suspension of Payment*. Notwithstanding anything herein to the contrary, if Executive is in material violation of any provision of this Section 6 or Section 7 below, the Company shall have no obligation to make payment(s) under Section 6(b) of this Agreement if the Company has determined in good faith that such a violation(s) has occurred or is occurring. If it is later established through a judicial proceeding that no such violation occurred, the Company shall agree to pay to Executive any such amount withheld from or not paid during such period to the extent consistent with Section 409A ("Section 409A") of the Internal Revenue Code (the "Code").

(d) *No Mitigation*. Executive will be under no obligation to mitigate damages by seeking other employment or service relationships, and there will be no offset against the amounts due Executive under this Agreement, except as specifically provided in Section 6(c) above or for any other claims that the Company may have against Executive and to the extent consistent with Section 409A.

(e) *Definitions*. For purposes of this Agreement:

(1) "Cause" means any of the following with respect to Executive: (i) engaging in any acts of fraud, theft or embezzlement involving the Company; (ii) conviction, including any plea of guilty or nolo contendere, of any felony crime that is relevant to Executive's position(s) with the Company; and (iii) material violation of this Agreement, which is materially damaging to the reputation or business of the Company; provided, however, that prior to terminating Executive for Cause, the Board must, if possible under the given circumstances, first (A) provide notice to Executive specifying in reasonable detail the condition giving rise to Cause for termination no later than the 10th day following the occurrence of that condition, (B) provide Executive a period of 20 days to remedy the condition, if subject to remedy, and so specify in the notice and (C) terminate the employment or service relationship for Cause within 10 days following the expiration of the period to remedy if the Executive fails to remedy the condition.

(2) "Good Reason" means any of the following with respect to Executive: (i) an involuntary material reduction in Salary; (ii) an involuntary material diminution in authority, duties or responsibilities; (iii) the failure of the Company to obtain or maintain D&O coverage, as described in Section 5; or (iv) the Company's breach of a material provision of this Agreement, provided, however, that prior to Executive terminating for Good Reason, Executive must, if possible under the given circumstances, first (A) provide notice to the Company specifying in reasonable detail the condition giving rise to termination for Good Reason no later than the 10th day following the occurrence of that condition, (B) provide the Company a period of 30 days to remedy the condition, if subject to remedy, and so specify in the notice and (C) terminate the employment or service relationship for Good Reason within 10 days following the expiration of the period to remedy if the Company fails to remedy the condition.

7. **Restrictive Covenants.** The Parties hereby agree as follows.

(a) *Client of the Company*. For purposes hereof, the term "Client" shall mean any Client of the Company: (1) to whom the Company or any officer, director, member, employee, contractor, affiliate, representative or agent of the Company provided any services or products of any kind; or (2) entities with whom the Company conducts business, including but not limited manufacturers, distributors, firms or marketers of any kind prior to or during the Term.

(b) *Non-Solicitation*. During the Term of this Agreement and for a period of 12 months after the termination of this Agreement for any reason, whether voluntary or involuntary, Executive shall not on Executive's own behalf or on the behalf of any other person, entity or other third party, directly or indirectly: (1) cause any person to leave their employment with the Company (other than terminating subordinate employees or employees in the course of his duties for the Company); (2) hire, employ or otherwise engage any individual or entity who is an employee, independent contractor or agent of the Company, or solicit or contact any such individual or entity to quit or change such individual's or entity's relationship with the Company; (3) contact, call upon or solicit any of the Clients of the Company for the purpose of (i) providing any services to such entity or (ii) diverting or encouraging such entities or Clients of the Company to discontinue, in whole or in part, all or any portion of their relationship with, and services or products received from the Company; or (4) hire, employ or otherwise engage any individual or entity who is or was, an employee, independent contractor, representative or agent of the Company. Item (4) in the preceding sentence shall not restrict Executive from hiring, employing or otherwise engaging any individual or entity who is or was an employee, independent contractor, representative or agent of the Company so long as the hiring or engagement by Executive does not interfere with that person or entity's service to Company.

(c) *Proprietary Information*. Executive will have access to information of the Company that the Company considers sensitive, proprietary and/or otherwise confidential (the "Proprietary Information"). Proprietary Information includes, without limitation, trade secrets and similarly protected proprietary, secret and/or confidential information about the Company's business that is not generally known by others with whom the Company competes or does business, or with whom it plans to compete or do business, and any and all information, publicly known in whole or in part or not, which, if disclosed by the Company, would assist in competition against them, including but not limited to (1) the products, services, technical data, methods, processes, know-how, developments, inventions and formulae of the Company, (2) the development, research, testing, marketing and financial activities and strategic plans of the Company, (3) their costs and sources of supply, (4) the identity and special needs of the Clients and prospective clients, customers and portfolio companies of the Company and (5) the vendors, suppliers and other organizations with whom the Company has business relationships and the nature and substance of those relationships. Proprietary Information also includes any confidential or proprietary information that the Company may receive or has received from Clients, prospective clients or business partners with any understanding, express or implied, that the information would not be disclosed. Executive's own compensation does not constitute Proprietary Information. Executive will maintain the confidentiality of all Proprietary Information both before and after the Term except as otherwise specifically instructed by the Company.

(d) *Non-Competition.* To protect the Company's trade secrets, goodwill and Proprietary Information, Executive agrees that, during the Term of this Agreement and for a period of 12 months after the termination of this Agreement for any reason, whether voluntary or involuntary, Executive shall not directly or indirectly engage (whether such engagement is as an employee, consultant, proprietor, partner, director or otherwise) in any business that competes against the Company by owning, licensing, developing, marketing, manufacturing, producing, selling or distributing products, technologies, therapies or services in any way related to the therapeutic business of the Company, including all patents, pre-clinical and Phase I study results and data, and trade secrets related to the CC8464 compound, transferred by Chromocell Corporation to the Company. It is agreed that ownership of no more than 1% of the outstanding voting stock of a publicly traded corporation shall not constitute a violation of this provision.

(e) *Reasonable Restrictions*. Executive agrees that the limitations as to time, geographic area and scope of activity to be restricted pursuant to this Agreement are reasonable and are not greater than necessary to protect the goodwill or other business interests of the Company. Executive further agrees that such interests are worthy of protection and that the scope of activity to be restrained as detailed herein is reasonable and is not greater than the hardship Executive may experience by complying with its terms. Executive expressly waives the right to protest the reasonableness of the restrictions contained within this Section 7.

8. **Remedy for Breach.** Executive acknowledges that each Party would be irreparably injured by a violation of this Agreement and agrees that the other Party shall be entitled to an injunction restraining the other Party from any actual or threatened breach of the provisions contained herein or to any other appropriate equitable remedy without any bond or other security being required. The Parties further consent to court enforcement of the specific language of this Agreement. Unless expressly provided otherwise, each right and remedy in this Agreement is in addition to any other right or remedy, at law or in equity, and the exercise of one right or remedy will not be deemed a waiver of any other right or remedy.

9. **Miscellaneous Provisions.**

(a) *Governing Law.* This Agreement and the interpretations hereof, shall be governed exclusively by its terms and by the laws of the State of New York, without reference to its principles of conflicts of laws.

(b) *Withholding.* All amounts payable as compensation shall be subject to deductions for taxes and other withholdings as required by law.

(c) *Section 409A*. It is the intention of the Parties that no payment or entitlement pursuant to this Agreement will give rise to any adverse tax consequences to any person pursuant to Section 409A and this Agreement shall be interpreted, applied and, to the minimum extent necessary, amended to achieve that intention. It is further intended that payments hereunder satisfy, to the greatest extent possible, the exemption from the application of Section 409A provided under Treasury Regulation Section 1.409A-1(b)(4) (as a "short-term deferral"). To the extent (1) any payments or benefits to which Executive becomes entitled under this Agreement, or under any agreement or plan referenced herein, constitute deferred compensation subject to Section 409A that are payable on "separation from service" (as defined under Section 409A) and (2) Executive is deemed at the time of termination of employment to be a "specified employee" under Section 409A, then such payments shall not be made or commence until the earlier of (i) the date that is immediately following the expiration of the six-month period measured from the date of Executive's "separation from service" (as defined under Section 409A) from the Company or (ii) the date of Executive's death following such separation from service. Upon the expiration of the applicable deferral period, any payments that would have otherwise been made during that period (whether in a single sum or in installments) in the absence of this provision shall be paid to Executive (or his estate or legal representative, as applicable) in one lump sum (without interest). Each installment of any payments provided hereunder shall constitute separate "payments" for purposes of Treasury Regulation Section 1.409A-2(b)(2)(iii). Except as otherwise expressly provided herein, to the extent any expense reimbursement or the provision of any in-kind benefit under this Agreement is determined to be subject to Section 409A, the amount of any such reimbursement or benefit in one calendar year shall not affect any reimbursement or benefit in any other taxable year, in no event shall any such reimbursement or benefit be provided after the last day of the calendar year following the calendar year in which Executive incurred such expense and in no event shall any right to reimbursement or the provision of any in-kind benefit be subject to liquidation or exchange for another benefit. Any payments to be made under this Agreement upon a termination of employment will only be made upon a "separation from service" (as defined under Section 409A).

(d) *Notice.* Except as otherwise specified herein, any notice required or permitted to be given under this Agreement shall be sufficient if in writing and if sent by registered mail to the Company at its principal offices or to Executive at the last address provided by Executive in writing with the Company, or via email with read-receipt obtained from the other Party. Either Party may change the relevant address by notifying the other Party of such change in writing at any time. Any such notice shall be effective when received.

(e) *Survival and Severability.* Provisions of this Agreement, which by their nature and/or terms extend beyond the termination of this Agreement shall continue in effect after termination of this Agreement, regardless of the reason, and whether such termination is voluntary or involuntary. If any provision of this Agreement (or portion thereof) is held to be invalid or unenforceable, such invalidity or unenforceability shall not affect any other provision (or portion thereof) of this Agreement that can be given effect without the invalid provision. In such event, all Parties agree that the court making such determination shall have the power to alter or amend such provision so that it shall be enforceable to the maximum extent permitted by law.

(f) *Waiver of Rights*. Failure or omission by the Company at any time to enforce or require strict or timely compliance with any provision of this Agreement shall not affect or impair that provision in any way or the rights of the Company to avail itself of remedies it may have in respect to any breach of that provision. Any waiver or consent given by the Company shall be effective only as to that instance and will not be construed as a bar to or waiver of any right on any other occasion.

(g) *Assignment and Successors*. Neither this Agreement nor any of the rights, interests or obligations hereunder shall be assigned by either Party without the prior written consent of the other Party; provided, however, that the Company may, without notice to Executive, (1) assign this Agreement to any entity that acquires all or substantially all of its assets or its business that is the subject hereof or (2) assign this Agreement to any entity that is owned by the Company. The provisions of this Agreement will inure to the benefit of and be binding on the Parties and their respective representatives, successors and assigns. Nothing contained in this Agreement shall be construed, nor is intended to give any rights or benefits to any person or entity, other than to the Company and Executive.

(h) *Counterparts and Headings*. This Agreement and any amendment hereof may be executed in any number of counterparts and by each Party on a separate counterpart, each of which, when so executed and delivered (which delivery may be via telefax or other electronic means), shall be deemed to be an original and all of which taken together shall constitute one and the same instrument. The headings in this Agreement are inserted for convenience only and are in no way intended to describe, interpret, define or limit the scope, extent or intent of this Agreement or any provision thereof. Words of any gender used in this Agreement shall be held to include any other gender, and words in the singular shall be held to include the plural when the sense requires.

(i) *Entire Agreement and Modification*. This Agreement constitutes the entire agreement between the Parties and supersedes all previous agreements on this matter. There are no other written or oral agreements, representations or understandings with respect to the subject matter of this Agreement. This Agreement may only be modified by the mutual written and signed agreement of both Parties hereto. No oral statement shall in any manner modify or otherwise affect the terms and conditions set forth herein.

(j) *Disclaimer Regarding Reporting.* Nothing in this Agreement, any other agreement between the Parties or any Company policy or program prohibits Executive from reporting in good faith possible violations of law or regulations to any governmental agency or governmental entity (including but not limited to the Department of Justice, the Securities and Exchange Commission, the Congress and any agency Inspector General) or making other disclosures that are protected under state or federal whistleblower provisions or by any other state or federal law or regulation.. Pursuant to the Defend Trade Secrets Act, an individual shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that: (1) is made (i) in confidence to a federal, state or local government official, either directly or indirectly, or to an attorney, and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (2) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. Notwithstanding the provisions of Section 7 of this Agreement, Executive does not need prior authorization from the Company to make such reports or disclosures, and Executive is not required to notify the Company that Executive has made such reports or disclosures. Nothing in this Agreement is intended to conflict with the whistleblower provisions of any United States federal, state or local law or regulation, including but not limited to Rule 21F-17 of the Securities Exchange Act of 1934 or Section 1833(b) of the Defend Trade Secrets Act of 2016.

IN WITNESS WHEREOF, the Parties have executed this Agreement below.

By: /s/ Christian Kopfli
Christian Kopfli

Date: July 27, 2023

Chromocell Therapeutics Corporation

By: /s/ Todd Davis
Name: Todd Davis
Title: Chairman of the Boars of Directors

Date: July 27, 2023

SECURITIES PURCHASE AGREEMENT

This **Securities Purchase Agreement** (this "**Agreement**") is dated as of September 1, 2023, between Chromocell Therapeutics Corporation, a Delaware corporation (the "**Company**"), and the purchasers identified on the signature pages hereto (each, an "**Initial Purchaser**" and, including their respective successors and permitted assigns, a "**Purchaser**") and Balmoral Financial Group LLC, a Delaware limited liability company ("**Balmoral**" or "**Lead Investor**"), or a designee of Lead Investor, as collateral agent for the Purchaser Parties (in such capacity, and together with any successor and replacement named in accordance with this Agreement, the "**Collateral Agent**").

WHEREAS, subject to the terms and conditions set forth in this Agreement and pursuant to Section 4(a)(2) of the Securities Act of 1933, as amended (the "**Securities Act**"), and Rule 506(b) promulgated by the Commission thereunder, the Company desires to issue and sell to the Initial Purchasers, and the Initial Purchasers desire to purchase from the Company for cash and other valuable consideration, Securities of the Company as defined and described more fully in this Agreement; and

WHEREAS, the Notes (as defined in Section 1.1) will rank senior to all outstanding and future indebtedness of the Company, and will be secured by a first priority perfected security interest (subject to Permitted Liens under and as defined in the Notes, and Liens listed in the Disclosure Schedules) in all of the current and future assets (other than certain Excluded Property (as defined in the Security Agreement (as defined Section 1.1)) of the Company, created or acquired in the future and subject to certain exclusions and limitations, as evidenced by the Security Agreement.

NOW, THEREFORE, in consideration of the representations, warranties and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Company and each Purchaser agree as follows:

ARTICLE I DEFINITIONS

1.1 **Definitions.** In addition to the terms defined elsewhere in this Agreement, the following terms have the meanings set forth in this **Section 1.1**:

"**Affiliate**" or a Person "**Affiliated**" with, a specified Person, means each Person that controls, is controlled by or is under common control with such Person or any Affiliate of such Person. For purpose of this definition, "control" and related words are used as such terms are used in and construed under Rule 405 under the Securities Act. Notwithstanding the foregoing, the Purchaser and its Subsidiaries, on the one hand, and the Company Parties and their Subsidiaries, on the other hand, shall not be considered "**Affiliates**" of each other.

"**Board of Directors**" means the board of directors of the Company.

"**Business Day**" means any day except Saturdays, Sundays, any day that is a federal holiday in the United States and any day on which the Federal Reserve Bank of New York is not open for business.

"**Capital Lease**" means, as applied to any Person, any lease of, or other arrangement conveying the right to use, any property (whether real, personal or mixed) by that Person as lessee that, in conformity with GAAP, is or should be accounted for as a capital lease on the balance sheet of that Person.

"Capital Stock" means all shares of capital stock (whether denominated as common stock or preferred stock), equity interests, beneficial, partnership or membership interests, joint venture interests, participations or other ownership or profit interests in or equivalents (regardless of how designated) of or in a Person (other than an individual), whether voting or non-voting.

"**Closing Date**" means the Business Day on which, or next following the day on which, all of the Transaction Documents required to be executed or delivered prior to the Closing have been executed and delivered by the applicable parties thereto and all other conditions precedent to (i) each Initial Purchaser's obligations to pay the Subscription Amount and (ii) the Company's obligations to deliver the Securities, in each case, have been satisfied or waived.

"**Closing**" means the closing of the purchase and sale of the Securities pursuant to **Section 2.2**.

"Collateral" means any and all "Collateral" as defined in the Security Agreement or any other Transaction Document granting a Lien to the Collateral Agent or any other Purchaser Party, as applicable, together with all property and interests in property and proceeds thereof now owned or hereafter acquired by any Company Party in or upon which a Lien is granted or purported to be granted pursuant to any Transaction Document.

"**Commission**" means the United States Securities and Exchange Commission.

"**Common Stock**" means the common stock of the Company, par value $0.0001 per share, any Capital Stock into which such shares of common stock shall have been changed, and any share capital resulting from a reclassification of such common stock.

"**Common Stock Equivalents**" means any securities of any Company Party which would entitle the holder thereof to acquire at any time Common Stock, including whether or not presently convertible, exchangeable or exercisable, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to purchase, subscribe or otherwise receive, Common Stock.

"Company Party" means each of the Company and its Subsidiaries.

"**Company Covered Person**" has the meaning ascribed to such term in **Section 3.1(cc)**.

"Consents" means any approval, consent, authorization, notice to, or any other action by, any Person other than any Governmental Authority.

"**Contractual Obligation**" means, with respect to any Person, any provision of any security or similar instrument issued by such Person or of any agreement, undertaking, contract, lease, indenture, mortgage, deed of trust or other instrument (other than a Transaction Document) to which such Person is a party or by which it or any of its property is bound or to which any of its property is subject.

"**Conversion Shares**" means shares of Common Stock issuable upon conversion of the Notes.

"**Currency Agreement**" means any foreign exchange contract, currency swap agreement, futures contract, option contract, synthetic cap or other similar agreement or arrangement. For purposes of this definition, cryptocurrencies shall be considered currencies.

"**Derivative**" means any Interest Rate Agreement, Currency Agreement, futures or forward contract, spot transaction, commodity swap, purchase or option agreement, other commodity price hedging arrangement, cap, floor or collar transaction, any credit default or total return swap, any other derivative instrument, any other similar speculative transaction and any other similar agreement or arrangement designed to alter the risks of any Person arising from fluctuations in any underlying variable, including interest rates, currency values, insurance, catastrophic losses, climatic or geological conditions or the price or value of any other derivative instrument. For the purposes of this definition, "derivative instrument" means "any derivative instrument" as defined in Statement of Financial Accounting Standards No. 133 (Accounting for Derivative Instruments and Hedging Activities) of the United States Financial Accounting Standards Board, and any defined with a term similar effect in any successor statement or any supplement to, or replacement of, any such statement.

"**Disclosure Certificate**" means a certificate disclosing detailed information about the Company Parties and the Collateral in form and substance satisfactory to the Purchasers on the Closing Date, together with any update on the Collateral or any other information in such certificate required to be given and given in accordance with any Transaction Document.

"**Disclosure Schedule**" means a schedule disclosing detailed information about the Company Parties and in form and substance satisfactory to the Purchaser on the Closing Date, together with any update on any information in such certificate required to be given and given in accordance with any Transaction Document.

"**Disqualification Event**" has the meaning ascribed to such term in **Section 3.1(cc)**.

"Dollars" and the sign **"$"** each mean the lawful money of the United States of America.

"Effective Price Per Share of the Initial Public Offering" means the effective price per share paid by investors per share of Common Stock that is sold to the public. By way of two non-exhaustive examples, among other similar offering structures: (a) if the stated public offering price of the Initial Public Offering is $10.00, but is sold as a unit consisting of two (2) shares of Common Stock, the "Effective Price Per Share of the Initial Public Offering" is $5.00 or (b) if the stated public offering price of the Initial Public Offering is $10.00, but is sold as a unit consisting of one (1) share of Common Stock and a warrant structured as an *exchange warrant* or a *special cashless exercise warrant* wherein the holder of such warrant may exercise such warrant on a cashless basis, in whole or in part, for a whole number of shares, equal to the same number of shares that would have been issued to the holder, if such holder had, instead, elected to exercise by paying the aggregate exercise price, in cash, without having to pay such aggregate exercise price, then the "Effective Price Per Share of the Initial Public Offering" is $5.00.

"Event of Default" means any event constituting an "Event of Default" under and as defined in any Note.

"**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

"**Exempt Issuance**" means the issuance of (a) shares of Common Stock or options to employees, officers, directors, advisors or independent contractors of the Company Parties; **provided**, that such issuance is approved by a majority of the board of directors of the Company; and **provided**, **further** that such issuance shall not exceed in the aggregate 10% of the outstanding shares of Common Stock without the prior approval of the Purchasers, (b) shares of Common Stock, warrants or options to advisors or independent contractors of any Company Party for compensatory purposes; **provided**, that such issuance shall not exceed in the aggregate 15% of the outstanding shares of Common Stock without the prior approval of the Purchasers, (c) securities upon the exercise or exchange of or conversion of any Securities issued hereunder and/or other securities exercisable or exchangeable for or convertible into shares of Common Stock issued and outstanding on the date hereof, provided that such securities have not been amended since the date hereof to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities, (d) securities issued pursuant to acquisitions or any other strategic transactions approved by a majority of the disinterested members of the Board of Directors; **provided**, that such acquisitions and other strategic transactions shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities, and (e) securities issued in connection with the Initial Public Offering.

"**Forfeited Shares**" means the shares of Common Stock forfeited by any current stockholder of the Company holding 5% or more of the total outstanding shares of Common Stock, who shall not be an Initial Purchaser participating in full in their pro-rata allocation of the Notes by Closing, which number of shares of Common Stock will equal to fifty percent (50%) of the shares of Common Stock and/or Common Stock Equivalents held by each such stockholder as of the date hereof.

"**GAAP**" means United States generally accepted accounting principles as in effect from time to time, applied consistently throughout the periods referenced and consistently with (a) the principles and standards set forth in the opinions and pronouncements of the Financial Accounting Standards Board or any successor entity, (b) to the extent consistent with such principles, generally accepted industry practices and (c) to the extent consistent with such principles and practices, the past practices of the Company as reflected in its financial statements as of and for the period ended December 31, 2022, which have been provided by the Company to the Lead Investor.

"Governmental Authority" means any nation, sovereign or government, any state, province, territory or other political subdivision thereof, any municipality, any agency, authority or instrumentality thereof and any entity or authority exercising executive, legislative, taxing, judicial, regulatory or administrative functions of or pertaining to government, and any corporation or other entity owned or controlled, through stock or capital ownership or otherwise, by any of the foregoing, including any central bank stock exchange regulatory body arbitrator, public sector entity, supra-national entity (including the European Union and the European Central Bank) and any self-regulatory organization (including the National Association of Insurance Commissioners).

"**Guaranty Obligation**" means, as applied to any Person, any direct or indirect liability, contingent or otherwise, of such Person with respect to any Indebtedness of another Person, if the purpose or intent of such Person in incurring the Guaranty Obligation is to provide assurance to the holder of such Indebtedness that such Indebtedness will be paid or discharged, that any agreement relating thereto will be complied with, or that any holder of such Indebtedness will be protected (in whole or in part) against loss in respect thereof, including (a) the direct or indirect guaranty, endorsement (other than for collection or deposit in the ordinary course of business), co-making, discounting with recourse or sale with recourse by such Person of Indebtedness of another Person and (b) any liability of such Person for Indebtedness of another Person through any agreement (contingent or otherwise) (i) to purchase, repurchase or otherwise acquire such Indebtedness or any security therefor or to provide funds for the payment or discharge of such Indebtedness (whether in the form of a loan, advance, stock purchase, capital contribution or otherwise), (ii) to maintain the solvency or any balance sheet item, level of income or financial condition of another Person, (iii) to make take-or-pay or similar payments, if required, regardless of non-performance by any other party or parties to an agreement, (iv) to purchase, sell or lease (as lessor or lessee) property, or to purchase or sell services, primarily for the purpose of enabling the debtor to make payment of such Indebtedness or to assure the holder of such Indebtedness against loss or (v) to supply funds to, or in any other manner invest in, such other Person (including to pay for property or services irrespective of whether such property is received or such services are rendered), if in the case of any agreement described under *clause (b)(i)*, *(ii)*, *(iii)*, *(iv)* or *(v)* above the primary purpose or intent thereof is to provide assurance that Indebtedness of another Person will be paid or discharged, that any agreement relating thereto will be complied with or that any holder of such Indebtedness will be protected (in whole or in part) against loss in respect thereof. The amount of any Guaranty Obligation shall be equal to the amount of the Indebtedness so guaranteed or otherwise supported.

"**Indebtedness**" means, with respect to any Person, without duplication, the following: (a) all indebtedness of such Person for borrowed money, (b) all obligations of such Person for the deferred purchase price of property or services other than accounts payable and accrued liabilities incurred in respect of property or services purchased in the ordinary course of business (**provided**, that such accounts payable and accrued liabilities are not overdue by more than 180 days), (c) all obligations of such Person evidenced by notes, bonds, debentures or similar borrowing or securities instruments, (d) all obligations of such Person created or arising under any conditional sale or other title retention agreement with respect to property acquired by such Person, (e) all obligations of such Person as lessee under Capital Leases, (f) all reimbursements and all other obligations of such Person with respect to (i) letters of credit, bank guarantees or bankers' acceptances or (ii) surety, customs, reclamation, performance or other similar bonds, (g) all obligations of such Person secured by Liens on the assets of such Person, (h) all Guaranty Obligations of such Person, (i) all obligations of such Person to purchase, redeem, retire, defease or otherwise make any payment in respect of any Capital Stock, Stock Equivalent (valued, in the case of redeemable preferred stock, at the greater of its voluntary liquidation preference and its involuntary liquidation preference plus accrued and unpaid dividends) or any warrants, rights or options to acquire such Capital Stock, (j) after taking into account the effect of any legally-enforceable netting Contractual Obligation of such Person, all payments that would be required to be made in respect of any Derivative in the event of a termination (including an early termination) on the date of determination and (k) all obligations of another Person of the type described in clauses (a) through (j) secured by (or for which the holder of such Indebtedness has an existing right, contingent or otherwise, to be secured by) a Lien on the assets of such Person (whether or not such Person is otherwise liable for such obligations of such other Person).

"Initial Principal Amount" means, as to any Purchaser, the principal amount of the Note of such Purchaser set forth on **Schedule I.**

"**Initial Public Offering"** means the initial public offering of the Company's securities.

"**Intellectual Property Rights**" means, collectively, all copyrights, patents, trademarks, service marks and trade names all applications for any of the foregoing, together with: (i) all inventions, processes, production methods, proprietary information, know-how and trade secrets; (ii) all licenses or user or other agreements granted with respect to any of the foregoing, in each case whether now or hereafter owned or used; (iii) all customer lists, identification of suppliers, data, plans, blueprints, specifications, designs, drawings, recorded knowledge, surveys, engineering reports, test reports, manuals, materials standards, processing standards, performance standards, catalogs, computer and automatic machinery software and programs; (iv) all field repair data, sales data and other information relating to sales or service of products now or hereafter manufactured; (v) all accounting information and all media in which or on which any information or knowledge or data or records may be recorded or stored and all computer programs used for the compilation or printout of such information, knowledge, records or data; (vi) all applications for any of the foregoing and (vii) all causes of action, claims and warranties, in each case, now or hereafter owned or acquired in respect of any item listed above.

"**Intellectual Property Security Agreement**" means each Intellectual Property Security Agreement executed by any Company Party and delivered to the Company in the form attached to the Security Agreement and otherwise in form and substance satisfactory to the Collateral Agent.

"**Interest Rate Agreement**" means any interest rate swap agreement, interest rate cap agreement, interest rate collar agreement, interest rate hedging agreement or other similar agreement or arrangement.

"**Liabilities**" means all amounts, indebtedness, obligations, liabilities, covenants and duties of every type and description owing by any Company Party from time to time to any Purchaser or any other Purchaser Party, whether direct or indirect, joint or several, absolute or contingent, due or to become due, liquidated or unliquidated, secured or unsecured, now existing or hereafter arising and however created, acquired (regardless of whether acquired by assignment), whether or not evidenced by any note or other instrument or for the payment of money and whether arising under Contractual Obligations, Regulations or otherwise, including, without duplication, (i) the principal amount due of the Note, (ii) all other amounts, fees, interest (including any prepayment premium), commissions, charges, costs, expenses, attorneys' fees and disbursements, indemnities, reimbursement of amounts paid and other sums chargeable to the Company under the Note, this Agreement or any other Transaction Document (including attorneys' fees) or otherwise arising under any Transaction Document and (iii) all interest on any item otherwise qualifying as a "Liability" hereunder, whether or not accruing after the filing of any petition in bankruptcy, or the commencement of any insolvency, reorganization or similar proceeding, whether or not a claim for post-filing or post-petition interest is allowed in such proceeding.

"**License Agreement**" has the meaning ascribed to such term in **Section 3.1(l)**.

"**Lien**" means any lien (statutory or other) mortgage, pledge, hypothecation, assignment, security interest, encumbrance, charge, claim, right of first refusal, preemptive right, restriction on transfer or similar restriction or other security arrangement of any kind or nature whatsoever, including any conditional sale or other title retention agreement and any capital or financing lease having substantially the same economic effect as any of the foregoing.

"Lock-Up Agreement" means the Lock-Up Agreement, dated as of the date hereof, by and among the Company and the Initial Purchasers, in the form of Exhibit A attached hereto.

"Losses" means all liabilities, rights, demands, covenants, duties, obligations (including indebtedness, receivables and other contractual obligations), claims, damages, Proceedings and causes of actions, settlements, judgments, damages, losses (including reductions in yield), debts, responsibilities, fines, penalties, sanctions, commissions and interest, disbursements, Taxes, interest, charges, costs, fees and expenses (including fees, charges, and disbursements of financial, legal and other advisors, consultants and professionals and, if applicable, any value-added and other taxes and charges thereon), in each case of any kind or nature, whether joint or several, whether now existing or hereafter arising and however acquired and whether or not known, asserted, direct, contingent, liquidated, due, consequential, actual, punitive or treble.

"**Material Adverse Effect**" means material adverse effect on, or change in, (a) the legality, validity or enforceability of any portion of any Transaction Document, (b) the operations, assets, business, prospects or condition (financial or otherwise) of any Company Party, (c) the ability of any Company Party to perform on a timely basis its obligations under any Transaction Document for any reason whatsoever, whether foreseen or unforeseen, including due to pandemic, acts of a Governmental Authority, interruption of transportation systems, strikes, terrorist activities, interruptions of supply chains or acts of God, or (d) the Collateral or the perfection or priority of any Liens granted to any Purchaser Party under any Transaction Document.

"Maximum Rate" has the meaning ascribed to such term in **Section 6.12**.

"**Note**" means each Senior Secured Convertible Promissory Note, in the form attached hereto as Exhibit B and otherwise in form and substance satisfactory to the Purchasers on the Closing Date, issued by the Company to each Purchaser hereunder and as of the Closing Date.

"**OFAC**" has the meaning ascribed to such term in **Section 3.1(y)**.

"**PCAOB**" means the Public Company Accounting Oversight Board.

"Permit" means, with respect to any Person, any permit, filing, notice, license, approval, variance, exception, permission, concession, grant, franchise, confirmation, endorsement, waiver, certification, registration, qualification, clearance or other Contractual Obligation or arrangement with, or authorization by, to or under the authority of, any Governmental Authority or pursuant to any Regulation, or any other action by any Governmental Authority in each case whether or not having the force of law and affecting or applicable to or binding upon such Person, its Contractual Obligations or arrangements or other liabilities or any of its property or to which such Person, its Contractual Obligations or any of its property is or is purported to be subject.

"**Person**" means an individual, partnership, corporation, incorporated or unincorporated association, limited liability company, limited liability partnership, joint stock company, land trust, business trust or unincorporated organization, or a government or agency, department or other subdivision thereof or other entity of any kind.

"**Pre-Notice**" has the meaning ascribed to such term in **Section 4.10(b)**.

"Proceeding" against a Person means an action, suit, litigation, arbitration, investigation, complaint, dispute, contest, hearing, inquiry, inquest, audit, examination or other proceeding threatened or pending against, affecting or purporting to affect such Person or its property, whether civil, criminal, administrative, investigative or appellate, in law or equity before any arbitrator or Governmental Authority.

"**Pro Rata Portion**" means, with respect to a Purchaser and a group of Purchasers as of a particular date, the ratio of (i) the Subscription Amount of Securities purchased on or prior to such date by such Purchaser (including, for the avoidance of doubt its predecessors and assignors) that remain outstanding on such date to (ii) the sum of the aggregate Subscription Amounts of Securities purchased by all Purchasers (including, for the avoidance of doubt, their predecessors and assignors) in such group on or prior to such date that remain outstanding on such date.

"**Purchaser Party**" has the meaning ascribed to such term in **Section 4.9**.

"Regulation" means, all international, federal, state, provincial and local laws (whether civil or common law or rule of equity and whether U.S. or non- U.S.), treaties, constitutions, statutes, codes, tariffs, rules, guidelines, regulations, writs, injunctions, orders, judgments, decrees, ordinances and administrative or judicial precedents or authorities, including, in each case whether or not having the force of law, the interpretation or administration thereof by any Governmental Authority, all policies, recommendations or guidance of any Governmental Authority and all administrative orders, directed duties, directives, requirements, requests.

"**Related Parties**" of any Person means such Person, (i) each Affiliate of such Person, (ii) each Person that, directly or indirectly, owns or controls, whether beneficially, or as a trustee, guardian or other fiduciary, 5% or more of the Capital Stock having ordinary voting power in the election of directors of such Person or such Affiliate, (iii) each of such Person's or such Affiliate's officers, managers, directors, joint venture partners, partners and employees (and any other Person with a functionally equivalent role of a Person holding such titles notwithstanding a lack of such title or any other title or classification as a contractor under employment Regulations), (iv) any lineal descendants, ancestors, spouse or former spouses (as part of a marital dissolution) of any of the foregoing, (v) any trust or beneficiary of a trust of which any of the foregoing are the sole trustees or for the benefit of any of the foregoing. Notwithstanding the foregoing, the Purchaser and its Subsidiaries, on the one hand, and the Company Parties and their Subsidiaries, on the other hand, shall not be considered "**Related Parties**" of each other.

"**Required Filings**" means the filing of Form D with the Commission and such filings as are required to be made under applicable state securities laws.

"**Required Purchasers**" means Purchasers holding more than 50% of the principal amount of the Notes then outstanding or, if no Note shall be outstanding, more than 50% in interest of the Commitment Shares then issued and outstanding but in either case including Lead Investor's consent for any such approval.

"**Resignation Effective Date**" has the meaning ascribed to such term in **Section 5.6(a)**.

"Restricted Payment" means, for any Person, (a) any dividend, stock split or other distribution, direct or indirect (including by way of spin off, reclassification, corporate rearrangement, scheme of arrangement or similar transaction), on account of, or otherwise to the holder or holders of, any shares of any class of Capital Stock of such Person now or hereafter outstanding, (b) any redemption, retirement, sinking fund or similar payment, purchase or other acquisition for value, direct or indirect, of any shares of any class of Capital Stock of such Person by such Person or any Affiliate thereof now or hereafter outstanding, and (c) any payment made to retire, or to obtain the surrender of, any Stock Equivalents now or hereafter outstanding; **provided**, that, for the avoidance of doubt, (i) a cashless exercise of an employee stock option in which options are cancelled to the extent needed such that the "in-the-money" value of the options (i.e. the excess of market price over exercise price) that are cancelled is utilized to pay the exercise price, and applicable taxes, shall not be a "**Restricted Payment**" and (ii) a distribution of rights (including rights to receive assets) or options shall constitute a "**Restricted Payment**".

"**Rule 144**" means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as such Rule.

"**Sanctioned Jurisdiction**" means, at any time, a country, territory or geographical region that is subject to, the target of, or purported to be subject to, Sanctions Laws.

"**Sanctions Laws**" means all applicable Regulations concerning or relating to economic or financial sanctions, requirements or trade embargoes imposed, administered or enforced from time to time by OFAC, including the following (together with their implementing regulations, in each case, as amended from time to time): the International Security and Development Cooperation Act (ISDCA) (22 U.S.C. §23499aa-9 et seq.); the USA Patriot Act; and the Trading with the Enemy Act (TWEA) (50 U.S.C. §5 et seq.).

"**Sanctioned Person**" means (a) any Person that is listed in the annex to, or otherwise subject to the provisions of, Executive Order 13224 – Blocking Property and Prohibiting Transactions with Persons Who Commit and Threaten to Commit or Support Terrorism, effective September 24, 2001; (b) any Person that is named in any Sanctions Laws-related list maintained by OFAC, including the "Specially Designated National and Blocked Person" list; (c) any Person or individual located, organized or resident or determined to be resident in a Sanctioned Jurisdiction that is, or whose government is, the target of comprehensive Sanctions Laws; (d) any organization or Person directly or indirectly owned or controlled by any such Person or Persons described in the foregoing clauses (a) through (c); and (e) any Person that commits, threatens or conspires to commit or supports "terrorism"," as defined in applicable United States Regulations.

"**Securities**" means the Notes and the Consideration Shares.

"**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"**Security Agreement**" means the Security Agreement by and among the Company Parties consisting of the Company and its operating subsidiaries and, and for the benefit of, and in form attached hereto as Exhibit C and otherwise in form and substance satisfactory on the Closing Date to, the Collateral Agent.

"**Shell Company**" means an entity that fits within the definition of "shell company" under Section 12b-2 of the Exchange Act and Rule 144.

"**Short Sales**" means all "short sales" as defined in Rule 200 of Regulation SHO under the Exchange Act.

"Stock Equivalents" means all securities and/or Indebtedness convertible into or exchangeable for Capital Stock or any other Stock Equivalent and all warrants, options, scrip rights, calls or commitments of any character whatsoever, and all other rights or options or other arrangements (including through a conversion or exchange of any other property) to purchase, subscribe for or acquire, any Capital Stock or any other Stock Equivalent, whether or not presently convertible, exchangeable or exercisable.

"**Subscription Amount**" means, as to any Purchaser, the aggregate amount to be paid for the Notes purchased hereunder as specified on **Schedule I**.

"**Subsidiary**" means any Person (other than natural persons) the management of which is, directly or indirectly, controlled by, or of which an aggregate of 50% or more of the outstanding Voting Stock is, at the time, owned or controlled, directly or indirectly, by such Person or one or more Subsidiaries of such Person.

"**Taxes"** means any present or future taxes, levies, imposts, duties, fees, assessments, deductions, withholdings or other charges of whatever nature, including income, receipts, excise, property, sales, use, transfer, license, payroll, withholding, social security and franchise taxes now or hereafter imposed or levied by the United States or any other Governmental Authority and all interest, penalties, additions to tax and similar liabilities with respect thereto, but excluding, in the case of any Purchaser, taxes imposed on or measured by the net income or overall gross receipts of such Purchaser.

"**Trading Day**" means a day on which the principal Trading Market for the Common Stock is open for trading.

"**Trading Market**" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American; the Nasdaq Capital Market; the Nasdaq Global Market; the Nasdaq Global Select Market; the New York Stock Exchange; OTC Markets or the OTC Bulletin Board (or any successors to any of the foregoing).

"**Transaction Documents**" means this Agreement, the Disclosure Certificate, the Notes, the Security Agreement, the Lock-Up Agreements, the Intellectual Property Security Agreements, and any other documents or agreements executed in connection with the transactions contemplated hereunder.

"**UCC**" means the Uniform Commercial Code as from time to time in effect in the State of Delaware; **provided**, that, in the event that, by reason of mandatory provisions of any applicable Regulation, any of the attachment, perfection or priority of the Collateral Agent's or any other Purchaser Party's security interest in any Collateral is governed by the Uniform Commercial Code of a jurisdiction other than the State of Delaware, "**UCC**" shall mean the Uniform Commercial Code as in effect in such other jurisdiction for purposes of the provisions hereof relating to such attachment, perfection or priority and for purposes of the definitions related to or otherwise used in such provisions.

"Voting Stock" means Capital Stock of any Person (i) having ordinary power to vote in the election of any member of the board of directors or any manager, trustee or other controlling persons of such Person (irrespective of whether, at the time, Capital Stock of any other class or classes of such entity shall have or might have voting power by reason of the happening of any contingency) and (ii) any Capital Stock of such Person convertible or exchangeable without restriction at the option of the holder thereof into Capital Stock of such Person described in clause (i) of this definition.

ARTICLE II PURCHASE AND SALE

2.1 **Purchase**. On the Closing Date, upon the terms and subject to the conditions set forth herein, substantially concurrent with the execution and delivery of this Agreement by the parties hereto, the Initial Purchasers will purchase, severally and not jointly, an aggregate of up to Two Hundred Fifty Thousand Dollars ($250,000) in Subscription Amount of Notes. The purchase will be completed in a single tranche as provided herein.

The Company will also issue to each Initial Purchaser, on a prorated basis, 25 shares of Common Stock per every $1,000 invested in the Notes (the "**Consideration Shares**"). The Consideration Share are being issued from the Company's treasury shares.

2.2 **Closing**. Upon the terms and subject to the conditions set forth herein, the Company agrees to sell, and each Initial Purchaser agrees, severally and not jointly, to purchase, at the Closing a Note having a principal amount equal to the Initial Principal Amount applicable to such Purchaser and subscribe the number of Consideration Shares for such Purchaser set forth on **Schedule I**. At the Closing, such Initial Purchaser shall deliver to the Company, via wire transfer to an account designated by the Company, immediately available Dollars equal to such Initial Purchaser's Subscription Amount, and the Company shall deliver to such Initial Purchaser its Note and Consideration Shares as set forth in **Section 2.3(a)** and such Initial Purchaser shall deliver to each other the other items set forth in **Section 2.3** deliverable at the Closing. Upon satisfaction of the covenants and conditions set forth in **Sections 2.3** and **2.4** for Closing, such Closing shall occur at the offices of Sullivan and Worcester LLC, 1633 Broadway, 32nd Floor, New York, NY 10019 or such other location as the parties shall mutually agree, and may by agreement be undertaken remotely by electronic exchange of Closing documentation. Notwithstanding anything herein to the contrary, if the Closing Date does not occur within ten (10) Business Days of the date hereof, this Agreement shall terminate and be null and void.

2.3 **Deliveries.**

(a) **Deliveries to Initial Purchasers.** On or prior to the Closing (except as noted), the Company shall deliver or cause to be delivered to each Initial Purchaser the following, each dated as of the Closing Date and in form and substance satisfactory to the Collateral Agent and such Initial Purchaser:

(i) this Agreement, duly executed by the Company;

(ii) the Disclosure Certificate, duly executed by the Company;

(iii) a Note for such Initial Purchaser duly executed by the Company with an aggregate Initial Principal Amount equal to the amount set forth opposite such Initial Purchaser's name in Column 2 on the Schedule of Initial Purchasers, registered in the name of such Initial Purchaser;

(iv) the Consideration Shares for such Initial Purchaser duly issued by the Company with an aggregate amount of Consideration Shares equal to the amount set forth opposite such Initial Purchaser's name in Column 3 on the Schedule on Initial Purchasers;

(v) the Security Agreement, duly executed by the Company Parties;

(vi) the Intellectual Property Security Agreements, duly executed by each Company Party having Intellectual Property Rights and covering collectively all such Intellectual Property Rights (subject to de minimis exceptions made by the Collateral Agent in its sole discretion);

(vii) an officer's certificate and secretary's certificate from the Company, each in form and substance acceptable to such Initial Purchaser; and

(viii) a closing statement, in form and substance acceptable to such Purchaser, and such other statements, agreements and other documents as such Initial Purchaser may require.

(b) **Deliveries to the Company.** On or prior to the Closing, each Initial Purchaser (or, where applicable, the Collateral Agent) shall deliver or cause to be delivered to the Company, as applicable, the following, each duly executed by such Initial Purchaser (or, as the case may be, Collateral Agent) and dated as of the Closing Date:

(i) this Agreement;

(ii) the Security Agreement;

(iii) the Lock-Up Agreements; and

(iv) the Intellectual Property Security Agreements.

2.4 **Closing Conditions.**

(a) **Conditions to the Company's Obligations.** The obligations of the Company pursuant to **Section 2.2** in connection with the Closing are subject to the satisfaction, or waiver in accordance with this Agreement, of the following conditions on or before the Closing Date:

(i) the representations and warranties of each Purchaser contained herein shall be true and correct as of the Closing Date (unless expressly made as of an earlier date herein in which case they shall be accurate as of such date);

(ii) all obligations, covenants and agreements required to be performed by any Initial Purchaser on or prior to the Closing Date (other than the obligations set forth in **Section 2.2** to be performed at the Closing) shall have been performed; and

(iii) the delivery by each Purchaser of the items such Purchaser is required to deliver prior to the Closing Date pursuant to **Section 2.3(b)**.

(b) **Conditions to the Initial Purchaser's Obligations.** The respective obligations of each Initial Purchaser and the Collateral Agent pursuant to **Section 2.2** in connection with the Closing are subject to the satisfaction, or waiver in accordance with this Agreement, of the following conditions on or before the Closing Date, both before and after giving effect to the Closing:

(i) the representations and warranties of each Company Party contained in any Transaction Document shall be true and correct as of the Closing Date (unless expressly made as of an earlier date herein in which case they shall be accurate as of such date);

(ii) all obligations, covenants and agreements required to be performed by any Company Party or any on or prior to the Closing Date pursuant to any Transaction Document (other than the obligations set forth in **Section 2.2** to be performed at the Closing) shall have been performed;

(iii) the delivery by each Company Party of the items such Company Party is required to deliver on or prior to the Closing Date pursuant to **Section 2.3(a)**;

(iv) there shall exist no Event of Default and no event which, with the passage of time or the giving of notice, would constitute an Event of Default;

(v) there shall be no breach of any obligation, covenant or agreement of any Company Party under the Transaction Documents and no existing event which, with the passage of time or the giving of notice, would constitute such a breach;

(vi) no Material Adverse Effect shall have occurred from the date hereof through the Closing Date; and

(vii) any other conditions contained herein or the other Transaction Documents, including delivery of the items that any Company Party is required to deliver on or prior to the Closing Date pursuant to **Section 2.3**.

ARTICLE III REPRESENTATIONS AND WARRANTIES

3.1 **Representations and Warranties of the Company Parties**. The Company hereby makes the following representations and warranties (and, to the extent provided in the Security Agreement or any other Transaction Document, each other Company Party makes the following representations and warranties as, and to the extent applicable to, such Company Party) to each Purchaser as of the Closing Date as to each Company Party, each subject to the exceptions set forth in the Disclosure Schedules, which Disclosure Schedules are deemed a part hereof and qualifies any representation or otherwise made herein to the extent of the disclosure contained in the corresponding section of the Disclosure Schedules:

(a) **Subsidiaries**. All of the direct and indirect Subsidiaries of the Company are set forth on the **Schedule 3.1(a)**. The Company owns, directly or indirectly, all of the Capital Stock and Stock Equivalents of each Subsidiary free and clear of any Liens, other than as set forth in the **Schedule 3.1(a)**, and all of the issued and outstanding shares of Capital Stock of each Subsidiary are validly issued and are fully paid, non-assessable and free of preemptive and similar rights to subscribe for or purchase securities.

(b) **Organization and Qualification**. Each Company Party is a Person having the corporate form listed on **Schedule 3.1(b)**, duly organized, validly existing and in good standing under the law of its jurisdiction of organization listed on **Schedule 3.1(b)** and is duly qualified or licensed to transact business in its jurisdiction of organization, the jurisdiction of its principal place of business, any other jurisdiction where the Purchasers have filed a UCC financing statement or a mortgage and, except where the failure to do so would not have a Material Adverse Effect, any other jurisdiction where such qualification is necessary to conduct its business or own the property it purports to own – and no Proceeding exists or has be instituted or threatened in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification. Each Company Party has the right, power and authority to enter into and discharge all of its obligations under each Transaction Document to which it purports to be a party, each of which constitutes a legal, valid and binding obligation of such Company Party, enforceable against it in accordance with its terms, subject only to bankruptcy and similar Regulations affecting creditors' rights generally; and has the power, authority, Permits and Licenses to own its property and to carry on its business as presently conducted. No Company Party is engaged in the business of extending credit (which shall not include intercompany credit among the Company Parties) for the purpose of purchasing or carrying margin stock or any cryptocurrency, token or other blockchain asset.

(c) **Authorization; Enforcement**. The execution, delivery, performance by each Company Party of its obligations, and exercise by such Company Party of its rights under the Transaction Documents, including, if applicable, the sale of Notes, the Consideration Shares and other securities under this Agreement, (i) have been duly authorized by all necessary corporate actions of such Company Party, (ii) except for the Required Filings, do not require any Consents or Permits that have not been obtained prior to the date hereof and each such Permit or Consent is in full force and effect and not subject of any pending or, to the best of any Company Party's knowledge, threatened, attack or revocation, (iii) are not and will not be in conflict with or prohibited or prevented by or create a breach under (A) except for those that do not have a Material Adverse Effect, any Regulation or Permit, (B) any corporate governance document or resolution or (C) except for those that do not have a Material Adverse Effect, any Contractual Obligation or provision thereof binding on such Company Party or affecting any property of such Company Party and (iv) will not result in the imposition of any Lien on the Collateral other than Liens for the benefit of the Purchaser Parties. Upon execution and delivery thereof, each Transaction Document to which such Company Party purports to be a party shall constitute the legal, valid and binding obligation of such Company Party, enforceable against such Company Party in accordance with its terms.

(d) **Issuance of the Securities**. The Securities are duly authorized and, when issued and paid for in accordance with the applicable Transaction Documents, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company other than such Liens and restrictions on transfer provided for in the Transaction Documents. The shares of Common Stock issuable upon conversion of the Notes, when issued in accordance with the terms of the Notes, as applicable, will be validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company other than such Liens and restrictions on transfer provided for in the Transaction Documents.

(e) **Capitalization**. The capitalization of the Company is as set forth on **Schedule 3.1(e)**, which also includes the number of shares of Common Stock owned beneficially, and of record, by Affiliates of the Company as of the date hereof. No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in, or triggered by, the transactions contemplated by the Transaction Documents as set forth on **Schedule 3.1(e)**. There are no outstanding Stock Equivalents with respect to any shares of Common Stock, and there are no Contractual Obligations by which the Company or any Subsidiary is or may become bound to issue additional shares of Common Stock or Common Stock Equivalents except as set forth on **Schedule 3.1(e)**. The issuance and sale of the Securities will not obligate the Company to issue shares of Common Stock or any other securities to any Person (other than to any Purchaser) and will not result in a right of any holder of securities issued by any Company Party to adjust the exercise, conversion, exchange or reset price under any Stock Equivalent, except as set forth on **Schedule 3.1(e)**. All of the outstanding shares of Capital Stock of the Company are duly authorized, validly issued, fully paid and nonassessable, have been issued in compliance with all securities Regulations, and no such outstanding share was issued in violation of any preemptive right or similar or other right to subscribe for or purchase securities or any other existing Contractual Obligation. No further approval or authorization of any stockholder, and no other Permit or Consent, is required for the issuance and sale of the Securities. There are no stockholders' agreements, voting agreements or other similar Contractual Obligations with respect to the Company's Capital Stock or Stock Equivalents to which the Company is a party or, to the knowledge of the Company, between or among any of the Company's stockholders or other equity investors.

(f) **Material Adverse Effects; Undisclosed Events, Liabilities or Developments**. Except as set forth in **Schedule 3.1(f)**, since December 31, 2022: (i) there has been no event that has had, or could reasonably be expected to result in, a Material Adverse Effect, (ii) no Company Party has incurred any Indebtedness or other liability (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required by GAAP to be reflected in the Company's financial statements, (iii) no Company Party has altered its fiscal year or accounting methods; (iv) no Company Party has declared or made any Restricted Payment or entered in any Contractual Obligation to do so, (v) no Company Party has issued any Capital Stock to any officer, director or other Affiliate, and (vi) there has been no event, liability, fact, circumstance, occurrence or development has occurred or exists or is reasonably expected to occur or exist with respect to any Company Party, their Subsidiaries or their respective businesses, properties, operations, assets or financial condition, that would be required to be disclosed by any Company Party under applicable securities Regulations at the time this representation is made or deemed made that has not been disclosed to the Purchaser prior to the date that this representation is made.

(g) **Litigation**. Except as set forth in **Schedule 3.1(g)**, there is no Proceeding against any Company Party of any Subsidiary of any Company Party or any current or former officer or director of any Company Party or any Subsidiary of any Company Party in its capacity as such which (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents or the Securities, (ii) involves the Commission or otherwise involves violations of securities Regulations or (iii) could, assuming an unfavorable result, have or reasonably be expected to result in a Material Adverse Effect, and none of the Company Parties, their Subsidiaries, or any director or officer of any of them, is or has been the subject of any Proceeding involving a claim of violation of or liability under securities Regulations or a claim of breach of fiduciary duty. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company or any Subsidiary under the Exchange Act or the Securities Act.

(h) **Labor Relations**. There is (i) no unfair labor practice at any Company Party and there is no unfair labor practice complaint pending against any Company Party or any Subsidiary of any Company Party or, to their knowledge of any Company Party, threatened against any of them before the National Labor Relations Board and no grievance or arbitration proceeding arising out of or under any collective bargaining agreement that is so pending against any Company Party or any Subsidiary of any Company Party or to their knowledge threatened against any of them, (ii) no strike, work stoppage or other labor dispute in existence or to their knowledge threatened involving any Company Party or any Subsidiary of any Company Party, and (iii) no union representation question existing with respect to the employees of any Company Party or any Subsidiary of any Company Party, as the case may be, and no union organization activity that is taking place, except (with respect to any matter specified in clause (i), (ii) or (iii) above, either individually or in the aggregate) such as could not reasonably likely to have a Material Adverse Effect. None of the Company's or its Subsidiaries' employees is a member of a union that relates to such employee's relationship with the Company or such Subsidiary, and neither the Company nor any of its Subsidiaries is a party to a collective bargaining agreement. To the knowledge of the Company, the continued service to the Company of the executive officers of the Company Parties and their Subsidiaries is not, and is not expected to be, in violation of any material term of any Contractual Obligation in favor of any third party, and does not subject any Company Party or any Subsidiary of any Company Party to any Loss with respect to any of the foregoing matters.

(i) **Compliance**. No Company Party and no Subsidiary thereof, except as set forth in **Schedule 3.1(i)** or as could not have or reasonably be expected to result in a Material Adverse Effect: (i) is in default under or in violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company or any Subsidiary under), nor has any Company Party or any Subsidiary thereof received notice of a claim that it is in default under or that it is in violation of, any Contractual Obligation (whether or not such default or violation has been waived); (ii) is in violation of any judgment, decree or order of any Governmental Authority; (iii) is or has been in violation of any Regulation, and to the knowledge of each Company Party, no Person has made or threatened to make any claim that such a violation exists (including relating to taxes, environmental protection, occupational health and safety, product quality and safety, employment or labor matters) or (iv) has incurred, or could reasonably be expected to incur Losses relating to compliance with Regulations (including clean-up costs under environmental Regulations), nor have any such Losses been threatened.

(j) **Permits**. The Company has all material Permits issued by the appropriate Governmental Authority that are necessary for each Company Party and its Subsidiaries to conduct their respective businesses, except where failure to possess such Permit could reasonably be expected not to result in a Material Adverse Effect and no Company Party nor any Subsidiary thereof has received any notice of proceedings relating to the revocation or modification of any such Permit.

(k) **Title to Assets**. Each Company Party and their Subsidiaries have good and marketable title in fee simple to all real property owned by them and good title in fee simple to all personal property owned or purported to be owned by any of them that is material to the business of any Company Party or any Subsidiary of any Company Party, in each case free and clear of all Liens except as set forth in **Schedule 3.1(k)** and except for (i) Liens that do not materially affect the value of any such property and do not materially interfere with the use made and proposed to be made of such property by the Company Parties and their Subsidiaries and (ii) Liens for the payment of federal, state or other taxes, for which appropriate reserves have been made therefor in accordance with GAAP and, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by any Company Party or any Subsidiary of the Company Parties (and any personal property if such lease is material to the business of any Company Party or any Subsidiary of any Company Party) are held by them under valid, subsisting and enforceable leases with which the Company Parties and their Subsidiaries party thereto are in compliance.

(l) **Intellectual Property**. Except where the failure to do so would not have a Material Adverse Effect, each Company Party and each Subsidiary of the Company Parties have, or have rights to use, all Intellectual Property Rights they purport to have or have rights to use, which, in the aggregate for all such Company Party and such Subsidiary, constitute all Intellectual Property Rights necessary or required for use in connection with the businesses of the Company Parties and their Subsidiary as presently conducted. No Company Party and no Subsidiary of any Company Party has received a notice (written or otherwise) that any of the Intellectual Property Rights has expired, terminated or been abandoned, or is expected to expire or terminate or be abandoned, within two (2) years from the date of this Agreement, and, to the knowledge of each Company Party and its Subsidiaries, no event has occurred that permits, or would permit after notice or passage of time or both, the revocation, suspension or termination of such rights. No Company Party and no Subsidiary of any Company Party has received, since the date of the latest audited financial statements provided to the Lead Investor a written notice of a claim, nor has such a claim been threatened or could reasonably be expected to be made, and no Company Party and no Subsidiary of any Company Party otherwise has any knowledge that any slogan or other advertising device, product, process, method, substance or other Intellectual Property or goods or services bearing or using any Intellectual Property Right presently contemplated to be sold by or employed by Intellectual Property Right of any Company Party or any Subsidiary of any Company Party violate or infringe upon the rights of any Person, except as could not reasonably be expected to have a Material Adverse Effect. To the knowledge of each Company Party and its Subsidiaries, all such Intellectual Property Rights are enforceable and there is no existing infringement by another Person of any of the Intellectual Property Rights. Each Company Party and its Subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all of their intellectual properties, except where failure to do so could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. No Company Party and no Subsidiary of any Company Party has any Intellectual Property Right registered, or subject to pending applications, in the United States Patent and Trademark Office or any similar office or agency in the United States, any State thereof, any political subdivision thereof or in any other country, other than those set forth on **Schedule 3.1(l)**, or has granted any licenses with respect thereto other than as set forth on **Schedule 3.1(l)**. **Schedule 3.1(l)** also set forth all Contractual Obligations or other arrangements of any Company Party or any Subsidiary of any Company Party as in effect on the date hereof pursuant to which such Company Party or such Subsidiary has a license or other right to use any Intellectual Property owned by another Person and the dates of the expiration of such Contractual Obligations or other arrangements (collectively, together with such Contractual Obligations or other arrangements as may be entered into by any Company Party or any Subsidiary of any Company Party after the date hereof, the "**License Agreements**"). All material License Agreements and related rights are in full force and effect, no default or event of default exists with respect thereto in respect of the obligations of licensor or with respect to any royalty or other payment obligations of any Company Party or any Subsidiary of any Company Party or any obligation of any Company Party or any Subsidiary of any Company Party with respect to manufacturing standards, quality control or specifications and each such Company Party or such Subsidiary is in compliance with the terms thereof in all material respects and no owner, licensor or other party thereto has sent any notice of termination or its intention to terminate such license or rights.

(m) **Transactions with Related Parties**. Except as set forth in **Schedule 3.1(m)**, no Company Party and no Subsidiary of any Company Party is a party to any Contractual Obligation or other transaction with any Related Party that is not a Company Party or Subsidiary of a Company Party, including (a) Investments by any Company Party or any Subsidiary thereof in any such other Related Party or Indebtedness owing by or to any such other Related Party and (b) transfers, sales, leases, assignments or other acquisitions or dispositions of any asset, in each case except for (x) transactions in the ordinary course of business on a basis no less favorable to the Company Parties and their Subsidiaries as would be obtained in a comparable arm's length transaction with a Person not a Related Party and (y) salaries and other director or employee or other staff compensation, including expense reimbursements and employee benefits, of the Company Parties and their Subsidiaries.

(n) **Sarbanes-Oxley; Internal Accounting Controls**. The Company and its Subsidiaries are in compliance with or, in connection with its anticipated Initial Public Offering, are in the process of complying with any and all applicable requirements of the Sarbanes-Oxley Act of 2002 that are effective as of the date hereof, and any and all related Regulations.

(o) **Certain Fees**. No brokerage or finder's fees or commissions or similar fees are or will be payable by any Company Party or any Subsidiary of any Company Party to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. No Purchaser shall have any obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this **Section 3.1(o)** that may be due in connection with the transactions contemplated by the Transaction Documents.

(p) **Private Placement**. Assuming the accuracy of each Purchaser's representations and warranties set forth in **Section 3.2**, no registration under the Securities Act is required for the offer and sale of the Securities by the Company to the Purchasers as contemplated hereby. The issuance and sale of the Securities hereunder does not contravene the rules and regulations of the Trading Market.

(q) **Investment Company**. No Company Party and no Subsidiary of any Company Party is, or is an Affiliate of (and, immediately after receipt of payment for the Securities and before and after giving effect to the use of the proceeds thereof, none will be or be an Affiliate of), an "investment company" within the meaning of the Investment Company Act of 1940, as amended. Each Company Party and each Subsidiary of any Company Party shall conduct its business in a manner so that it will not become an "investment company" subject to registration under the Investment Company Act of 1940, as amended.

(r) **Registration Rights**. No Person has any right to cause any Company Party or any Subsidiary of any Company Party to effect the registration under the Securities Act of any securities of any Company Party or any Subsidiary of any Company Party, except for the rights granted to the Purchasers pursuant to Section 4.14 of this Agreement.

(s) **No Integrated Offering**. Assuming the accuracy of each Purchaser's representations and warranties set forth in **Section 3.2**, no Company Party, nor any of its Affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Securities to be integrated with prior offerings by the Company for purposes of the Securities Act which would require the registration of any such securities under the Securities Act.

(t) **No General Solicitation or General Advertising**. Neither the Company nor any person acting on behalf of the Company has offered or sold any of the Securities by any form of general solicitation or general advertising. The Company has offered the Securities for sale only to the Purchasers and certain other "accredited investors" within the meaning of Rule 501 under the Securities Act.

(u) **Foreign Corrupt Practices**. No Company Party and no Related Party of any Company Party, has done any of the following, directly or indirectly (including through agents, contractors, trustees, representatives and advisors): (i) made contributions or payments of, or reimbursement for, gifts, entertainment or other expenses, in each case that could reasonably be viewed as unlawful under U.S. or other Regulations related to foreign or domestic political activity or (ii) made payments to U.S. or other officials, judges, employees or other staff members of any Governmental Authority or other Persons viewed as government officials under any Regulation or to any foreign or domestic political parties, elected or union officials or campaigns in order to obtain, retain or direct business or obtain any improper advantage, and no part of the proceeds of the Notes will be used, directly or indirectly, to fund any such payment; (iii) failed to disclose fully any contribution or other payment made by any Company Party or any Subsidiary of any Company Party (or made by any person acting on the behalf of any of the foregoing) which could reasonably be viewed as in violation of U.S. or other Regulations; or (iv) any other activity in violation of the United States Foreign Corrupt Practices Act of 1977, as amended, or any other Regulation sanctioning or purporting to sanction bribery, corruption and other improper payments.

(v) **Accountants**. The Company's accounting firm is a registered public accounting firm as required by the PCAOB.

(w) **No Disagreements with Accountants and Lawyers**. There are no disagreements of any kind presently existing, or reasonably anticipated by any Company Party to arise, between the Company and the accountants and lawyers formerly or presently employed by the Company and the Company is current with respect to any fees owed to its accountants and lawyers which could affect the Company's ability to perform any of its obligations under any of the Transaction Documents.

(x) **Stock Option Plans**. The Company has not knowingly granted, and there is no and has been no Company policy or practice to knowingly grant, stock options prior to, or otherwise knowingly coordinate the grant of stock options with, the release or other public announcement of material information regarding the Company or its Subsidiaries or their financial results or prospects.

(y) **Sanctions**. No Company Party and no Related Party of any Company Party, directly or indirectly (including through agents, contractors, trustees, representatives or advisors) (a) is in violation of any Sanctions Law or engages in, or conspire or attempts to engage in, any transaction evading or avoiding any prohibition in any Sanction Law, (b) is a Sanctioned Person or derive revenues from investments in, or transactions with Sanctioned Persons, (c) has any assets located in Sanctioned Jurisdictions or (d) deals in, or otherwise engages in any transactions relating to, any property or interest in property blocked pursuant to any Regulation administered or enforced by the U.S. Office of Foreign Assets Control ("**OFAC**"). The Borrower will not use, directly or indirectly, any part of the proceeds of any Note hereunder to fund, and none of the Borrower or its Related Parties, either directly or indirectly (including through agents, contractors, trustees, representatives or advisors), are engaged in any operations involving, the financing of any investments or activities in, or any payments to, a Sanctioned Person.

(z) **U.S. Real Property Holding Corporation**. The Company is not and has never been a U.S. real property holding corporation within the meaning of Section 897 of the Internal Revenue Code of 1986, as amended, and the Company shall so certify upon any Purchaser's request.

(aa) **Tax Status**. Except for matters that would not, individually or in the aggregate, have or could reasonably be expected to result in a Material Adverse Effect, the Company Parties (i) have made or filed all United States federal, state and local income and all foreign income and franchise tax returns, reports and declarations required by any jurisdiction to which it is subject, (ii) have paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations and (iii) have set aside on their respective books provision reasonably adequate for the payment of all material taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company Parties know of no basis for any such claim.

(bb) **Seniority**. As of the Closing Date, except for the Indebtedness having an outstanding principal amount as of the Closing Date not exceeding $1,018,808, no Indebtedness or other claim against any Company Party is senior in right of payment to the Notes or the obligations due thereunder or their guaranties, whether with respect to interest or upon liquidation or dissolution, or otherwise, other than indebtedness secured by purchase money security interests (which is senior only as to underlying assets covered thereby) and capital lease obligations (which is senior only as to the property covered thereby).

(cc) **Disqualification Events**. With respect to the Securities to be offered and sold hereunder in reliance on Rule 506(b) of Regulation D promulgated under the Securities Act, none of the Company, any of its predecessors, any affiliated issuer, any director, executive officer, other officer of the Company participating in the offering hereunder, any beneficial owner of twenty percent (20%) or more of the Company's outstanding voting equity securities, calculated on the basis of voting power, nor any promoter (as such term is defined in Rule 405 under the Securities Act) connected with the Company in any capacity at the time of sale (as each such term is used and understood in Rule 506(d) of Regulation D under the Securities Act, each a "**Company Covered Person**") is subject to any of the "Bad Actor" disqualifications described in Rule 506(d)(1)(i) to (viii) of Regulation D under the Securities Act (a "**Disqualification Event**"), except for a Disqualification Event covered by Rule 506(d)(2) or (d)(3) of Regulation D under the Securities Act. The Company has exercised reasonable care to determine whether any Company Covered Person is subject to a Disqualification Event. The Company has complied, to the extent applicable, with its disclosure obligations under Rule 506(e) of Regulation D promulgated under the Securities Act and has furnished to the Purchaser a copy of any disclosures provided thereunder. The Company will notify each Purchaser in writing, prior to the Closing Date, of (i) any Disqualification Event relating to any Company Covered Person and (ii) any event that would, with the passage of time, become a Disqualification Event relating to any Company Covered Person.

(dd) **No Other Covered Persons.** There is no Person (other than a Company Covered Person) that has been or will be paid (directly or indirectly) remuneration for solicitation of the Purchaser in connection with the sale of any Securities.

(ee) **Subsidiary Rights**. Each Company Party has the unrestricted right to vote, and (subject to limitations imposed by applicable law) to receive dividends and distributions on, all capital securities of its Subsidiaries as owned by any Company Party or any Subsidiary of any Company Party.

(ff) **Full Disclosure**. All of the disclosures furnished on behalf of, and all of the representations and warranties made by, any Company Party in any Transaction Document and all statements contained in the Disclosure Schedules to this Agreement or any certificate or other document furnished or to be furnished to any Purchaser or any Purchaser Party or their attorneys or advisors pursuant to any Transaction Document are true and correct and none contains any untrue statement of a material fact, or omits to state a material fact necessary to make the statements contained therein, in light of the circumstances in which they are made, not misleading. The press releases disseminated by the Company Parties during the twelve months preceding the date of this Agreement taken as a whole do not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made and when made, not misleading.

3.2 **Representations and Warranties of Each Purchaser**. Each Purchaser, severally and not jointly, for itself and for no other Purchaser, hereby represents and warrants as of the date hereof and as of the Closing Date to the Company as follows (unless as of a specific date therein in which case they shall be accurate as of such date). Each Company Party acknowledges and agrees that the representations and warranties of each Purchaser set forth in **Section 3.2** shall not modify, amend or affect any Purchaser's right to rely on the representations and warranties of any Company Party contained in this Agreement or in any other Transaction Document or any other document or instrument executed and/or delivered in connection with this Agreement or the consummation of the transaction contemplated hereby.

(a) **Organization; Authority**. Such Purchaser is either an individual or an entity duly incorporated or formed, validly existing and in good standing under the laws of the jurisdiction of its incorporation or formation with full right, corporate, partnership, limited liability company or similar power and authority to enter into and to consummate the transactions contemplated by the Transaction Documents and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of the Transaction Documents and performance by such Purchaser of the transactions contemplated by the Transaction Documents have been duly authorized by all necessary corporate, partnership, limited liability company or similar action, as applicable, on the part of such Purchaser. Each Transaction Document to which it is a party has been duly executed by such Purchaser, and when delivered by such Purchaser in accordance with the terms hereof, will constitute the valid and legally binding obligation of such Purchaser, enforceable against it in accordance with its terms, except: (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally; (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies; and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

(b) **Own Account**. Such Purchaser understands that the Securities are "restricted securities" and have not been registered under the Securities Act or any applicable state securities law and is acquiring the Securities as principal for its own account and not with a view to or for distributing or reselling such Securities or any part thereof in violation of the Securities Act or any applicable state securities law, has no present intention of distributing any of such Securities in violation of the Securities Act or any applicable state securities law and has no direct or indirect arrangement or understandings with any other persons to distribute or regarding the distribution of such Securities in violation of the Securities Act or any applicable state securities law (this representation and warranty not limiting such Purchaser's right to sell the Securities in compliance with applicable federal and state securities laws). Such Purchaser is acquiring the Securities hereunder in the ordinary course of its business.

(c) **Purchaser Status**. At the time such Purchaser was offered or otherwise purchased or acquired the Securities, it was, and as of the date hereof it is, and on each date on which it converts the Notes it will be an "accredited investor" as defined in Rule 501(a)(1), (a)(2), (a)(3), (a)(7) or (a)(8) under the Securities Act.

(d) **Experience of Such Purchaser**. Such Purchaser, either alone or together with its representatives, has such knowledge, sophistication and experience in business and financial matters so as to be capable of evaluating the merits and risks of the prospective investment in the Securities, and has so evaluated the merits and risks of such investment. Such Purchaser is able to bear the economic risk of an investment in the Securities and, at the present time, is able to afford a complete loss of such investment.

(e) **General Solicitation / General Advertising**. Such Purchaser is not purchasing the Securities as a result of any advertisement, article, notice or other communication regarding the Securities published in any newspaper, magazine or similar media or broadcast over television or radio or presented at any seminar or any other general solicitation or general advertisement.

(f) **Certain Transactions and Confidentiality**. Other than consummating the transactions contemplated hereunder, such Purchaser has not directly or indirectly, nor has any Person acting on behalf of or pursuant to any understanding with such Purchaser, executed any purchases or sales, including Short Sales, of the securities of the Company during the period commencing as of the time that such Purchaser first received a term sheet (written or oral) from the Company or any other Person representing the Company setting forth the material terms of the transactions contemplated hereunder and ending immediately prior to the execution hereof. Notwithstanding the foregoing, if such Purchaser is a multi-managed investment vehicle (whereby separate portfolio managers manage separate portions of such Purchaser's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Purchaser's assets), the representation set forth above in this **clause (f)** shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Securities covered by this Agreement. Other than to other Persons party to this Agreement, such Purchaser has maintained the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction).

ARTICLE IV OTHER AGREEMENTS OF THE PARTIES

4.1 **Transfer Restrictions.**

(a) The Securities may only be disposed of in compliance with state and federal securities laws. In connection with any transfer of Securities other than pursuant to an effective registration statement or Rule 144, to the Company or to an Affiliate of a Purchaser or in connection with a pledge as contemplated in **Section 4.1(b)**, the Company may require the transferor thereof to provide to the Company an opinion of counsel selected by the transferor and reasonably acceptable to the Company, at the Company's sole expense in the form and substance of which opinion shall be reasonably satisfactory to the Company, to the effect that such transfer does not require registration of such transferred Securities under the Securities Act. As a condition of transfer, any such transferee shall agree in writing to be bound by the terms of this Agreement and shall have the rights and obligations of a Purchaser under this Agreement.

(b) Each Purchaser agrees, severally but not jointly, to the inclusion, for as long as is required by this **Section 4.1**, of a legend on all of the Securities in the following form:

NEITHER THIS SECURITY NOR THE SECURITIES INTO WHICH THIS SECURITY IS CONVERTIBLE HAS NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL TO THE TRANSFEROR TO SUCH EFFECT, THE SUBSTANCE OF WHICH SHALL BE REASONABLY ACCEPTABLE TO THE COMPANY. THIS SECURITY AND THE SECURITIES ISSUABLE UPON CONVERSION OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT WITH A REGISTERED BROKER-DEALER OR OTHER LOAN WITH A FINANCIAL INSTITUTION THAT IS AN "ACCREDITED INVESTOR" AS DEFINED IN RULE 501(a) UNDER THE SECURITIES ACT OR OTHER LOAN SECURED BY SUCH SECURITIES.

The Company acknowledges and agrees that each Purchaser may from time to time pledge pursuant to a bona fide margin agreement with a registered broker-dealer or grant a security interest in some or all of its Securities to a financial institution that is an "accredited investor" as defined in Rule 501(a) under the Securities Act and who agrees to be bound by the provisions of this Agreement and, if required under the terms of such arrangement, such Purchaser may transfer pledged or secured Securities to the pledgees or secured parties. Such a pledge or transfer would not be subject to approval of the Company and no legal opinion of legal counsel of the pledgee, secured party or pledgor shall be required in connection therewith. Further, no notice shall be required of such pledge. At the Company's expense, the Company will execute and deliver such reasonable documentation as a pledgee or secured party of Securities may reasonably request in connection with a pledge or transfer of the Securities.

4.2 **Acknowledgment of Dilution**. The Company acknowledges that the issuance of the Securities may result in dilution of the outstanding shares of Common Stock, which dilution may be substantial under certain market conditions. The Company further acknowledges that its obligations under the Transaction Documents are unconditional and absolute and not subject to any right of set off, counterclaim, delay or reduction, regardless of the effect of any such dilution or any claim the Company may have against any Purchaser and regardless of the dilutive effect that such issuance may have on the ownership of the other stockholders of the Company.

4.3 **[Reserved].**

4.4 **Integration**. The Company shall not sell, offer for sale or solicit offers to buy or otherwise negotiate in respect of any security (as defined in Section 2 of the Securities Act) that would be integrated with the offer or sale of the Securities in a manner that would require the registration under the Securities Act of the sale of the Securities or that would be integrated with the offer or sale of the Securities for purposes of the rules and regulations of any Trading Market such that it would require shareholder approval prior to the closing of such other transaction unless shareholder approval is obtained before the closing of such subsequent transaction.

4.5 **[Reserved]**.

4 . 6 **Shareholder Rights Plan**. No claim will be made or enforced by the Company or, with the consent of the Company, any other Person, that any Purchaser is an "acquiring person" (or similar or equivalent term) under any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or similar anti-takeover plan or arrangement in effect or hereafter adopted by the Company, or that any Purchaser could be deemed to trigger the provisions of any such plan or arrangement, by virtue of receiving Securities under the Transaction Documents or under any other agreement between the Company and any Purchaser.

4 . 7 **Material Non-Public Information**. Except with respect to the material terms and conditions of the transactions contemplated by the Transaction Documents, each Company Party covenants and agrees that neither it, nor any of its Affiliates, nor any other Person acting on its behalf, will, subsequent to the Company's initial public offering, provide any Purchaser, any Purchaser Party or their respective agents or counsel with any information that any Company Party believes constitutes material non-public information, unless prior thereto such information is disclosed to the public, or such Purchaser shall have entered into a written agreement with the Company regarding the confidentiality and use of such information. There has been no public announcement of a pending or proposed Fundamental Transaction or Change of Control Transaction (as each such term is defined in the Notes) that has not been consummated. No Purchaser has been provided by any Company Party or any Related Party of any Company Party any information, that constitutes, or may constitute, material non-public information with respect to any Company Party. The Company understands and confirms that each Purchaser shall be relying on the foregoing representations, warranties and covenants in effecting transactions in securities of the Company.

4.8 **Use of Proceeds**. The Company Parties shall use the net proceeds as set forth in **Schedule 4.8**.

4 . 9 **Indemnification of Each Purchaser Party**. Each Company Party shall, jointly and severally, indemnify against, and hold harmless from, each Purchaser, the Collateral Agent, their Related Parties, each Person who controls any of them (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and their agents, contractors, trustees, representatives and advisors (each, a "**Purchaser Party**") any and all Losses that any Purchaser Party may suffer or incur as a result of or relating to (a) the administration, performance or enforcement by the Purchasers of any of the Transaction Documents or consummation of any transaction described therein, (b) the existence of, perfection of, a Lien upon or the sale or collection of, or any other damage, Loss, failure to return or other realization upon any collateral, (c) the failure of any Company Party or any of their Related Parties (whether directly or through their agents, contractors, trustees, representatives and advisors) to observe, perform or discharge any of the covenants or duties under any of the Transaction Documents, (d) any Proceeding, whether or not any Purchaser Party is a party thereto (including Proceedings instituted by any Governmental Authority or any holder of any equity interest in, or other direct or indirect investor in, the Company who is not an Affiliate of such Purchaser Party) with respect to any of the Transaction Documents or the transactions contemplated therein. Additionally, if any Taxes (excluding Taxes imposed upon or measured solely by the net income of the recipient of any payment made under any Transaction Document, but including any intangibles tax, stamp tax, recording tax or franchise tax) shall be imposed on any Company Party or Purchaser Party, whether or not lawfully payable, on account of the execution or delivery of this Agreement, or the execution, delivery, issuance or recording of any of the other Transaction Documents, or the creation or repayment of any of obligations hereunder, by reason of any applicable Regulations now or hereafter in effect, each Company shall, jointly and severally, pay (or shall promptly reimburse such Purchaser Party for the payment of) all such Taxes, including any interest, penalties, expenses and other Losses with respect thereto), and will indemnify and hold the Purchaser Parties harmless from and against all Losses arising therefrom or in connection therewith. **The foregoing indemnities shall not apply to Losses incurred by any Purchaser Party as a result of its own gross negligence or willful misconduct as determined by a final non-appealable order of a court of competent jurisdiction.** Notwithstanding anything to the contrary in any Transaction Document, the obligations of the Company Parties with respect to each indemnity given by them in this Agreement or any of the other Transaction Documents in favor of the Purchaser Parties shall survive the payment in full of the Notes and the termination of this Agreement. The indemnification required by this **Section 4.9** shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as and when bills are received or are incurred. The indemnification contained herein shall be in addition to any cause of action or similar right of any Purchaser Party against any Company Party or others and any liabilities any Company Party may be subject to pursuant to any Regulation.

4.10 **Right of First Refusal.**

(a) For so long as any of the Notes remain outstanding, upon any issuance by the Company of Common Stock, Common Stock Equivalents or other Indebtedness or other securities, whether for cash consideration or a combination of units thereof (a "**Subsequent Financing**"), each Purchaser with outstanding Notes shall have the right to participate up to its Pro Rata Portion (measured against all Purchasers) of a percentage of such Subsequent Financing equal to, in the aggregate for all Purchasers, one hundred percent (100%) in case of any offering (the "**ROFR Participation Maximum**") on the same terms, conditions and price provided for in the Subsequent Financing (the "**ROFR**"). For the avoidance of doubt, the ROFR will not apply to the Initial Public Offering.

(b) At least three (3) Trading Days in case of a Subsequent Financing structured as a public offering or as an "overnight" or "intraday" deal or other similar transaction prior to the closing of a Subsequent Financing, the Company shall deliver to each Purchaser a written notice of its intention to effect a Subsequent Financing ("**Pre-Notice**"), which Pre-Notice shall ask such Purchaser if it wants to review the details of such financing (each additional notice containing such details, a "**Subsequent Financing Notice**"). Upon the request of any Purchaser for a Subsequent Financing Notice, and only upon such a request, the Company shall promptly, but no later than one (1) Trading Day after such request, deliver a Subsequent Financing Notice to such Purchaser. The Subsequent Financing Notice shall describe in reasonable detail the proposed terms of such Subsequent Financing, the amount of proceeds intended to be raised thereunder and the Persons through or with whom such Subsequent Financing is proposed to be effected, the Pro Rata Portion (as defined below) of the ROFR Participation Maximum of such Purchaser, an inquiry as to whether such Purchaser is willing to participate above their Pro Rata Portion (and what is the maximum amount such Purchaser is willing to commit), and shall include a term sheet or similar document relating thereto as an attachment. In addition to such other remedies available to a Purchaser, in the event that the Company fails to provide the Pre Notice required by this **Section 4.10(b)**, then each Purchaser shall be entitled to exercise its rights under Section 4.10 until sixty (60) days after the closing of the particular Subsequent Financing, and the Purchaser may deem the failure to give any notice required hereunder an Event of Default under any Note.

(c) If any Purchaser desires to participate in such Subsequent Financing, such Purchaser must provide written notice to the Company within one (1) Business Day of receipt of the Subsequent Financing Notice (two (2) hours in the event of a Subsequent Financing structured as a public offering or as an "overnight" or "intraday" deal or other similar transaction) that such Purchaser is willing to participate in the Subsequent Financing, the maximum amount for which such Purchaser would be willing to participate if it is allocated to it (up to the ROFR Participation Maximum), and representing and warranting that the Purchaser has such funds ready, willing, and available for investment on the terms set forth in the Subsequent Financing Notice. A Purchaser's election not to participate in any Subsequent Financing shall not waive such Purchaser's rights to participate in future Subsequent Financings.

(d) At first, each Purchaser shall first have the right to purchase its Pro Rata Portion (measured against Purchaser) of the ROFR Participation Maximum. If some Purchasers have declined to participate in such Subsequent Financing, and some portion of the ROFR Participation Maximum remains unallocated, each Purchaser having agreed to participate above its current allocation shall be allocated its Pro Rata Portion (measured against Purchaser having so agreed) of the next dollar – and so on and so forth until the ROFR Participation Maximum shall be fully allocated or Purchaser shall have been given their desired allocation in full.

(e) The transaction documents related to any Subsequent Financing applicable to any Purchaser participating in such Subsequent Financing shall not include any term or provision whereby such Purchaser shall be required to agree to any restrictions on trading as to any of the Securities purchased hereunder. In addition, the transaction documents related to the Subsequent Financing shall not include any requirement to consent to any amendment to or termination of, or grant any waiver, release or other modification or the like under or in connection with, this Agreement, without the prior written consent of the number of Purchaser required hereunder to consent to this amendment, termination, waiver, consent, release or other modification.

(f) Notwithstanding anything to the contrary in this **Section 4.10** and unless otherwise agreed to by the applicable Purchaser, the Company shall either confirm in writing to each Purchaser that the transaction with respect to the Subsequent Financing has been abandoned or shall publicly disclose its intention to issue the securities in the Subsequent Financing, if the Company is then subject to the reporting requirements of the Exchange Act, in either case in such a manner such that each Purchaser will not be in possession of any material, non-public information, by the fifth (5^h) Trading Day following delivery of the Subsequent Financing Notice. If by such fifth (5^{th}) Trading Day, no public disclosure regarding a transaction with respect to the Subsequent Financing has been made, and no notice regarding the abandonment of such transaction has been received by the Purchaser, such transaction shall be deemed to have been abandoned and the Purchaser shall not be deemed to be in possession of any material, non-public information with respect to the Company or any of its Subsidiaries in addition to other remedies available to a Purchaser. In addition to such other remedies available to a Purchaser, in the event that the Company fails to provide the notice required by this **Section 4.10(b)**, then each Purchaser shall be entitled to exercise its rights under **Section 4.10** until thirty (30) days after the closing of the particular Subsequent Financing and Purchaser may deem the failure to give any notice required hereunder an Event of Default under the Note.

(g) Notwithstanding the foregoing, this **Section 4.10** shall not apply in respect of an Exempt Issuance.

4.11 **Right of Participation.**

(a) If the ROFR is not exercised, for so long as any of the Notes remain outstanding, upon any Subsequent Financing, each Purchaser shall have the right to participate up to its Pro Rata Portion (measured against all Purchasers) of a percentage of such Subsequent Financing, in the aggregate for all Purchasers, in an amount equal to thirty-three percent (33%) in case of any Subsequent Financing on the same terms, conditions and price provided for in the Subsequent Financing (the "**Right of Participation**"). For the avoidance of doubt, the Right of Participation will not apply to the Initial Public Offering.

(b) At least three (3) Business Days (four (4) hours in case of a Subsequent Financing structured as a public offering or as an "overnight" or "intraday" deal or other similar transaction) prior to the closing of a Subsequent Financing, the Company shall deliver to each Purchaser a Pre-Notice, which Pre-Notice shall ask such Purchaser if it wants to review the details of such financing. Upon the request of any Purchaser for a Subsequent Financing Notice, and only upon such a request, the Company shall promptly, but no later than one (1) Business Day after such request, deliver a Subsequent Financing Notice to such Purchaser. The Subsequent Financing Notice shall describe in reasonable detail the proposed terms of such Subsequent Financing, the amount of proceeds intended to be raised thereunder and the Persons through or with whom such Subsequent Financing is proposed to be effected, the Pro Rata Portion (as defined below) of the Participation Maximum of such Purchaser, an inquiry as to whether such Purchaser is willing to participate above their Pro Rata Portion (and what is the maximum amount such Purchaser is willing to commit), and shall include a term sheet or similar document relating thereto as an attachment. In addition to such other remedies available to a Purchaser, in the event that the Company fails to provide the Pre Notice required by this **Section 4.11(b)**, then each Purchaser shall be entitled to exercise its rights under **Section 4.11** until sixty (60) days after the closing of the particular Subsequent Financing, and the Purchaser may deem the failure to give any notice required hereunder an Event of Default under any Note.

(c) If any Purchaser desires to participate in such Subsequent Financing, such Purchaser must provide written notice to the Company within one (1) Business Day of receipt of the Subsequent Financing Notice (two (2) hours in the event of a Subsequent Financing structured as a public offering or as an "overnight" or "intraday" deal or other similar transaction) that such Purchaser is willing to participate in the Subsequent Financing, the maximum amount for which such Purchaser would be willing to participate if it is allocated to it (up to the Participation Maximum), and representing and warranting that the Purchaser has such funds ready, willing, and available for investment on the terms set forth in the Subsequent Financing Notice. A Purchaser's election not to participate in any Subsequent Financing shall not waive such Purchaser's rights to participate in future Subsequent Financings.

(d) At first, each Purchaser shall first have the right to purchase its Pro Rata Portion (measured against Purchaser) of the Participation Maximum. If some Purchasers have declined to participate in such Subsequent Financing, and some portion of the Participation Maximum remains unallocated, each Purchaser having agreed to participate above its current allocation shall be allocated its Pro Rata Portion (measured against Purchaser having so agreed) of the next dollar – and so on and so forth until the Participation Maximum shall be fully allocated or Purchaser shall have been given their desired allocation in full.

(e) The transaction documents related to any Subsequent Financing applicable to any Purchaser participating in such Subsequent Financing shall not include any term or provision whereby such Purchaser shall be required to agree to any restrictions on trading as to any of the Securities purchased hereunder. In addition, the transaction documents related to the Subsequent Financing shall not include any requirement to consent to any amendment to or termination of, or grant any waiver, release or other modification or the like under or in connection with, this Agreement, without the prior written consent of the number of Purchaser required hereunder to consent to this amendment, termination, waiver, consent, release or other modification.

(f) Notwithstanding anything to the contrary in this **Section 4.11** and unless otherwise agreed to by the applicable Purchaser, the Company shall either confirm in writing to each Purchaser that the transaction with respect to the Subsequent Financing has been abandoned or shall publicly disclose its intention to issue the securities in the Subsequent Financing, if the Company is then subject to the reporting requirements of the Exchange Act, in either case in such a manner such that each Purchaser will not be in possession of any material, non-public information, by the fifth (5^{th}) Trading Day following delivery of the Subsequent Financing Notice. If by such fifth (5^{th}) Trading Day, no public disclosure regarding a transaction with respect to the Subsequent Financing has been made, and no notice regarding the abandonment of such transaction has been received by the Purchaser, such transaction shall be deemed to have been abandoned and the Purchaser shall not be deemed to be in possession of any material, non-public information with respect to the Company or any of its Subsidiaries in addition to other remedies available to a Purchaser. In addition to such other remedies available to a Purchaser, in the event that the Company fails to provide the notice required by this **Section 4.11(b)**, then each Purchaser shall be entitled to exercise its rights under **Section 4.11** until thirty (30) days after the closing of the particular Subsequent Financing and Purchaser may deem the failure to give any notice required hereunder an Event of Default under the Note.

(g) Notwithstanding the foregoing, this **Section 4.11** shall not apply in respect of an Exempt Issuance.

4.12 **Publicity; Other Filings.**

(a) **Public Disclosures.** The Company and the Purchasers shall consult with each other in issuing any public disclosure with respect to the transactions contemplated hereby, and none of the Company or any Purchaser shall issue any such public disclosure nor otherwise make any such public statement without the prior consent of the Company, with respect to any press release of any Purchaser, or without the prior consent of the Required Purchasers, with respect to any press release of the Company, which consent shall not unreasonably be withheld or delayed, except if such disclosure is reasonably viewed as required by any Regulation, in which case the disclosing party shall promptly provide the other party with prior notice of such public statement or communication. Notwithstanding the foregoing, the Company shall not publicly disclose the name, trademark, service mark, symbol, logo (or any abbreviation, contraction or simulation thereof) of, or otherwise refer to, any Purchaser (including in any filing with the Commission, regulatory agency or Trading Market) without the prior consent of the Purchaser (including in any press release, letterhead, public announcement or marketing material), except, and then only after consulting with such Purchaser, to the extent required to do so under applicable Regulations (including as required in any registration statement filed with the Commission). None of the Company Parties and their Affiliates shall represent that any Company Party or any of its Affiliates, any product or service of the Company Parties or their Affiliates, or any know how or policy or practice of the Company Parties or their Affiliates has been approved or endorsed by any Purchaser Party.

(b) **Credit Report and Other Authorizations.** Each Company Party authorizes the Purchaser Parties, their agents and representatives and any credit reporting agency engaged by any Purchaser Party, to (i) investigate any references given or any other statements or data obtained from or about the Company Parties for the purpose of the Transaction Documents, (ii) obtain consumer business credit reports on the Company Parties, (iii) contact personal and business references provided by any Company Parties, at any time now or for so long as any amounts remains unpaid under the Transaction Documents, and (iv) share information regarding the Company Parties' performance under this Agreement with affiliates and unaffiliated third parties.

(c) **Credit Inquiries.** Each Company Party hereby authorizes the Purchasers (but they shall have no obligation) to respond to usual and customary credit inquiries from third parties concerning any Company Party.

4.13 **Form D; Blue Sky Filings**. The Company agrees to timely file a Form D with respect to the Securities as required under Regulation D and to provide a copy thereof, promptly upon request of any Purchaser. The Company shall take such action as the Company shall reasonably determine is necessary in order to obtain an exemption for, or to qualify the Securities for, sale to the Purchasers at the Closing under applicable securities or "Blue Sky" laws of the states of the United States, and shall provide evidence of such actions promptly upon request of any Purchaser. The Lead Investor shall provide the Company with such information as it may require in connection to make such filing and to obtain such exemptions and/or qualifications.

4.14 **Resale Registration Statement.**

(a) As soon as practicable (and in any event within one hundred and twenty (180) calendar days of the date on which the Initial Public Offering closes (the "**Filing Date**")), the Company shall file a registration statement on Form S-1 (the "**Resale Registration Statement**") providing for the resale by the Purchasers of the Conversion Shares and the Consideration Shares or shall include such Conversion Shares and Consideration Shares in any other registration statement on Form S-1 filed by the Company. The Company shall use commercially reasonable efforts to cause such registration to become effective within sixty (60) days following the Filing Date (unless the Commission notified the Company that it will perform a "full" review of the Resale Registration Statement, in which case the Company shall cause such registration to become effective within ninety (90) days following the Filing Date such 60-day or 90-day period is referred to as the "**Effectiveness Date**"), and to keep such Resale Registration Statement effective at all times (except for any periods in connection with the filing of post-effective amendments as reasonably determined by Company's counsel to be required) until no Purchaser owns any Notes and Conversions Shares issuable upon conversion of the Notes or any Consideration Shares.

(b) If: (i) the Resale Registration Statement is not filed on or prior to its Filing Date, (ii) if the Company fails to file with the Commission a request for acceleration of the Resale Registration Statement in accordance with Rule 461 promulgated by the Commission pursuant to the Securities Act, within five (5) Trading Days of the date that the Company is notified (orally or in writing, whichever is earlier) by the Commission that such Resale Registration Statement will not be "reviewed" or will not be subject to further review, or (iii) a Resale Registration Statement registering for resale all of the Securities to be registered thereunder (the "**Registrable Securities**") is not declared effective by the Commission by the Effectiveness Date, or (iv) after the effective date of the Resale Registration Statement, such Resale Registration Statement ceases for any reason to remain continuously effective as to all Registrable Securities included in such Resale Registration Statement, or the holders of the Registrable Securities (the "**Holders**") are otherwise not permitted to utilize the prospectus included therein to resell such Registrable Securities, for more than ten (10) consecutive calendar days or more than an aggregate of fifteen (15) calendar days (which need not be consecutive calendar days) during any 12-month period (any such failure or breach being referred to as an "**Event**", and for purposes of clauses (i) and (iii), the date on which such Event occurs, and for purpose of clause (ii) the date on which such five (5) Trading Day period is exceeded, and for purpose of clause (iv) the date on which such ten (10) or fifteen (15) calendar day period, as applicable, is exceeded being referred to as an "**Event Date**"), then, in addition to any other rights the Holders may have hereunder or under applicable law, on each such Event Date and on each monthly anniversary of each such Event Date (if the applicable Event shall not have been cured by such date) until the applicable Event is cured, the Company shall pay to each Holder an amount in cash, as partial liquidated damages and not as a penalty, equal to the product of 2.0% multiplied by the aggregate Subscription Amount paid by such Holder pursuant to the Purchase Agreement. If the Company fails to pay any partial liquidated damages pursuant to this Section in full within seven (7) days after the date payable, the Company will pay interest thereon at a rate of 8% per annum (or such lesser maximum amount that is permitted to be paid by applicable law) to the Holder, accruing daily from the date such partial liquidated damages are due until such amounts, plus all such interest thereon, are paid in full. The partial liquidated damages pursuant to the terms hereof shall apply on a daily pro rata basis for any portion of a month prior to the cure of an Event.

4.15 **Lock-Up Agreement from Holders**. Notwithstanding any other provision of this Agreement, as a condition to the issuance to any Initial Purchaser of any Securities hereunder, each Initial Purchaser shall be required to execute and deliver the Lock-Up Agreement in respect of such Securities issued to such Initial Purchasers.

ARTICLE V COLLATERAL AGENT

5.1 **Appointment.** Each Purchaser hereby irrevocably appoints Balmoral, to act on its behalf as the Collateral Agent hereunder and under the other Transaction Documents and authorizes the Collateral Agent to take such actions on its behalf and to exercise such powers as are delegated to the Collateral Agent by the terms hereof or thereof, together with such actions and powers as are reasonably incidental thereto. The provisions of this ARTICLE V are solely for the benefit of the Collateral Agent and the Purchasers, and no Company Party will have any rights as a third-party beneficiary of any of such provisions. It is understood and agreed that the use of the term "agent" herein or in any other Transaction Documents (or any other similar term) with reference to the Collateral Agent is not intended to connote any fiduciary or other implied (or express) obligations arising under agency doctrine of any Applicable Law. Instead, such term is used as a matter of market custom, and is intended to create or reflect only an administrative relationship between contracting parties.

5.2 **Rights as a Purchaser.** The Person serving as the Collateral Agent hereunder has the same rights and powers in its capacity as an Initial Purchaser and Purchaser as any other Initial Purchaser and Purchaser and may exercise the same as though it were not the Collateral Agent, and the terms "Initial Purchaser", "Initial Purchasers," "Purchaser" or "Purchasers" will, unless otherwise expressly indicated or unless the context otherwise requires, include the person serving as the Collateral Agent hereunder in its individual capacity to the extent such Person is an Initial Purchaser or, as the case may be, Purchaser. Such Person and its Affiliates may accept payments from, lend money to, own securities of, and generally engage in any kind of business with, the Company, any Company Party or any other Subsidiaries or Affiliates of the Company as if such Person were not the Collateral Agent hereunder and without any duty to account therefor to the Purchasers.

5.3 **Exculpatory Provisions.**

(a) The Collateral Agent will not have any duties or obligations except those expressly set forth herein and in the other Transaction Documents, and its duties hereunder are administrative in nature. Without limiting the generality of the foregoing, the Collateral Agent:

(i) will not be subject to any fiduciary or other implied duties, regardless of whether an Event of Default has occurred and is continuing;

(ii) will not have any duty to take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby or by the other Transaction Documents that the Collateral Agent is required to exercise as directed in writing by the Required Holders (or such other number or percentage of the Purchasers as will be expressly provided for herein or in the other Transaction Documents); **provided,** that the Collateral Agent will not be required to take any action that, in its opinion or the opinion of its counsel, may expose the Collateral Agent to liability or that is contrary to any Transaction Document or any applicable statutes, rules, ordinances, regulations guidance documents, contract terms, and other requirements of all applicable governmental authorities, including any action that may be in violation of the automatic stay under any bankruptcy or insolvency; and

(iii) will not, except as expressly set forth herein and in the other Transaction Documents, have any duty to disclose, and will not be liable for the failure to disclose, any information relating to the Companies or any of its Subsidiaries or Affiliates that is communicated to or obtained by the Person serving as the Collateral Agent or any of its Affiliates in any capacity.

(b) The Collateral Agent will not be liable for any action taken or not taken by it (i) with the consent or at the request of the Required Purchasers (or such other number or percentage of the Purchasers as will be necessary, or as the Collateral Agent believes in good faith will be necessary, under the circumstances), or (ii) in the absence of its own gross negligence or willful misconduct as determined by a court of competent jurisdiction by final and nonappealable judgment. The Collateral Agent will be deemed not to have knowledge of any Event of Default unless and until notice describing such Event of Default is given to the Collateral Agent in writing by the Companies or a Purchaser.

(c) The Collateral Agent will not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with this Agreement or any other Transaction Document, (ii) the contents of any certificate, report or other document delivered hereunder or thereunder or in connection herewith or therewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth herein or therein or the occurrence of any Event of Default, (iv) the validity, enforceability, effectiveness or genuineness of this Agreement, any other Transaction Document or any other agreement, instrument or document or (v) the satisfaction of any condition set forth herein, other than to confirm receipt of items expressly required to be delivered to the Collateral Agent.

5.4 **Reliance by Collateral Agent**. The Collateral Agent will be entitled to rely upon, and will not incur any liability for relying upon, any notice, request, certificate, consent, statement, instrument, document or other writing (including any electronic message, Internet or intranet website posting or other distribution) believed by it to be genuine and to have been signed, sent or otherwise authenticated by the proper Person. The Collateral Agent also may rely upon any statement made to it orally or by telephone and believed by it to have been made by the proper Person, and will not incur any liability for relying thereon. In determining compliance with any condition hereunder that by its terms must be fulfilled to its satisfaction, the Collateral Agent may make such determination in its sole discretion, and in determining compliance with any condition hereunder that by its terms must be fulfilled to the satisfaction of a Purchaser, the Collateral Agent may presume that such condition is satisfactory to such Purchaser unless the Collateral Agent has received notice to the contrary from such Purchaser prior to the issuance of the Notes. The Collateral Agent may consult with legal counsel (who may be counsel for the Companies), independent accountants and other experts selected by it, and will not be liable for any action taken or not taken by it in accordance with the advice of any such counsel, accountants or experts.

5.5 **Delegation of Duties**. The Collateral Agent may perform any and all of its duties and exercise its rights and powers hereunder or under any other Transaction Document by or through any one or more sub-agents appointed by the Collateral Agent. The Collateral Agent and any such sub-agent may perform any and all of its duties and exercise its rights and powers by or through their respective Affiliates. The exculpatory provisions of this Section will apply to any such sub-agent and to the Affiliates of the Collateral Agent and any such sub-agent, and will apply to their respective activities in connection with the syndication of the facility as well as activities as Collateral Agent. The Collateral Agent will not be responsible for the negligence or misconduct of any sub-agents except to the extent that a court of competent jurisdiction determines in a final and nonappealable judgment that the Collateral Agent acted with gross negligence or willful misconduct in the selection of such sub-agents.

5.6 **Resignation of Collateral Agent.**

(a) The Collateral Agent may at any time give notice of its resignation to the Purchasers and the Companies, which notice shall set forth the effective date of such resignation (the "**Resignation Effective Date**"), such date not to be earlier than the thirtieth (30^{th}) day following the date of such notice. The Required Purchasers and the Companies shall mutually agree upon a successor to the Collateral Agent. If the Required Purchasers and the Companies are unable to so mutually agree and no successor shall have been appointed within twenty-five (25) days after the retiring Collateral Agent gives notice of its resignation, then the retiring Collateral Agent may (but will not be obligated to), on behalf of the Purchasers, appoint a successor Collateral Agent it shall designate (in its reasonable discretion after consultation with the Companies and the Required Purchasers). Whether or not a successor has been appointed, such resignation will become effective in accordance with such notice on the Resignation Effective Date.

(b) With effect from the Resignation Effective Date (i) the retiring Collateral Agent will be discharged from its duties and obligations hereunder and under the other Transaction Purchasers under any of the Transaction Documents, the retiring Collateral Agent will continue to hold such Collateral until such time as a successor Collateral Agent is appointed) and (ii) except for any indemnity payments owed to the retiring Collateral Agent, all payments, communications and determinations provided to be made by, to or through the Collateral Agent will instead be made by or to each Purchaser directly, until such time, if any, as the Required Purchasers appoint a successor Collateral Agent as provided for above. Upon the acceptance of a successor's appointment as Collateral Agent hereunder, such successor will succeed to and become vested with all of the rights, powers, privileges and duties of the retiring Collateral Agent (other than any rights to indemnity payments owed to the retiring Collateral Agent), and the retiring Collateral Agent will be discharged from all of its duties and obligations hereunder or under the other Transaction Documents. The fees payable by the Company to a successor Collateral Agent will be the same as those payable to its predecessor unless otherwise agreed between the Companies and such successor. After the retiring Collateral Agent's resignation hereunder and under the other Transaction Documents, the provisions of this Article VI will continue in effect for the benefit of such retiring Collateral Agent, its sub-agents and their respective Affiliates in respect of any actions taken or omitted to be taken by any of them while the retiring Collateral Agent was acting as Collateral Agent.

5.7 **Non-Reliance on Collateral Agent and Other Purchasers**. Each Purchaser acknowledges that it has, independently and without reliance upon the Collateral Agent or any other Purchaser or any of their Affiliates and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Agreement. Each Purchaser also acknowledges that it will, independently and without reliance upon the Collateral Agent or any other Purchaser or any of their Affiliates and based on such documents and information as it will from time to time deem appropriate, continue to make its own decisions in taking or not taking action under or based upon this Agreement, any other Transaction Document or any related agreement or any document furnished hereunder or thereunder.

5 . 8 **Collateral Agent May File Proofs of Claim**. In case of the pendency of any bankruptcy or insolvency proceeding or any other judicial proceeding relative to the Company, the Collateral Agent (irrespective of whether the principal of the Notes will then be due and payable as herein expressed or by declaration or otherwise and irrespective of whether the Collateral Agent has made any demand on the Company) will be entitled and empowered (but not obligated), by intervention in such proceeding or otherwise:

(a) to file and prove a claim for the whole amount of the principal and interest owing and unpaid in respect of the Notes and all other obligations that are owing and unpaid hereunder or under any other Transaction Document and to file such other documents as may be necessary or advisable in order to have the claims of the Purchasers and the Collateral Agent (including any claim for the reasonable compensation, expenses, disbursements and advances of the Purchasers and the Collateral Agent and their respective agents and counsel and all other amounts due the Purchasers and the Collateral Agent under this Agreement or any other Transaction Document) allowed in such judicial proceeding; and

(b) to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same.

Any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Purchaser to make any payments of the type described above in this **Section 5.8** to the Collateral Agent and, in the event that the Collateral Agent consents to the making of such payments directly to the Purchasers, to pay to the Collateral Agent any amount due for the reasonable compensation, expenses, disbursements and advances of the Collateral Agent and its agents and counsel, and any other amounts due the Collateral Agent under this Agreement or any other Transaction Document.

5 . 9 **Indemnification.** Each Purchaser agrees to indemnify the Collateral Agent and each of its Related Parties (to the extent not reimbursed by the Borrower), from and against such Purchaser's aggregate ratable share (based on the principal amount of the Notes held by the Purchasers) of any and all Losses that may be imposed on, incurred by, or asserted against, the Collateral Agent or any of its Related Parties in any way relating to or arising out of this Agreement or the other Transaction Documents or any action taken or omitted by the Collateral Agent under this Agreement or the other Transaction Documents; **provided**, that no Purchaser shall be liable for any portion of such Losses resulting from the Collateral Agent's or such Related Party's gross negligence or willful misconduct as finally determined by a court of competent jurisdiction. Without limiting the foregoing, each Purchaser agrees to reimburse the Collateral Agent and its Related Parties promptly upon demand for its ratable share of any out-of-pocket expenses (including fees, expenses and disbursements of financial and legal advisors) incurred by the Collateral Agent in connection with the preparation, execution, delivery, administration, modification, amendment or enforcement (whether through negotiations, legal proceedings or otherwise) of, or legal advice in respect of its rights or responsibilities under, this Agreement or the other Transaction Documents, to the extent that the Collateral Agent is not reimbursed for such expenses by the Company or another Company Party.

5.10 **Collateral Matters; Appointment of Collateral Agent under other Transaction Documents.**

(a) Without limiting the provisions of **Section 5.8**, the Purchasers irrevocably agree as follows:

(i) the Collateral Agent is authorized, at its option and in its discretion, to release any Lien on any property granted to or held by the Collateral Agent under any Transaction Document (A) on the date when all obligations have been satisfied in full in cash (other than contingent obligations as to which no claims have been asserted), (B) that is sold or otherwise disposed of or to be sold or otherwise disposed of as part of or in connection with any sale or other disposition permitted under the Transaction Documents, and

(ii) Upon request by the Collateral Agent at any time, each Purchaser will confirm in writing the Collateral Agent's authority to release or subordinate its interest in particular types or items of Collateral.

(b) The Collateral Agent will not be responsible for or have a duty to ascertain or inquire into any representation or warranty regarding the existence, value or collectability of the Collateral, the existence, priority or perfection of the Collateral Agent's lien thereon, or any certificate prepared by any Obligor in connection therewith, nor will the Collateral Agent be responsible or liable to the Purchasers for any failure to monitor or maintain any portion of the Collateral.

(c) Each Purchaser hereby appoints the Collateral Agent as its collateral agent under each of the Transaction Documents and agrees that, in so acting, the Collateral Agent will have all of the rights, protections, exculpations, indemnities and other benefits provided to the Collateral Agent under this Agreement, and hereby authorizes and directs the Collateral Agent, on behalf of such Purchaser and all Purchasers, without the necessity of any notice to or further consent from any of the Purchaser, from time to time to (i) take any action with respect to any collateral or any Transaction Document which may be necessary to perfect and maintain perfected the liens on the collateral granted pursuant to any such Transaction Document or protect and preserve the Collateral Agent's ability to enforce the liens or realize upon the collateral, (ii) act as collateral agent for each Purchaser that is a secured party for purposes of acquiring, holding, enforcing and perfecting all Liens created by the Transaction Documents and all other purposes stated therein, (iii) enter into non-disturbance or similar agreements in connection with licensing agreements and arrangements permitted by this Agreement and the other Transaction Documents and (iv) otherwise to take or refrain from taking any and all action that the Collateral Agent shall deem necessary or advisable in fulfilling its role as Collateral Agent under any of the Transaction Documents.

ARTICLE VI MISCELLANEOUS

6.1 **Termination and Survival**. This Agreement may be terminated by each Purchaser, as to the Purchaser's obligations hereunder only and without any effect whatsoever on the obligations between the Company and the other Purchasers, by written notice to the Company and the other Purchasers, if the Closing has not occurred on or before September 5, 2023. Termination of this Agreement will not affect the right of any party to sue for any breach by any other party (or parties) prior to such termination. The representations and warranties, covenants and other provisions hereof shall survive the Closing and the delivery of the Securities. Notwithstanding any termination of any Transaction Document, the reimbursement and indemnities to which the Purchaser Parties are entitled under the provisions of any Transaction Document shall continue in full force and effect and shall protect the Purchaser Parties against events arising after such termination as well as before.

6.2 **Fees and Expenses**. Each party shall pay the fees and expenses of its advisers, counsel, accountants and other experts, if any, and all other expenses incurred by such party incident to the negotiation, preparation, execution, delivery and performance of the Transaction Documents. The Company shall pay all stamp and other taxes and duties levied in connection with the sale of the Note and the Consideration Shares. The foregoing shall not be construed to limit any other provisions of the Transaction Documents regarding indemnification and costs and expenses to be paid by the Company Parties.

6 . 3 **Modifications and Signatures**. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of any party to exercise any right hereunder in any manner impair the exercise of any such right. Any modification effected in accordance with accordance with this **Section 6.3** shall be binding upon each Purchaser and holder of Securities and the Company.

(a) **Entire Agreement.** This Agreement and the other Transaction Documents contain and constitute the entire agreement of the parties with respect to the subject matter hereof and supersede all prior negotiations, agreements, and understandings, whether written or oral, of the parties hereto, which the parties acknowledge have been merged into such documents.

(b) **Amendments**. No amendment, modification or termination of any provision of this Agreement or any other Transaction Document shall be effective without the written consent of the Company and the Required Purchasers (or such other number of Purchasers as expressly stated in other provisions of the Transaction Documents); **provided**, that (i) if any amendment, modification or waiver disproportionately and adversely impacts a Purchaser (or group of Purchasers), the consent of holders of a majority of the principal amount of the Notes held by such disproportionately impacted Purchaser (or group of Purchasers) shall also be required and (ii) this clause (b) may only be modified with the consent of all Purchasers. No waiver or consent shall be effective against any party unless given in writing and then any such waiver shall then be effective only in the specific instance and for the specific purpose for which it was given. Where the consent or waiver of the Purchasers generally (and not each Purchaser) is required, it may be given by the Required Purchasers.

(c) **Successors and Assigns.** This Agreement shall bind and inure solely to the benefit of the Company Parties, the Purchaser Parties, and their respective successors and, if permitted, assigns; **provided**, that the Company Parties may not assign this Agreement or any other Transaction Document or any rights or obligations hereunder or thereunder without the Required Purchaser's prior written consent and any prohibited assignment shall be absolutely void. Unless otherwise expressly provided in any Transaction Document, each Purchaser may sell, assign, transfer, negotiate or grant participations in all or any part of, or any interest in, or any right or remedy under, the Securities and the Transaction Documents without the consent of the Company Parties; **provided**, that any transferee of the Securities shall agree in writing to be bound, with respect to the transferred Securities, by the provisions of the Transaction Documents that apply to the "Purchaser" (and any attempt to effect such transfer without securing such agreement shall be null and void).

(d) **No Waiver by Course of Dealing**. No notice to or demand on any Company Party, whether or not in any Proceeding, pursuant to any Transaction Document shall entitle any Company Party to any other or further notice (except as specifically required hereunder or under any other Transaction Document) or demand in similar or other circumstances. The failure by any Purchaser Party at any time or times to require strict performance by any Company Party of any provision of this Agreement or any of the other Transaction Documents or the granting of any waiver or indulgence shall not waive, affect or otherwise diminish any right of any Purchaser Party thereafter to demand strict compliance and performance with such provision, shall not affect or be a waiver under any other provision of any Transaction Document except as specifically mentioned and shall not constitute a course of dealing by such Purchaser Party at variance with the terms of this Agreement or any other Transaction Document (and therefore, among other things, shall not require further notice by such Purchaser Party of its intent to require strict adherence to the terms of such Transaction Document in the future). Any such actions shall not in any way affect the ability of each Purchaser Party, in its discretion, to exercise any rights available to it under this Agreement, the other Transaction Documents or under applicable Regulations.

(e) **Execution in Counterparts**. This Agreement may be executed in counterparts and by different parties on separate counterparts, each of which, when executed and delivered, shall be deemed to be an original, and both of which, when taken together, shall constitute but one and the same Agreement. In proving this Agreement in any judicial proceedings, it shall not be necessary to produce or account for more than one such counterpart signed by the party against whom such enforcement is sought.

(f) **Electronic Signatures**. Each party agrees that the electronic signatures, whether digital or encrypted, of the parties included in this Agreement or any other Transaction Document are intended to authenticate this writing and to have the same force and effect as manual signatures. Electronic signature means any electronic sound, symbol, or process attached to or logically associated with a record and executed and adopted by a party with the intent to sign such record, including facsimile or email electronic signatures. The Borrower expressly agrees that this Agreement and all other Transaction Documents are "transferable records" as defined in applicable Regulations relating to electronic transaction and that it may be created, authenticated, stored, transmitted and transferred in a manner consistent with and permitted by such applicable Regulations.

6.4 **Notices.** Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of: (a) the time of transmission, if such notice or communication is delivered via email attachment at the email address as set forth on the signature pages attached hereto at or prior to 5:30 p.m. (New York City time) on a Business Day, (b) the next Business Day after the time of transmission, if such notice or communication is delivered via email attachment as set forth on the signature pages attached hereto on a day that is not a Business Day or later than 5:30 p.m. (New York City time) on any Business Day, (c) the second (2nd) Business Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service or (d) upon actual receipt by the party to whom such notice is required to be given. The address for such notices and communications shall be as set forth on the signature pages attached hereto.

6.5 **[Reserved]**.

6.6 **Governing Law.**

(a) **Except as otherwise expressly provided in any other Transaction Document, this Agreement, the other Transaction Documents and all claims, Proceedings and matters arising hereunder or thereunder or related hereto or thereto are governed by, and construed and enforced in accordance with, the laws of the State of Delaware.**

(b) Any Proceeding with respect to any Transaction Document may be brought exclusively in the Delaware State courts sitting in New Castle County or the federal courts of the United States of America for the District of Delaware and sitting in New Castle County. Each Company Party (i) accepts for itself and in respect of its property, generally and unconditionally, the non-exclusive jurisdiction of such courts, (ii) irrevocably waives any objection, including any objection to the laying of venue, based on the grounds of forum *non conveniens* or that such jurisdiction is improper or otherwise that such party is not subject to the jurisdiction of such courts, that it may now or hereafter have to the bringing of any Proceeding in those jurisdictions, (iii) irrevocably consents to the service of process of any court referred to above in any Proceeding by the mailing of copies of the process to the parties hereto as provided in **Section 5.4** and (iv) agrees that a final judgment in any such Proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law. Service effected as provided in this manner will become effective ten (10) calendar days after the mailing of the process. Notwithstanding the foregoing, nothing contained in any Transaction Document shall affect the right of any Purchaser Party to serve process in any other manner permitted by applicable Regulations or commence Proceedings or otherwise proceed against any Company Party in any other jurisdiction.

6.7 **Severability**. Any provision of any Transaction Document being held illegal, invalid or unenforceable in any jurisdiction shall not affect any part of such provision not held illegal, invalid or unenforceable, any other provision of any Transaction Document or any part of such provision in any other jurisdiction, so long as the economic or legal substance of the transactions contemplated hereby is not affected in any manner adverse to any party. In addition, upon any determination that any such term or other provision is invalid, illegal or incapable of being enforced, the parties hereto will negotiate in good faith to modify the relevant Transaction Document so as to effect the original intent of the parties as closely as possible in an acceptable manner to the end that the transactions contemplated hereby are fulfilled to the extent possible.

6.8 **Rescission and Withdrawal Right**. Notwithstanding anything to the contrary contained in (and without limiting any similar provisions of) any of the other Transaction Documents, whenever any Purchaser exercises a right, election, demand or option under a Transaction Document and the Company does not timely perform its related obligations within the periods therein provided, then such Purchaser may rescind or withdraw, in its sole discretion from time to time upon written notice to the Company, any relevant notice, demand or election in whole or in part without prejudice to its future actions and rights; **provided**, that in the case of a rescission of a conversion of any Note, such Purchaser shall be required to return any shares of Common Stock subject to any such rescinded conversion notice.

6 . 9 **Replacement of Securities**. If any certificate or instrument evidencing any Securities is mutilated, lost, stolen or destroyed, the Company shall issue or cause to be issued in exchange and substitution for and upon cancellation thereof (in the case of mutilation), or in lieu of and substitution therefor, a new certificate or instrument, but only upon receipt of evidence reasonably satisfactory to the Company of such loss, theft or destruction. The applicant for a new certificate or instrument under such circumstances shall also pay any reasonable third-party costs (including customary indemnity) associated with the issuance of such replacement Securities.

6.10 **Remedies.**

(a) In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, each Purchaser (severally and not jointly) and the Company will be entitled to specific performance under the Transaction Documents. The parties agree that monetary damages may not be adequate compensation for any loss incurred by reason of any breach of obligations contained in the Transaction Documents and hereby agree to waive and not to assert in any action for specific performance of any such obligation the defense that a remedy at law would be adequate.

(b) If any Company Party shall fail to discharge any covenant, duty or obligation hereunder or under any of the other Transaction Documents, each Purchaser may, in its discretion at any time, for the account and at the expense of the Company Parties jointly and severally, pay any amount or do any act required of such Company Party hereunder or under any of the other Transaction Documents or otherwise lawfully requested by any Purchaser (including buying-in Securities in the principal Trading Market of the Securities in case of failure by the Company to deliver Convertible Securities). All costs and expenses incurred by any Purchaser in connection with the taking of any such action shall be reimbursed to such Purchaser by the Company Party on demand with interest at the highest interest rate applicable to amounts due under the Notes of such Purchaser from the date such payment is made or such costs or expenses are incurred to the date of payment thereof. Any payment made or other action taken by any Purchaser under this **clause (b)** shall be without prejudice to any right to assert, and without waiver of, any breach of any Transaction Document and without prejudice to any Purchaser Party's right to proceed thereafter as provided herein or in any of the other Transaction Documents.

(c) The remedies provided in this Agreement and all other Transaction Documents shall be cumulative and in addition to all other remedies available under any Transaction Document, whether at law or in equity (including a decree of specific performance and/or other injunctive relief).

(d) Nothing in any Transaction Document shall limit the Purchaser Party's rights to pursue actual and consequential damages for any failure by any Company Party to comply with the terms of this Agreement or any other Transaction Document.

(e) An Event of Default will cause irreparable harm to the Purchasers and that the remedy at law for any such breach may be inadequate. Therefore, in the event of any such Event of Default, the Purchasers shall be entitled, in addition to all other available remedies, to an injunction restraining any such breach or any such threatened breach, without the necessity of showing economic loss and without any bond or other security being required.

6 . 1 1 **Marshaling; Payment Set Aside**. No Purchaser Party shall be under any obligation to marshal any property in favor of any Company Party or any other party or against or in payment of any amount due under any Transaction Document. To the extent that any Company Party makes a payment or payments to any Purchaser pursuant to any Transaction Document or any Purchaser Party enforces or exercises its rights thereunder, and such payment or payments or the proceeds of such enforcement or exercise or any part thereof are subsequently invalidated, declared to be fraudulent or preferential, set aside, recovered from, disgorged by or are required to be refunded, repaid or otherwise restored to any Company Party, a trustee, receiver or any other Person under any law (including any bankruptcy law, state or federal law, common law or equitable cause of action), then to the extent of any such restoration the obligation or part thereof originally intended to be satisfied, and all Liens, rights and remedies therefor, shall be revived and continued in full force and effect as if such payment had not been made or such enforcement or setoff had not occurred.

6.12 **Usury**. To the extent it may lawfully do so, each Company Party hereby agrees not to insist upon or plead or in any manner whatsoever claim, and will resist any and all efforts to be compelled to take the benefit or advantage of, usury laws wherever enacted, now or at any time hereafter in force, in connection with any claim, action or proceeding that may be brought by any Purchaser in order to enforce any right or remedy under any Transaction Document. Notwithstanding any provision to the contrary contained in any Transaction Document, it is expressly agreed and provided that the total liability of each Company Party under the Transaction Documents for payments in the nature of interest shall not exceed the maximum lawful rate authorized under applicable law (the "**Maximum Rate**") and, without limiting the foregoing, in no event shall any rate of interest or default interest, or both of them, when aggregated with any other sums in the nature of interest that any Company Party may be obligated to pay under the Transaction Documents exceed such Maximum Rate. It is agreed that if the maximum contract rate of interest allowed by law and applicable to the Transaction Documents is increased or decreased by statute or any official governmental action subsequent to the date hereof, the new maximum contract rate of interest allowed by law will be the Maximum Rate applicable to the Transaction Documents from the effective date thereof forward, unless such application is precluded by applicable law. If under any circumstances whatsoever, interest in excess of the Maximum Rate is paid by any Company Party to any Purchaser Party with respect to indebtedness evidenced by the Transaction Documents, such excess shall be applied by such Purchaser Party to the unpaid principal balance of any such indebtedness or be refunded to the Company, the manner of handling such excess to be at such Purchaser's election.

6.13 **Liquidated Damages**. The Company's obligations to pay any partial liquidated damages or other amounts owing under the Transaction Documents is a continuing obligation of the Company and shall not terminate until all unpaid partial liquidated damages and other amounts have been paid notwithstanding the fact that the instrument or security pursuant to which such partial liquidated damages or other amounts are due and payable shall have been canceled.

6.14 **Further Assurances**. The Company Parties agree to take such further actions as each Purchaser shall reasonably request from time to time in connection herewith to evidence, give effect to or carry out this Agreement and the other Transaction Documents and any of the transactions contemplated hereby or thereby.

6.15 **Interpretation**. The parties agree that each of them and/or their respective counsel have reviewed and had an opportunity to revise the Transaction Documents and, therefore, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of any Transaction Document. In addition, each and every reference to share prices and shares of Common Stock in any Transaction Document shall be subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of the Common Stock that occur after the date of this Agreement. Except as otherwise expressly provided in any Transaction Document, if the last or appointed day for the taking of any action or the expiration of any right required or granted under any Transaction Document shall not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day. As used in any Transaction Document, references to the singular will include the plural and vice versa and references to the masculine gender will include the feminine and neuter genders and vice versa, as appropriate. When used in any Transaction Document, unless otherwise expressly provided in such Transaction Document, (a) the words "**hereof**," "**herein**" and "**hereunder**" and words of similar import refer to such Transaction Document as a whole and not to any particular provision of such Transaction Document, (b) recital, article, section, subsection, schedule and exhibit references are references with respect to such Transaction Document unless otherwise specified, (c) any reference to any agreement shall include a reference to all recitals, appendices, exhibits and schedules to such agreement and, unless the prior written consent of any party is required hereunder and is not obtained, shall be a reference to such agreement as waived, amended, restated, supplemented or otherwise modified and (d) any reference to a specific Regulation shall be to such Regulation, as modified from time to time, together with any successor or replacement Regulation, in each case as in effect at the time of determination. Unless the context otherwise requires, when used in any Transaction Document, the following terms have the following meaning: (u) "**execution**," "**signed**," "**signature**" and words of like import shall be deemed to include electronic signatures and the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable Regulation, including the Federal Electronic Signatures in Global and National Commerce Act and any other similar state Regulation based on the Uniform Electronic Transactions Act, (v) "**incur**" means incur, create, make, issue, assume or otherwise become or remain directly or indirectly liable in respect of or responsible for, in each case whether directly or indirectly, as primary obligor or guarantor or endorser, and the terms "**incurrence**" and "**incurred**" and similar derivatives shall have correlative meanings, (w) "**knowledge**" of the any Company Party means the best knowledge of any officer, director or employee of such Company Party after due inquiry, (x) "**including**" means "including, without limitation," (y) "**asset**" and "**property**" have the same meaning and mean, "collectively, all rights and interests in tangible and intangible assets and properties, whether real, personal or mixed and including cash, capital stock, revenues, accounts, leasehold interests, contract rights and other rights under Permits and Contractual Obligations" and (z) "**documents**" and "**documentation**" have the same meaning and mean "collectively, all documents, drafts, instruments, agreements, indentures, certificates, forms, opinions, powers of attorney, notices, summons, reports, financial statements and other writings, however evidenced, whether in physical or electronic form." The headings in this Agreement are included for convenience of reference only and will not affect in any way the meaning or interpretation of this Agreement. All references in this Agreement or any other Transaction Document to statutes and regulations shall include all amendments of same and implementing regulations and any successor statutes and regulations; to any instrument or agreement (including any of the Transaction Documents) shall include any and all modifications and supplements thereto and any and all restatements, extensions or renewals thereof to the extent such modifications, supplements, restatements, extensions or renewals of any such documents are permitted by the terms hereof and thereof. An Event of Default shall be deemed to exist at all times during the period commencing on the date that such Event of Default occurs to the date on which such Event of Default is waived in writing pursuant to the relevant Note or, with respect to any Default, is cured within any period of cure expressly provided in the relevant Note. Whenever in any provision of any Transaction Document, any Purchaser is authorized to take or decline to take any action (including making any determination) in the exercise of its "**discretion**," such provision shall be understood to mean that such Purchaser may take or refrain to take such action in its sole discretion. References to times of the day in any Transaction Document shall refer to Eastern Time. In the computation of periods of time from a specified date to a later specified date, the word "**from**" means "from and including," the words "**to**" and "**until**" each mean "to but excluding" and the word "**through**" means "to and including." Time is of the essence of this Agreement and the other Transaction Documents. No provision of this Agreement or any of the other Transaction Documents shall be construed against or interpreted to the disadvantage of any party hereto by any Governmental Authority by reason of such party having or being deemed to have structured, drafted or dictated such provision. "**month**" (but not "calendar month") means each period from a date of determination to the day (including the Closing Date itself) in the next calendar month numerically-corresponding to such date (**provided,** that, if such calendar month does not have any such numerically-corresponding day, such numerically-corresponding day shall be deemed to be the last day of such calendar month).

6.16 **Waiver of Jury Trial and Certain Other Rights.**

(a) **The parties hereto hereby irrevocably and unconditionally waive, to the fullest extent permitted by applicable Regulations, any right that they may have to trial by jury of any claim or cause of action or in any Proceeding, directly or indirectly based upon or arising out of this Agreement or any Transaction Document (whether based on contract, tort or any other theory). Each party (a) certifies that no representative, agent, or attorney of any other party has represented, expressly or otherwise, that such other parties would not, in the event of litigation, seek to enforce the foregoing waiver and (b) acknowledges that it and the other parties have been induced to enter into this Agreement and the other Transaction Documents by, among other things, the mutual waivers and certifications in this section.**

(b) Each Company Party acknowledges and agrees that the foregoing waivers are a material inducement to the Purchasers to enter into and accept this Agreement. Each Company Party has reviewed the foregoing waivers with its legal counsel and has knowingly and voluntarily waived its jury trial rights following consultation with such legal counsel. In the event of litigation, this Agreement may be filed as a written consent to a trial by the court. This **Section 6.16** shall not restrict a party from exercising remedies under the UCC or from exercising pre-judgment remedies under applicable Regulations.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first written above.

CHROMOCELL THERAPEUTICS CORPORATION

Address for Notice: 4400 Route 9 South, Suite 1000, Freehold, NJ 07728

By: /s/Francis Knuettal II

Fax: _____

Name: Francis Knuettal II

Email: Frank@chromocell.com

Title: Interim Chief Executive Officer and Chief Financial Officer

[Signature Pages for Purchaser Follow]

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Purchaser: Sargeant Capital

Signature of Authorized Signatory of Purchaser: By: /s/ Dan Nir

Name: Dan Nir
Title: Managing Partner

Address for Notices to Purchaser:

Email:

EIN Number: _____

SECURITIES PURCHASE AGREEMENT FOR SARGEANT CAPITAL

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Purchaser: H&M Ventures II

Signature of Authorized Signatory of Purchaser: By: /s/ Michael Weiss

Name: Michael Weiss
Title: Director

Address for Notices to Purchaser:

Email:

EIN Number: _____

SECURITIES PURCHASE AGREEMENT FOR H&M VENTURES II

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Purchaser: Jacqueline Esposito

Signature of Authorized Signatory of Purchaser: By: /s/ Jacqueline Esposito

Name: Jacqueline Esposito
Title:

Address for Notices to Purchaser:

Email:

EIN Number: _____

SECURITIES PURCHASE AGREEMENT FOR JACQUELINE ESPOSITO

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Purchaser: Aperture Healthcare Ventures Ltd.

Signature of Authorized Signatory of Purchaser: By: /s/ Avi Wachtsman

Name: Avi Wachtsman
Title:

Address for Notices to Purchaser:

Email:

EIN Number: _____

SECURITIES PURCHASE AGREEMENT FOR APERTURE HEALTHCARE VENTURES LTD.

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Purchaser: MDB Merchants Park LLC

Signature of Authorized Signatory of Purchaser: By: /s/ Michael Bodner

Name: Michael Bodner
Title: Manager

Address for Notices to Purchaser:

Email:

EIN Number: _____

SECURITIES PURCHASE AGREEMENT FOR MDB Merchants Park LLC

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Purchaser: AME Equities LLC

Signature of Authorized Signatory of Purchaser: By: /s/ Ruth Friedman

Name: Ruth Friedman
Title: Manager

Address for Notices to Purchaser:

Email:

EIN Number: _____

SECURITIES PURCHASE AGREEMENT FOR AME EQUITIES LLC

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Purchaser: David E. Danovitch

Signature of Authorized Signatory of Purchaser: By: /s/ David E. Danovitch

Name: David E. Danovitch
Title:

Address for Notices to Purchaser:

Email:

EIN Number: _____

SECURITIES PURCHASE AGREEMENT FOR DAVID DANOVITCH

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Purchaser: John H. Riley

Signature of Authorized Signatory of Purchaser: By: /s/ John H. Riley

Name: John H. Riley
Title:

Address for Notices to Purchaser:

Email:

EIN Number: _____

SECURITIES PURCHASE AGREEMENT FOR JOHN RILEY

IN WITNESS WHEREOF, the undersigned have caused this Securities Purchase Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

Name of Purchaser: Balmoral Financial Group LLC

Signature of Authorized Signatory of Purchaser: By: /s/ Ezra Friedberg

Name: Ezra Friedberg
Title: General Partner

Address for Notices to Purchaser:

Email:

EIN Number: _____

SECURITIES PURCHASE AGREEMENT FOR BALMORAL FINANCIAL GROUP LLC

SCHEDULE I

PURCHASERS

1 – Name of Purchaser	2 – Initial Principal Amount of Notes	3 – Number of Consideration Shares	4 – Subscription Amount
Aperture Healthcare Ventures Ltd.	27,140.00	679	27,140.00
Sargeant Capital	3,739.42	94	3,739.42
MDB Merchants Park LLC	79,366.78	1,985	79,366.78
Balmoral Financial Group LLC	31,797.88	795	31,797.88
AME Equities LLC	27,910.44	698	27,910.44
H&M Ventures II	3,533.09	84	3,533.09
David Danovitch	10,000.00	250	10,000.00
John Riley	3,933.71	99	3,933.71
Zach Hirsch	706.62	18	706.62
Jacqueline Esposito	10,000.00	250	10,000.00

EXHIBIT A

FORM OF LOCK-UP AGREEMENT

EXHIBIT B

FORM OF NOTE

NEITHER THIS SECURITY NOR THE SECURITIES INTO WHICH THIS SECURITY IS CONVERTIBLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON CONVERSION OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.

Issue Date: September 1, 2023
Principal Amount: **US$[*]**

SENIOR SECURED CONVERTIBLE PROMISSORY NOTE
DUE MARCH 1, 2024

THIS SENIOR SECURED CONVERTIBLE PROMISSORY NOTE is a duly authorized and validly issued Senior Secured Convertible Promissory Note of CHROMOCELL THERAPEUTICS CORPORATION, a Delaware corporation (the "Company"), designated as its Senior Secured Convertible Promissory Note due on or after March 1, 2024 (this "Note"). This Note is one of a series of convertible notes issued pursuant to the terms of the Purchase Agreement. Capitalized terms used and not otherwise defined herein shall have the meanings set forth for such terms in the Purchase Agreement.

FOR VALUE RECEIVED, the Company promises to pay to [*], or its registered assigns (the "Holder"), or shall have paid pursuant to the terms hereunder, the principal sum of US$[*] and any other sums due hereunder anytime on or after March 1, 2024 (the "Maturity Date"), or such earlier date as this Note is required or permitted to be repaid as provided hereunder, and to pay interest to the Holder on the aggregate unconverted and then outstanding principal amount of this Note in accordance with the provisions hereof. This Note is subject to the following additional provisions.

NOW THEREFORE, the Holder hereby agrees as follows:

Section 1. Definitions. Terms not otherwise defined herein shall have the meanings given to them in the Purchase Agreement. For the purposes hereof, in addition to the terms defined in the Purchase Agreement and elsewhere in this Note, the following terms shall have the following meanings:

"Bankruptcy Event" means any of the following events: (a) the Company commences a case or other proceeding under any bankruptcy, reorganization, arrangement, adjustment of debt, relief of debtors, dissolution, insolvency or liquidation or similar law of any jurisdiction relating to the Company or any Significant Subsidiary thereof, (b) there is commenced against the Company or any Significant Subsidiary thereof any such case or proceeding that is not dismissed within sixty (60) days after commencement, (c) the Company or any Significant Subsidiary thereof is adjudicated insolvent or bankrupt or any order of relief or other order approving any such case or proceeding is entered, (d) the Company or any Significant Subsidiary thereof suffers any appointment of any custodian or the like for it or any substantial part of its property that is not discharged or stayed within sixty (60) calendar days after such appointment, (e) the Company or any Significant Subsidiary thereof makes a general assignment for the benefit of creditors, (f) the Company or any Significant Subsidiary thereof calls a meeting of its creditors with a view to arranging a composition, adjustment or restructuring of its debts, (g) the Company or any Significant Subsidiary thereof admits in writing that it is generally unable to pay its debts as they become due, (h) the Company or any Significant Subsidiary thereof, by any act or failure to act, expressly indicates its consent to, approval of or acquiescence in any of the foregoing or takes any corporate or other action for the purpose of effecting any of the foregoing.

"Change of Control Transaction" means the occurrence after the date hereof of any of the following: (a) an acquisition after the date hereof by an individual or legal entity or "group" (as described in Rule 13d-5(b)(1) promulgated under the Exchange Act) of effective control (whether through legal or beneficial ownership of capital stock of the Company, by contract or otherwise) of in excess of fifty percent (50%) of the voting securities of the Company (other than by means of conversion or exercise of the Note), (b) the Company merges into or consolidates with any other Person, or any Person merges into or consolidates with the Company and, after giving effect to such transaction, the stockholders of the Company immediately prior to such transaction own less than fifty-one percent (51%) of the aggregate voting power of the Company or the successor entity of such transaction, (c) the Company sells or transfers all or substantially all of its assets to another Person and the stockholders of the Company immediately prior to such transaction own less than fifty-one percent (51%) of the aggregate voting power of the acquiring entity immediately after the transaction, or (d) the execution by the Company of an agreement to which the Company is a party or by which it is bound, providing for any of the events set forth in clauses (a) through (c) above.

"Conversion Shares" means, collectively, the shares of Common Stock issuable upon Conversion of this Note in accordance with the terms hereof.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"Financial Investor" means any investor or series of Affiliated investors whose primary business is the investment of capital for financial gain (including venture capital funds, private equity funds, pension funds and sovereign wealth funds).

"Fundamental Transaction" means (A) that the Company shall, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, (i) consolidate or merge with or into (whether or not the Company is the surviving corporation) another Subject Entity, or (ii) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of the Company or any of its "significant subsidiaries" (as defined in Rule 1-02 of Regulation S-X) to one or more Subject Entities, or (iii) make, or allow one or more Subject Entities to make, or allow the Company to be subject to or have its shares of Common Stock be subject to or party to one or more Subject Entities making, a purchase, tender or exchange offer that is accepted by the holders of at least either (x) 50% of the outstanding shares of Common Stock, (y) 50% of the outstanding shares of Common Stock calculated as if any shares of Common Stock held by all Subject Entities making or party to, or Affiliated with any Subject Entities making or party to, such purchase, tender or exchange offer were not outstanding; or (z) such number of shares of Common Stock such that all Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such purchase, tender or exchange offer, become collectively the beneficial owners (as defined in Rule 13d-3 under the Exchange Act) of at least 50% of the outstanding shares of Common Stock, or (iv) consummate a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin- off or scheme of arrangement) with one or more Subject Entities whereby all such Subject Entities, individually or in the aggregate, acquire, either (x) at least 50% of the outstanding shares of Common Stock, (y) at least 50% of the outstanding shares of Common Stock calculated as if any shares of Common Stock held by all the Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such stock purchase agreement or other business combination were not outstanding; or (z) such number of shares of Common Stock such that the Subject Entities become collectively the beneficial owners (as defined in Rule 13d-3 under the Exchange Act) of at least 50% of the outstanding shares of Common Stock, or (v) reorganize, recapitalize or reclassify its shares of Common Stock, (B) that the Company shall, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, allow any Subject Entity individually or the Subject Entities in the aggregate to be or become the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, whether through, purchase, assignment, conveyance, tender, tender offer, exchange, reduction in outstanding shares of Common Stock, merger, consolidation, business combination, reorganization, recapitalization, spin-off, scheme of arrangement, reorganization, recapitalization or reclassification or otherwise in any manner whatsoever, of either (x) at least 50% of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock, (y) at least 50% of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock not held by all such Subject Entities as of the date of this Note calculated as if any shares of Common Stock held by all such Subject Entities were not outstanding, or (z) a percentage of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock or other equity securities of the Company sufficient to allow such Subject Entities to effect a statutory short form merger or other transaction requiring other shareholders of the Company to surrender their shares of Common Stock without approval of the shareholders of the Company, (C) directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, the issuance of or the entering into any other instrument or transaction structured in a manner to circumvent, or that circumvents, the intent of this definition in which case this definition shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this definition to the extent necessary to correct this definition or any portion of this definition which may be defective or inconsistent with the intended treatment of such instrument or transaction, or (D) a Fundamental Transaction has been announced but has not yet closed.

"Obligations" means all amounts, indebtedness, obligations, liabilities, covenants and duties of every type and description owing by any Company Party from time to time to the Holder or its Purchaser Parties under this Note or any other Transaction Document, whether direct or indirect, joint or several, absolute or contingent, due or to become due, liquidated or unliquidated, secured or unsecured, now existing or hereafter arising and however acquired (regardless of whether acquired by assignment), whether or not evidenced by any note or other instrument or for the payment of money, including, without duplication, (i) the principal amount of the Note owing by the Company or any other Company Party, (ii) all other amounts, fees, interest (including any increase upon an Event of Default), liquidated damages, commissions, charges, costs, expenses, attorneys' fees and disbursements, indemnities (including Losses and other amounts for which any Company Party is required to indemnify the Holder or any of its Purchaser Parties under the Purchase Agreement), reimbursement of amounts paid and other sums chargeable to any Company Party under any Transaction Document or otherwise arising under any Transaction Document and (iii) all interest on any item otherwise qualifying as "Obligation" hereunder, whether or not accruing after the filing of any petition in bankruptcy, or the commencement of any insolvency, reorganization or similar proceeding, whether or not a claim for post-filing or post-petition interest is allowed in such proceeding.

"Permitted Debt" means all of the following: (i) Indebtedness owing to the Company under any Transaction Document; (ii) unsecured intercompany Indebtedness between the Company and its Subsidiaries in the ordinary course of business, which is subject to a subordination agreement in such form as approved by the Holder; (iii) unsecured Indebtedness of the Company or any of its Subsidiaries to trade creditors (including overdue amounts on invoices) incurred on customary terms in the ordinary course of business; (iv) Indebtedness existing on the Closing Date and as disclosed on the Disclosure Schedule; **provided,** that such Indebtedness has not been materially amended since the date of hereof; (v) Indebtedness of the Company or any Subsidiary under Capital Leases for equipment or Indebtedness of the Company or any Subsidiary secured by a Purchase Money Lien, which Indebtedness shall not at any time exceed $4,500,000 in the aggregate for the Company and its Subsidiaries; (vi) Indebtedness of the Company or any of its Subsidiaries under leases for facilities that are treated as Capital Leases under GAAP; (vii) unsecured Indebtedness following the date hereof which is subject to a subordination agreement in such form as approved by the Holder; and (ix) any other Indebtedness incurred with the prior written consent of the Holder.

"Permitted Liens" means all of the following:

(a) Liens securing the payment of taxes, assessments or other charges or levies imposed by any Governmental Authority which are either not yet overdue or the validity of which are being contested in good faith by appropriate proceedings diligently pursued and with respect to which adequate reserves have been set aside on its books;

(b) non-consensual statutory Liens (other than Liens securing the payment of taxes) arising in the ordinary course of business to the extent (A) such Liens secure Indebtedness that is not overdue or (B) such Liens secure Indebtedness relating to claims or liabilities that are fully insured and being defended at the sole cost and expense and at the sole risk of the insurer or being contested in good faith by appropriate proceedings diligently pursued, in each case prior to the commencement of foreclosure or other similar proceedings and with respect to which adequate reserves have been set aside on its books;

(c) zoning, building and land use restrictions, easements, servitudes, encumbrances, licenses, covenants and other restrictions affecting the use of real property or minor defects or irregularities in title thereto that do not interfere in any material respect with the use of such real property or the ordinary conduct of the business of the Company and its Subsidiaries as presently conducted thereon or materially impair the value of the real property that may be subject thereto;

(d) pledges and deposits of cash in the ordinary course of business in connection with workers' compensation, unemployment insurance and other types of social security benefits consistent with current practices as in effect on the date hereof;

(e) undetermined or inchoate Liens and charges arising or potentially arising under statutory provisions which have not at the time been filed or registered in accordance with applicable law or of which written notice has not been duly given in accordance with applicable Regulation or which although filed or registered, relate to obligations not due or delinquent, including without limitation of statutory Liens incurred, or pledges or deposits made, under worker's compensation, employment insurance and other social security legislation;

(f) Liens or deposits to secure the performance of bids, tenders, expropriation proceedings, trade contracts, leases, statutory obligations, surety and performance bonds and other obligations of a like nature (other than for borrowed money), and deposits to secure equipment contracts, in each case incurred in the ordinary course of business;

(g) appeal bonds;

(h) landlord Liens for rent not yet due and payable;

(i) Liens arising from operating leases and the precautionary UCC financing statement filings in respect thereof;

(j) judgments and other similar Liens arising in connection with court proceedings that do not constitute an Event of Default; **provided**, that, (A) such Liens are being contested in good faith and by appropriate proceedings diligently pursued, (B) adequate reserves or other appropriate provision, if any, as are required by GAAP have been made therefor and (C) a stay of enforcement of any such Liens is in effect;

(k) customary rights of set-off or combination of accounts in favor of a financial institution with respect to deposits maintained by it;

(l) Liens arising under the Transaction Documents and Liens which have been set forth in any Disclosure Schedule referenced in the Purchase Agreement; and

(m) Liens disclosed in writing to the Holder and approved by the Holder.

"Purchase Agreement" means the Securities Purchase Agreement, dated as of September 1, 2023, between the Company, the Holder and the other investors signatory thereto.

"Significant Subsidiary" has the meaning given to it in Rule 1-02(w) of Regulation S-X.

"Strategic Investor" means any Person who is not a Financial Investor or series of Affiliated Persons who are not Financial Investors.

"Subject Entity" means any Person, Persons or "group" (as described in Rule 13d- 5(b)(1) promulgated under the Exchange Act) or any Affiliate or associate of any such Person, Persons or "group".

Section 2. Interest.

a) Payment of Interest. Subject to any other terms of this Note, the Company shall pay interest to the Holder on the aggregate unconverted and then outstanding principal amount of this Note at the rate of eight percent (8%) per annum payable with the repayment of the outstanding principal amount on the Maturity Date. Payments will be credited first to accrued interest due and payable, with any remainder applied to principal (subject to Section 2(c) herein). All accrued and unpaid interest shall also be payable upon the final repayment of this Note.

b) Interest Calculations. Interest shall be calculated on the basis of a 360-day year, consisting of twelve 30 calendar day periods, and shall accrue daily commencing on the Issue Date until payment in full of the outstanding principal amount, together with all accrued and unpaid interest, liquidated damages and other amounts which may become due hereunder, has been made. Interest shall cease to accrue with respect to any principal amount converted, provided that, the Company actually delivers the Conversion Shares within the time period required by Section 4(c)(ii) herein. Interest hereunder will be paid to the Person in whose name this Note is registered on the records of the Company regarding registration and transfers of this Note (the "Note Register"). The Company shall update the Note Register to reflect permitted transferees and assignees of the Note.

c) Prepayment. Except as otherwise set forth in this Note, the Company may not prepay any portion of the principal amount of this Note or accrued interest hereunder, without the prior written consent of the Holder.

Section 3. Registration of Transfers and Exchanges.

a) Different Denominations. This Note is exchangeable for an equal aggregate principal amount of Notes of different authorized denominations, as requested by the Holder surrendering the same. No service charge will be payable for such registration of transfer or exchange.

b) Investment Representations. This Note may be transferred or exchanged only in compliance with investment representations of the Holder set forth in the Purchase Agreement and all other terms of this Note, and applicable federal and state securities laws and regulations.

c) Reliance on Note Register. Prior to due presentment for transfer to the Company of this Note, the Company and any agent of the Company may treat the Person in whose name this Note is duly registered on the Note Register as the owner hereof for the purpose of receiving payment as herein provided and for all other purposes, whether or not this Note is overdue, and neither the Company nor any such agent shall be affected by notice to the contrary.

Section 4. Conversion.

a) Conversion. In the event that the Company consummates an Initial Public Offering, then the total outstanding principal amount of this Note and any unpaid accrued interest thereon shall automatically convert into Conversion Shares, without any further action by the Holder (a "Conversion"). The applicable date of conversion, with respect to a Conversion (the " Conversion Date") shall be the date of the closing of the IPO. The Company shall deliver to the Holder written notice of the Conversion, including the material terms thereof and a calculation of the Conversion Price with supporting detail, at least ten (10) days prior to the proposed Conversion Date. Upon a Conversion hereunder, the Holder shall surrender this Note as promptly as is reasonably practicable after the Conversion Date without delaying the Company's obligation to deliver the shares on the Share Delivery Date.

b) Conversion Price. The conversion price applicable to a Conversion shall be equal to 80% of the Effective Price Per Share of the Initial Public Offering, subject to any adjustments provided in this Note (the "Conversion Price").

c) Mechanics of Conversion.

i. Conversion Shares Issuable upon Conversion of Principal Amount and Interest. The number of Conversion Shares issuable upon a Conversion hereunder shall be determined by the quotient obtained by dividing (x) the outstanding principal amount of this Note and accrued and unpaid interest to be converted by (y) the Conversion Price.

i i . Delivery of Conversion Shares Upon Conversion. Not later than five (5) Business Days after the Conversion Date (the "Share Delivery Date"), the Company shall deliver, or cause to be delivered, to the Holder a notice of issuance for the number of Conversion Shares being acquired upon the Conversion of this Note, which shall include the restrictive legends described below, unless it is otherwise determined in good faith that such restrictive legends are not required.

iii. Reservation of Shares Issuable Upon Conversion. The Company covenants that it will at all times reserve and keep available out of its authorized and unissued shares of Common Stock for the sole purpose of issuance upon Conversion of this Note and payment of interest on this Note, each as herein provided, free from preemptive rights or any other actual contingent purchase rights of Persons other than the Holder, not less than such aggregate number of shares of the Common Stock as shall (subject to the terms and conditions set forth in the Purchase Agreement) be issuable (taking into account the adjustments and restrictions of Section 5) upon the Conversion of the then outstanding principal amount of this Note and payment of interest hereunder. The Company covenants that all shares of Common Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid and nonassessable.

iv. Fractional Shares. No fractional shares or scrip representing fractional shares shall be issued upon the Conversion of this Note. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such Conversion, the Company shall at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Conversion Price or round up to the next whole share.

v. Transfer Taxes and Expenses. The issuance of Conversion Shares on Conversion of this Note shall be made without charge to the Holder hereof for any documentary stamp or similar taxes that may be payable in respect of the issue or delivery of such Conversion Shares, provided that the Company shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any such Conversion Shares upon Conversion in a name other than that of the Holder of this Note so converted and the Company shall not be required to issue or deliver such Conversion Shares unless or until the Person or Persons requesting the issuance thereof shall have paid to the Company the amount of such tax or shall have established to the satisfaction of the Company that such tax has been paid.

Section 5. Certain Adjustments.

a) Stock Dividends and Stock Splits. If the Company, at any time while this Note is outstanding: (A) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any Common Stock Equivalent (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Note), (B) subdivides outstanding shares of Common Stock into a larger number of shares, (C) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares or (D) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then, in each such case, the Company shall make an applicable adjustment to the Conversion Price to equitably increase or reduce the number of shares issuable upon the Conversion of this Note, as determined by its Board of Directors. Any adjustment made pursuant to this Section 5(a) shall become effective (x) immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution, (y) immediately after the effective date in the case of a subdivision, combination or re-classification, or (z) as determined in the good faith reasonable judgment of the Board of Directors in any other case taking into account any recommendation including in any opinion received in connection with an adjustment.

b) Common Stock and Common Stock Equivalents. If the Company or any Subsidiary thereof, as applicable, at any time while this Note is outstanding, shall sell or grant any option to purchase, or sell or grant any right to reprice, or otherwise dispose of or issue (or announce any offer, sale, grant or any option to purchase or other disposition) any Common Stock or Stock Equivalents, other than in respect of an Exempt Issuance (i) at a price per share less than the Conversion Price then in effect or (ii) that entitles any Person to acquire shares of Common Stock at a price per share less than the Conversion Price then in effect (such lower price, the "Base Share Price" and such issuances collectively, a " Dilutive Issuance") (it being understood and agreed that if the holder of the Common Stock or Common Stock Equivalents so issued shall at any time, whether by operation of purchase price adjustments, reset provisions, floating conversion, exercise or exchange prices or otherwise, or due to warrants, options or rights per share which are issued in connection with such issuance, be entitled to receive Common Stock at an effective price per share that is less than the Conversion Price, such issuance shall be deemed to have occurred for less than the Conversion Price on such date of the Dilutive Issuance at such effective price), then simultaneously with the consummation of each Dilutive Issuance the Conversion Price shall be reduced and only reduced to equal the Base Share Price. Such adjustment shall be made whenever such Common Stock or Stock Equivalents are issued. The Company shall notify the Holder, in writing, no later than the Business Day following the issuance or deemed issuance of any Common Stock or Common Stock Equivalents subject to this Section 5(b), indicating therein the applicable issuance price, or applicable reset price, exchange price, conversion price and other pricing terms (such notice, the "Dilutive Issuance Notice"). For purposes of clarification, whether or not the Company provides a Dilutive Issuance Notice pursuant to this Section 5(b), upon the occurrence of any Dilutive Issuance, the Holder is entitled to receive a number of Conversion Shares based upon the Base Share Price regardless of whether the Holder accurately refers to the Base Share Price in the Notice of Conversion. If the Company enters into a Variable Rate Transaction, despite the prohibition thereon in the Purchase Agreement, the Company shall be deemed to have issued Common Stock or Stock Equivalents at the lowest possible conversion or exercise price at which such Securities may be converted or exercised. This Section shall be of no further force and effect following the full repayment of this Note.

c) Pro Rata Distributions. While this Note is outstanding, the Company shall not declare or make any Restricted Payment (or rights to receive Restricted Payments). In the event that the Note is permissibly repaid at the time of such Restricted Payment, the Holder shall not be entitled to participate in such Restricted Payment. If the Holder and the Company mutually agree, and the Note is not repaid at the time of such Restricted Payment, then the Holder shall be entitled to participate in such Restricted Payment to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Note (without regard to any limitations on exercise hereof, including the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Restricted Payment, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Restricted Payment (provided, that to the extent that the Holder's right to participate in any such Restricted Payment would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Restricted Payment to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Restricted Payment to such extent) and the portion of such Restricted Payment shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Fundamental Transaction. Upon the occurrence of any Fundamental Transaction, the Holder, upon any subsequent conversion of this Note, shall have the right to receive, for each Conversion Share that would have been issuable upon such conversion immediately prior to the occurrence of such Fundamental Transaction (without regard to any limitation in Section 4(b) on the conversion of this Note), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Note is convertible immediately prior to such Fundamental Transaction (without regard to any limitation in Section 4(c) on the conversion of this Note). For purposes of any such conversion, the determination of the Conversion Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one (1) share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Conversion Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the Securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any conversion of this Note following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the Obligations of the Company, in accordance with the provisions of this Section 5(d) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the holder of this Note, deliver to the Holder in exchange for this Note a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Note which is convertible for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon conversion of this Note (without regard to any limitations on the conversion of this Note) prior to such Fundamental Transaction, and with a conversion price which applies the conversion price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such conversion price being for the purpose of protecting the economic value of this Note immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Note and the other Transaction Documents referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the Obligations of the Company with the same effect as if such Successor Entity had been named as the Company herein. For the avoidance of doubt, in the event of the occurrence of a Fundamental Transaction, the Successor Entity, in addition to any of its other obligations set for in this Section 5, shall agree in writing that the Holder is entitled to the anti-dilution rights set forth in this Section 5 for the time period set forth in the Note, or if longer two (2) years after the closing of the Fundamental Transaction.

e) Calculations. All calculations under this Section 5 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 5, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding any treasury shares of the Company) issued and outstanding.

f) Notice to the Holder. Whenever the Conversion Price is adjusted pursuant to any provision of this Section 5, the Company shall deliver to each Holder within two (2) Business Days a notice setting forth the Conversion Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

g) Variable Rate Transaction . So long as this Note remains outstanding, the Company shall not directly or indirectly (i)(A) consummate any exchange of any Indebtedness and/or securities of the Company for any other securities and/or Indebtedness of the Company, (B) cooperate with any Person to effect any exchange of securities and/or Indebtedness of the Company in connection with a proposed sale of such securities from an existing holder of such securities to any other unrelated Person), and/or (C) reduce and/or otherwise change the exercise price, conversion price and/or exchange price of any Stock Equivalent of the Company and/or amend any non-convertible Indebtedness of the Company to make it convertible into securities of the Company, (ii) issue or sell any of its securities either (A) at a conversion, exercise or exchange rate or price that is based upon and/or varies with the trading prices of, or quotations for, Common Stock, and/or (B) with a conversion, exercise or exchange rate and/or price that is subject to being reset on one or more occasions either (1) at some future date after the initial issuance of such securities or (2) upon the occurrence of specified or contingent events directly or indirectly related to the business of the Company or the market for the Common Stock, and/or (iii) enter into any agreement (including an "equity line of credit" or an "at-the-market offering") whereby the Company may sell securities at a future determined price. Any transaction contemplated in this Section 5(h), shall be referred to as a "Variable Rate Transaction". The Holder shall be entitled to obtain injunctive relief against the Company to preclude any Variable Rate Transaction (without the need for the posting of any bond or similar item, which the Company hereby expressly and irrevocably waives the requirement for), which remedy shall be in addition to any right of the Holder to collect damages. A " Variable Rate Transaction" shall also mean, collectively, an "Equity Line of Credit" or similar agreement, or a Variable Priced Equity Linked Instrument. For purposes hereof, "Equity Line of Credit" means any transaction involving a written agreement between the Company and an investor or underwriter whereby the Company has the right to "put" its Securities to the investor or underwriter over an agreed period of time and at future determined price or price formula (other than customary "preemptive" or "participation" rights or "weighted average" or "full-ratchet" anti-dilution provisions or in connection with fixed-price rights offerings and similar transactions that are not Variable Priced Equity Linked Instruments), and " Variable Priced Equity Linked Instruments " means: (A) any Stock Equivalent convertible into, exercisable or exchangeable for, or carry the right to receive additional shares of Common Stock either (1) at any conversion, exercise or exchange rate or other price that is based upon and/or varies with the trading prices of or quotations for Common Stock at any time after the initial issuance of such Stock Equivalent, or (2) with a conversion, exercise or exchange price that is subject to being reset on more than one occasion at some future date at any time after the initial issuance of such debt or equity security due to a change in the market price of the Common Stock since date of initial issuance (other than customary "preemptive" or "participation" rights or "weighted average" or "full-ratchet" anti-dilution provisions or in connection with fixed-price rights offerings and similar transactions), and (B) any amortizing convertible Stock Equivalent which amortizes prior to its maturity date, where the Company is required or has the option to (or any investor in such transaction has the option to require the Company to) make such amortization payments in shares of Common Stock which are valued at a price that is based upon and/or varies with the trading prices of or quotations for Common Stock at any time after the initial issuance of such Stock Equivalent (whether or not such payments in Common Stock are subject to certain equity conditions). Notwithstanding the foregoing, the Company may engage in an "at-the-market" transaction on customary terms.

Section 6. Events of Default.

a) "Event of Default" means, wherever used herein, any of the following events (whatever the reason for such event and whether such event shall be voluntary or involuntary or effected by operation of law or pursuant to any judgment, decree or order of any court, or any order, rule or regulation of any administrative or governmental body):

i. any default in the payment of (A) the principal amount of this Note or (B) interest, liquidated damages and other amounts owing to the Holder on this Note, as and when the same shall become due and payable (upon demand for payment by the Holder or by acceleration or otherwise) which default, solely in the case of an interest payment or other default under clause (B) above, is not cured within three (3) Business Days;

ii. the Company shall fail to observe or perform any other covenant or agreement contained in this Note or in any other Transaction Document, which failure is not cured, if possible to cure, within five (5) Business Days after notice of such failure sent by the Holder to the Company;

iii. any representation or warranty made in this Note or the Purchase Agreement, any written statement pursuant hereto or thereto or any other report, financial statement or certificate made or delivered to the Holder shall be untrue or incorrect in any material respect as of the date when made or deemed made;

iv. the Company or any Significant Subsidiary (as such term is defined in Rule 1-02(w) of Regulation S-X) shall be subject to a Bankruptcy Event; or

v. the Company shall fail to maintain a sufficient number of shares of Common Stock reserved for issuance upon the Conversion of this Note and such failure is not cured within thirty (30) days after written notice from the Holder.

b) Remedies Upon Event of Default. Subject to any other limitations regarding percentage of ownership of Common Stock contained herein, if any Event of Default occurs, then the outstanding principal amount of this Note, plus accrued but unpaid interest (including all interest, whether or not accruing after the filing of any petition in bankruptcy, or the commencement of any insolvency, reorganization or similar proceeding, all of which shall continue to accrue whether or not a claim for post-filing or post-petition interest is allowed in such proceeding), fees, liquidated damages and any other amounts owing by any Company Party in respect thereof or under any Transaction Document through the date of acceleration (the "Mandatory Default Amount"), shall become, at the Holder's election in its sole discretion, in whole or in part, immediately due and payable, in cash. Immediately on and after the occurrence of any Event of Default, without need for notice or demand all of which are waived, interest on this Note shall accrue and be owed daily at an increased interest rate equal to the greater of fifteen percent (15.0%) per annum or the maximum rate permitted under applicable law (the "Trigger Rate"). Upon the payment in full of the Mandatory Default Amount and any amount as a result of the Trigger Rate, in cash or in shares of Common Stock, the Holder shall promptly surrender this Note to or as directed by the Company. In connection with such acceleration described herein, the Holder need not provide, and the Company hereby waives, any presentment, demand, protest or other notice of any kind (other than the Holder's election to declare such acceleration), and the Holder may immediately and without expiration of any grace period enforce any and all of its rights and remedies hereunder and all other remedies available to it under applicable law. Such acceleration may be rescinded and annulled by Holder at any time prior to payment hereunder and the Holder shall have all rights as a holder of the Note until such time, if any, as the Holder receives full payment pursuant to this Section 6(b). No such rescission or annulment shall affect any subsequent Event of Default or impair any right consequent thereon. The Company shall provide all information and documentation to the Holder that is requested by the Holder to enable the Holder to confirm the Company's compliance with the terms and conditions of this Note and the other Transaction Documents and to enforce its rights hereunder and thereunder.

Section 7. Negative Covenants. So long as any portion of this Note remains outstanding, the Company shall not, without express written consent of the Holders holding a majority of the outstanding principal amount of the Notes, which must include the Lead Investor, do any of the following:

a) other than Permitted Debt, enter into, create, incur, assume, guaranty, or suffer to exist any Indebtedness or repay the principal amount of, redeem, purchase or otherwise acquire or offer to repay the principal amount of, redeem, repurchase or otherwise acquire any Indebtedness whether or not extant on the Issue Date (other than the Notes on a pro rata basis based on the principal amounts outstanding);

b) other than Permitted Liens, create, permit, incur or suffer to exist any Lien on any assets other than (i) the Liens securing the Obligations created pursuant to the Transaction Documents or (ii) to a Strategic Investor;

c) issue shares of the Company's preferred stock, except to a Strategic Investor;

d) except in the ordinary course of its business, sell or otherwise dispose of any of its assets:

e) amend its charter documents, including its certificate of incorporation and bylaws, in any manner that materially and adversely affects any rights of the Holder;

f) make, approve, or offer to make any Restricted Payment any shares of Capital Stock other than with respect to the Conversion Shares, and then only as permitted or required under the Transaction Documents;

g) consummate a Fundamental Transaction or Change of Control Transaction;

h) accept merchant cash advances or similar financing instruments;

i) enter into any agreement with respect to any of the foregoing;

j) fail to use the proceeds of the Note as provided for in the Transaction Documents, including being engaged in operations involving the financing of any investments or activities in, or any payments to, any Sanctioned Person;

k) take or allow any action which would cause an adjustment of the par value of the Conversion Price to be less than the par value in effect at such time;

l) directly or indirectly (including through agents, contractors, trustees, representatives or advisors) (a) be in violation of any Sanctions Law or engage in, or conspire or attempt to engage in, any transaction evading or avoiding any prohibition in any Sanction Law, (b) be a Sanctioned Person or derive revenues from investments in, or transactions with Sanctioned Persons, (c) have any assets located in Sanctioned Jurisdictions, (d) deal in, or otherwise engage in any transactions relating to, any property or interest in property blocked pursuant to any Regulation administered or enforced by OFAC or (e) fail to comply with any material Regulations or Contractual Obligations applicable to it or fail to obtain or comply with any material Permits;

m) make or suffer to exist any investments using any proceeds from the Holder or any of its Affiliates (including without limitation, loans and advances to, and other investments in, Subsidiaries), or commitments therefor, or to become or remain a partner in any partnership or joint venture, except for: (i) investments in cash and cash equivalents; and (ii) investments in Subsidiaries; or

n) issue any shares of Common Stock to officers directors or employees unless such shares are issued pursuant to a board approved equity incentive plan or otherwise if approved by shareholder of the Company at an annual meeting of shareholders or special meeting of shareholders.

Section 8. Miscellaneous.

a) Notices. Any and all notices or other communications or deliveries to be provided by the Holder or the Company hereunder shall be in writing and delivered as provided in Section 6.4 of the Purchase Agreement.

b) Absolute Obligation. Except as expressly provided herein, no provision of this Note shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of, and accrued interest, as applicable, on this Note at the time, place, and rate, and in the coin or currency, herein prescribed. This Note is a direct debt obligation of the Company.

c) Lost or Mutilated Note. If this Note shall be mutilated, lost, stolen or destroyed, the Company shall execute and deliver, in exchange and substitution for and upon cancellation of a mutilated Note, or in lieu of or in substitution for a lost, stolen or destroyed Note, a new Note for the principal amount of this Note so mutilated, lost, stolen or destroyed, but only upon receipt of evidence of such loss, theft or destruction of such Note, and of the ownership hereof, reasonably satisfactory to the Company.

d) Governing Law; Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Note shall be governed by and construed and enforced in accordance with the internal laws of the State of Delaware, without regard to the principles of conflict of laws thereof. Each party agrees that all legal proceedings concerning the interpretation, enforcement and defense of the transactions contemplated by this Note (whether brought against a party hereto or its respective Affiliates, directors, officers, shareholders, employees or agents) shall be commenced in the state and federal courts sitting in the County of New Castle, State of Delaware (the "Delaware Courts"). Each party hereto hereby irrevocably submits to the exclusive jurisdiction of the Delaware Courts for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of any of this Note, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of such Delaware Courts, or such Delaware Courts are improper or inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Note and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by applicable law. Each party hereto hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Note or the transactions contemplated hereby. If any party shall commence an action or proceeding to enforce any provisions of this Note, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorneys' fees and other costs and expenses incurred in the investigation, preparation and prosecution of such action or proceeding.

e) Waiver. Any waiver by the Company or the Holder of a breach of any provision of this Note shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Note. The failure of the Company or the Holder to insist upon strict adherence to any term of this Note on one or more occasions shall not be considered a waiver or deprive that party of the right thereafter to insist upon strict adherence to that term or any other term of this Note on any other occasion. Any waiver by the Company or the Holder must be in writing.

f) Severability. If any provision of this Note is invalid, illegal or unenforceable, the balance of this Note shall remain in effect, and if any provision is inapplicable to any Person or circumstance, it shall nevertheless remain applicable to all other Persons and circumstances. If it shall be found that any interest or other amount deemed interest due hereunder violates the applicable law governing usury, the applicable rate of interest due hereunder shall automatically be lowered to equal the maximum rate of interest permitted under applicable law. The Company covenants (to the extent that it may lawfully do so) that it shall not at any time insist upon, plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay, extension or usury law or other law which would prohibit or forgive the Company from paying all or any portion of the principal of or interest on this Note as contemplated herein, wherever enacted, now or at any time hereafter in force, or which may affect the covenants or the performance of this Note, and the Company (to the extent it may lawfully do so) hereby expressly waives all benefits or advantage of any such law, and covenants that it will not, by resort to any such law, hinder, delay or impede the execution of any power herein granted to the Holder, but will suffer and permit the execution of every such as though no such law has been enacted.

g) Remedies, Characterizations, Other Obligations, Breaches and Injunctive Relief . The remedies provided in this Note shall be cumulative and in addition to all other remedies available under this Note at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the Holder's right to pursue actual and consequential damages for any failure by the Company to comply with the terms of this Note. The Company covenants to the Holder that there shall be no characterization concerning this instrument other than as expressly provided herein. Amounts set forth or provided for herein with respect to payments, conversion and the like (and the computation thereof) shall be the amounts to be received by the Holder and shall not, except as expressly provided herein, be subject to any other obligation of the Company (or the performance thereof). The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the Holder shall be entitled, in addition to all other available remedies, to an injunction restraining any such breach or any such threatened breach, without the necessity of showing economic loss and without any bond or other security being required. The Company shall provide all information and documentation to the Holder that is requested by the Holder to enable the Holder to confirm the Company's compliance with the terms and conditions of this Note.

h) Next Business Day. Whenever any payment or other obligation hereunder shall be due on a day other than a Business Day, such payment shall be made on the next succeeding Business Day.

i) Headings. The headings contained herein are for convenience only, do not constitute a part of this Note and shall not be deemed to limit or affect any of the provisions hereof.

j) Amendments. This Note may be amended, in writing, by the mutual agreement of the Company and the Holder.

k) Expenses. The Company and the Holder will each bear their own legal and other expenses in connection with the preparation and negotiation of this Note. The Company shall pay all out-of-pocket expenses incurred by the Holder, including the fees, charges and disbursements of counsel for the Holder, in connection with the enforcement or protection of its rights (i) in connection with this Note, including its rights under this Section 8 and (ii) in connection with this Note, including all such out-of-pocket expenses incurred during any workout, restructuring or negotiations in respect of this Note.

l) Most-Favored Nation. So long as this Note is outstanding, upon any issuance by the Company of any new security, with any term that the Holder reasonably believes is more favorable to the holder of such security or with a term in favor of the holder of such security that the Holder reasonably believes was not similarly provided to the Holder in this Note, then (i) the Holder shall notify the Company of such additional or more favorable term within one (1) Business Day of the issuance or amendment (as applicable) of the respective security, and (ii) such term, at Holder's option, shall become a part of this Note (regardless of whether the Company or Holder complied with the notification provision of this Note or the Purchase Agreement). The types of terms contained in another security that may be more favorable to the holder of such security include, but are not limited to, terms addressing conversion or exercise discounts, conversion or exercise lookback periods, and discounts to the Effective Price Per Share of the Initial Public Offering. If Holder elects to have the term become a part of this Note, then the Company shall immediately deliver acknowledgment of such adjustment in form and substance reasonably satisfactory to the Holder (the "Acknowledgment") within one (1) Business Day of Company's receipt of request from Holder, provided that Company's failure to timely provide the Acknowledgement shall not affect the automatic amendments contemplated hereby.

****

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Note to be duly executed by a duly authorized officer as of the date first above indicated.

CHROMOCELL THERAPEUTICS CORPORATION

By: _____
Name:
Title:

Address for Notices: 4400 Route 9 South, Suite 1000, Freehold, NJ 07728

Email for Notices: Frank@chromocell.com

EXHIBIT C

FORM OF SECURITY AGREEMENT

EXHIBIT 10.7

SECURITY AGREEMENT

This Security Agreement (this "**Agreement**"), dated as of September 1, 2023, is entered into by Chromocell Therapeutics Corporation, a Delaware corporation (the "**Company**" or the "**Grantor**") in favor of Balmoral Financial Group LLC, a Delaware limited liability company, for itself and as collateral agent (in such capacity and together with any successor and any replacement named in accordance with the Purchase Agreement, the "**Collateral Agent**") for the holders (the "**Holders**" or the "**Purchasers**").

RECITALS

WHEREAS, the Company has issued to the Holders Notes as of the date hereof and due on March 1, 2024, following their issuance, in the aggregate principal amount of $250,000 (the "**Notes**");

WHEREAS, pursuant to the Securities Purchase Agreement dated as of the date hereof (as amended, modified or supplemented from time to time in accordance with its terms, the "**Purchase Agreement**"), the Holders have severally agreed to extend the loans to the Company evidenced by the Notes; and

WHEREAS, in order to induce the Holders to extend the loans evidenced by the Notes, the Grantor has agreed to grant the Holders a security interest in certain property of the Grantor to secure the prompt payment, performance and discharge in full of all of the Company's obligations under the Notes.

ARTICLE I DEFINED TERMS

1.1 Definitions.

(a) Capitalized terms used but not defined herein shall be used to refer to any item included within the definition of such term under any Note, including if such term is defined in such Note merely by reference to such definition in the Purchase Agreement.

(b) The following terms shall have the following meanings:

"**Applicable IP Office**" means the United States Patent and Trademark Office, the United States Copyright Office or any similar office or agency within or outside the United States.

"**Collateral**" has the meaning specified in **Section 2.1**.

"**Copyrights**" means all rights, title and interests (and all related IP Ancillary Rights) arising under any Regulation in or relating to copyrights and all mask work, database and design rights, whether or not registered or published, all registrations and recordations thereof and all applications in connection therewith, and all rights corresponding to any of the foregoing throughout the world.

"**Excluded Property**" means, collectively, (i) any Permit or similar agreement entered into by the Grantor (A) that prohibits or requires the consent of any Person other than the Company, any other Company Party or any of their respective Affiliates as a condition to the creation by the Grantor of a Lien on any right, title or interest in such Permit or other agreement or any Stock or Stock Equivalent related thereto or (B) to the extent that any Regulation applicable thereto prohibits the creation of a Lien thereon, but only, with respect to the prohibition in (A) and (B), to the extent, and for as long as, such prohibition is not terminated or rendered unenforceable or otherwise deemed ineffective by the UCC or any other Regulation, (ii) fixed or capital assets owned by the Grantor that is subject to a purchase money security interest or a Capital Lease if the documentation pursuant to which such Lien is granted (or in the documentation providing for such Capital Lease) prohibits or requires the consent of any Person (other than the Company, any other Company Party and their respective Affiliates) as a condition to the creation of any other Lien on such equipment and (iii) any "intent to use" Trademark applications for which a statement of use has not been filed (but only until such statement is filed); **provided**, that "**Excluded Property**" shall not include any proceeds, products, substitutions or replacements of Excluded Property (unless such proceeds, products, substitutions or replacements would otherwise constitute Excluded Property), all of which shall therefore be included in Collateral as provided hereunder.

"**Intellectual Property**" means any "Intellectual Property Rights" as defined in the Purchase Agreement, including all applicable Copyrights, Trademarks, Patents, Internet Domain Names, Trade Secrets and IP Licenses.

"**Internet Domain Names**" means all rights, title and interests (and all related IP Ancillary Rights) arising under any Regulation in or relating to Internet domain names.

"**IP Ancillary Rights**" means, with respect to any other Intellectual Property, as applicable, all foreign counterparts to, and all divisionals, reversions, continuations, continuations-in-part, reissues, reexaminations, renewals and extensions of, such Intellectual Property and all income, royalties, proceeds and Liabilities at any time due or payable or asserted under or with respect to any of the foregoing or otherwise with respect to such Intellectual Property, including all rights to sue or recover at law or in equity for any past, present or future infringement, misappropriation, dilution, violation or other impairment thereof, and, in each case, all rights to obtain any other IP Ancillary Right.

"**IP License**" means all agreements, licenses and other documentation (and all related IP Ancillary Rights), whether written or oral, granting any right title and interest in or relating to any Intellectual Property.

"**Liabilities**" means all claims, actions, suits, judgments, damages, losses, liability, obligations, responsibilities, fines, penalties, sanctions, costs, fees, taxes, commissions, charges, disbursements and expenses, in each case of any kind or nature (including interest accrued thereon or as a result thereto and fees, charges and disbursements of financial, legal and other advisors and consultants), whether joint or several, whether or not indirect, contingent, consequential, actual, punitive, treble or otherwise.

"**Patents**" means all rights, title and interests (and all related IP Ancillary Rights) arising under any Regulation in or relating to any and all patents and patent applications and all inventions and improvements described and claimed therein, and all rights corresponding to any of the foregoing throughout the world.

"**Pledged Certificated Stock**" means all certificated securities and any other Stock or Stock Equivalent of any Person evidenced by a certificate, instrument or other similar documentation (as defined in the UCC), in each case owned by the Grantor, and any distribution of property made on, in respect of or in exchange for the foregoing from time to time, including all Stock and Stock Equivalents set forth on the Disclosure Certificate. "**Pledged Certificated Stock**" excludes any Excluded Property.

"**Pledged Collateral**" means, collectively, the Pledged Stock and the Pledged Debt Instruments.

"**Pledged Debt Instruments**" means all right, title and interest of the Grantor in instruments evidencing any Indebtedness owed to the Grantor or other obligations, and any distribution of property made on, in respect of or in exchange for the foregoing from time to time, including all Indebtedness set forth on the Disclosure Certificate, issued by the obligors named therein.

"**Pledged Investment Property**" means any investment property of the Grantor, and any distribution of property made on, in respect of or in exchange for the foregoing from time to time, other than any Pledged Collateral.

"**Pledged Stock**" means all Pledged Certificated Stock and all Pledged Uncertificated Stock.

"**Pledged Uncertificated Stock**" means any Stock or Stock Equivalent of any Person that is not Pledged Certificated Stock, including all right, title and interest of the Grantor as a limited or general partner in any partnership not constituting Pledged Certificated Stock or as a member of any limited liability company, all right, title and interest of the Grantor in, to and under any constituent documentation of any partnership or limited liability company to which it is a party, and any distribution of property made on, in respect of or in exchange for the foregoing from time to time, including in each case those interests set forth on the Disclosure Certificate, to the extent such interests are not certificated. "**Pledged Uncertificated Stock**" excludes any Excluded Property.

"**Purchaser**" has the meaning specified in the preamble hereto.

"**Purchase Agreement**" has the meaning specified in the preamble hereto.

"**Software**" means (a) all computer programs, including source code and object code versions, (b) all data, databases and compilations of data, whether machine readable or otherwise, and (c) all documentation, training materials and configurations related to any of the foregoing.

"**Stock**" means all shares of capital stock (whether denominated as common stock or preferred stock), equity interests, beneficial, partnership or membership interests, joint venture interests, participations or other ownership or profit interests in or equivalents (regardless of how designated) of or in a Person (other than an individual), whether voting or non-voting.

"**Stock Equivalents**" means all securities convertible into or exchangeable for Stock or any other Stock Equivalent and all warrants, options or other rights to purchase, subscribe for or otherwise acquire any Stock or any other Stock Equivalent, whether or not presently convertible, exchangeable or exercisable.

"**Trademarks**" means all rights, title and interests (and all related IP Ancillary Rights) arising under any Regulation in or relating to trademarks, trade names, corporate names, company names, business names, fictitious business names, trade styles, service marks, logos and other source or business identifiers and, in each case, all goodwill associated therewith, including all registrations and recordations thereof and all applications in connection therewith, all registrations and applications for registration and recording applications filed in connection therewith, including registrations and registration applications in the Applicable IP Office, all common law trademarks and the goodwill of the business symbolized by the foregoing, all licenses of the foregoing, whether as licensee or licensor, and all rights corresponding to any of the foregoing throughout the world.

"**Trade Secrets**" means all right, title and interest (and all related IP Ancillary Rights) arising under any Regulation in or relating to trade secrets, including all rights corresponding to any of the foregoing throughout the world.

"**UCC**" means the Uniform Commercial Code as from time to time in effect in the State of Nevada; **provided**, **however**, that, in the event that, by reason of mandatory provisions of any applicable Regulation, any of the attachment, perfection or priority of any other Purchaser Party's security interest in any Collateral is governed by the Uniform Commercial Code or comparable Regulation of a jurisdiction other than the State of Nevada, "**UCC**" shall mean the Uniform Commercial Code or comparable Regulation as in effect in such other jurisdiction for purposes of the provisions hereof relating to such attachment, perfection or priority and for purposes of the definitions related to or otherwise used in such provisions.

"**Vehicles**" means all vehicles covered by a certificate of title law of any state.

(c) The following terms have the meanings given to them in the UCC and terms used herein without definition that are defined in the UCC have the meanings given to them in the UCC (such meanings to be equally applicable to both the singular and plural forms of the terms defined), including the following: "account," "account debtor," "as-extracted collateral," "certificated security," "chattel paper," "commercial tort claim," "commodity contract," "deposit account," "documents," "electronic chattel paper," "equipment," "farm products," "fixture," "general intangible," "goods," "health-care-insurance receivable," "instruments," "inventory," "investment property," "letter-of-credit right," "payment intangible," "proceeds," "record," "securities account," "security," "supporting obligation" and "tangible chattel paper."

1.2 Certain Other Terms.

(a) The meanings given to terms defined herein shall be equally applicable to both the singular and plural forms of such terms. The terms "**herein**," "**hereof**" and similar terms refer to this Agreement as a whole and not to any particular Article, Section or clause in this Agreement. References herein to an Annex, Article, Section or clause refer to the appropriate Annex to, or Article, Section or clause in this Agreement. Where the context requires, provisions relating to any Collateral when used in relation to the Grantor shall refer to the Grantor's Collateral or any relevant part thereof.

(b) **Section 6.15** (**Interpretation**) of the Purchase Agreement is applicable to this Agreement in accordance with its terms, as well as several other provisions of **Article VI (Miscellaneous)** of the Purchase Agreement. In addition, whenever used in this Agreement, "**in the ordinary course of business of a Person**" shall mean "in the ordinary course of business in all material respects consistent with past custom and practice of such Person as in effect on the date hereof with such changes as may be agreed to in writing by the Collateral Agent".

ARTICLE II Grant of Security Interest

2.1 Collateral. For the purposes of this Agreement, all of the personal property, including the following property now owned or at any time hereafter acquired by the Grantor or in which the Grantor now has or at any time in the future may acquire any right, title or interests is collectively referred to as the "**Collateral**":

(a) all accounts, as-extracted collateral, chattel paper, deposit accounts, documents, equipment, general intangibles (including all payment intangibles, Intellectual Property, rights to tax refunds, intercompany notes, rights arising out of leases, licenses, and contracts which are not accounts, computer software, computer programs, information contained on computer disks or tapes, software, literature, reports, catalogs, options, warranties, service contracts, program services, rights to refund, reimbursement, indemnification, and subrogation, goodwill, licenses, royalties, franchises, customer lists, reversions from any retirement plan or arrangement, money, interests in a partnership or limited liability company which do not constitute a security under Article 8 of the Code), instruments (including dividends and rights to payment arising out of partnership agreements and management contracts), inventory, investment property (including any Pledged Collateral and Pledged Investment Property) and any supporting obligations related thereto;

(b) any commercial tort claims set forth on the Disclosure Certificate;

(c) all books, records, ledgers, files, writings, data bases, plans, drawings, and information relating to any of the foregoing, pertaining to the other property described in this **Section 2.1**;

(d) all property of the Grantor held by any Purchaser Party, including all property of every description, in the custody of or in transit to such Purchaser Party for any purpose, including safekeeping, collection or pledge, for the account of the Grantor or as to which the Grantor may have any right or power, including cash;

(e) all other goods, fixtures, improvements (not constituting real property), and other personal property of the Grantor, whether tangible or intangible and wherever located; and

(f) to the extent not otherwise included, all cryptocurrency and other blockchain assets; and

(g) to the extent not otherwise included, all proceeds of the foregoing, including insurance proceeds (including any surrender value therefor, any right to return, or unearned premiums), causes and rights of action, remedies, privileges, settlements, judicial and arbitration judgments and awards, indemnities, Liens, warranties, or guaranties payable from time to time with respect to, or Lien or other security for, any of the foregoing;

provided, that "**Collateral**" shall not include any Excluded Property; and **provided**, **further**, that if and when any property shall cease to be Excluded Property, such property shall be deemed at all times from and after the date hereof to constitute Collateral.

2.2 Grant of Security Interest in Collateral. The Grantor, as collateral security for the prompt and complete payment and performance when due (whether at stated maturity, by acceleration or otherwise) of the Obligations of the Grantor (the "**Secured Obligations**"), hereby mortgages, pledges and hypothecates to the Collateral Agent, as agent for the Purchaser Parties, and grants to the Collateral Agent, as agent for the Purchaser Parties, a Lien on and security interest in, all of its right, title and interest in, to and under the Collateral of the Grantor.

ARTICLE III REPRESENTATIONS AND WARRANTIES

To induce the Holders and the Collateral Agent to enter into the Transaction Documents, the Grantor hereby represents and warrants each of the following to the Collateral Agent, as agent for the other Purchaser Parties:

3.1 Title; No Other Liens. Except for the Lien granted to the Purchaser Parties pursuant to this Agreement and other Permitted Liens under any Transaction Document (including **Section 3.2** hereof and the Permitted Liens as such term is defined in the Notes), the Grantor owns each item of the Collateral free and clear of any and all Liens or claims of others. The Grantor (a) is the record and beneficial owner of the Collateral pledged by it hereunder constituting instruments or certificates and (b) has rights in or the power to transfer each other item of Collateral in which a Lien is granted by it hereunder, free and clear of any other Lien.

3.2 Perfection and Priority. The security interest granted pursuant to this Agreement constitutes a valid and continuing perfected security interest in favor of the Collateral Agent, as agent for the Purchaser Parties, in all Collateral subject, for the following Collateral, to the occurrence of the following: (i) in the case of all Collateral in which a security interest may be perfected by filing a financing statement under the UCC, the completion of such filings set forth on the Disclosure Certificate (which have been delivered to the Collateral Agent in completed and duly authorized form), (ii) [reserved], (iii) in the case of all Copyrights, Trademarks, Patents and other Intellectual Property for which UCC filings are insufficient, all appropriate filings having been made with the United States Copyright Office or the United States Patent and Trademark Office, as applicable, (iv) in the case of letter-of-credit rights that are not supporting obligations of Collateral, the execution of an agreement granting control to the Collateral Agent over such letter-of-credit rights, (v) in the case of electronic chattel paper, the completion of all steps necessary to grant control to the Collateral Agent over such electronic chattel paper and (vi) in the case of Vehicles, the actions required under **Section 4.1(e)**. Such security interest shall be prior to all other Liens on the Collateral except as permitted by any Transaction Document upon (i) in the case of all Pledged Investment Property having instruments or certificates, Pledged Certificated Stock and Pledged Debt Instruments, the delivery thereof to the Collateral Agent of such Pledged Certificated Stock, Pledged Debt Instruments and Pledged Investment Property, in each case properly endorsed for transfer to the Collateral Agent or in blank, (ii) [reserved] and (iii) in the case of all other instruments and tangible chattel paper that are not Pledged Collateral or Pledged Investment Property, the delivery thereof to the Collateral Agent of such instruments and tangible chattel paper. Except as set forth in this **Section 3.2**, all actions by the Grantor necessary or desirable to protect and perfect the Lien granted hereunder on the Collateral have been duly taken.

3.3 Jurisdiction of Organization; Chief Executive Office. The Grantor's jurisdiction of organization, legal name and organizational identification number, if any, and the location of the Grantor's chief executive office or sole place of business, in each case as of the date hereof, is set forth on the Disclosure Certificate and such Disclosure Certificate also lists all jurisdictions of incorporation, legal names and locations of the Grantor's chief executive office or sole place of business for the five years preceding the date hereof.

3.4 Locations of Inventory, Equipment and Books and Records. On the date hereof, the Grantor's inventory and equipment (other than inventory or equipment in transit) and books and records concerning the Collateral are kept at the locations listed on the Disclosure Certificate and such Disclosure Certificate also lists the locations of such inventory, equipment and books and records for the five years preceding the date hereof.

3.5 Pledged Collateral.

(a) The Pledged Stock pledged by the Grantor hereunder (i) is set forth on the Disclosure Certificate and constitutes that percentage of the issued and outstanding equity of all classes of each issuer thereof as set forth on the Disclosure Certificate, (ii) has been duly authorized, validly issued and is fully paid and nonassessable (other than Pledged Stock in limited liability companies and partnerships) and (iii) constitutes the legal, valid and binding obligation of the obligor with respect thereto, enforceable in accordance with its terms.

(b) As of the Closing Date, all Pledged Collateral (other than Pledged Uncertificated Stock) and all Pledged Investment Property consisting of instruments and certificates has been delivered to the Collateral Agent in accordance with **Section 4.3(a)**.

(c) Upon the occurrence and during the continuance of an Event of Default, the Collateral Agent shall be entitled to exercise all of the rights of the Grantor granting the security interest in any Pledged Stock, and a transferee or assignee of such Pledged Stock shall become a holder of such Pledged Stock to the same extent as the Grantor and be entitled to participate in the management of the issuer of such Pledged Stock and, upon the transfer of the entire interest of the Grantor, the Grantor shall, by operation of law, cease to be a holder of such Pledged Stock.

3.6 Instruments and Tangible Chattel Paper Formerly Accounts. No amount payable to the Grantor under or in connection with any account is evidenced by any instrument or tangible chattel paper that has not been delivered to the Collateral Agent, properly endorsed for transfer, to the extent delivery is required by **Section 4.6(a)**.

3.7 Intellectual Property. (a) The Disclosure Certificate sets forth a true and complete list of the following Intellectual Property the Grantor owns, licenses or otherwise has the right to use: (i) Intellectual Property that is registered or subject to applications for registration, (ii) Internet Domain Names and (iii) Intellectual Property and Software, separately identifying that owned and licensed to the Grantor and including for each of the foregoing items (1) the owner, (2) the title, (3) the jurisdiction in which such item has been registered or otherwise arises or in which an application for registration has been filed, (4) as applicable, the registration or application number and registration or application date and (5) any IP Licenses or other rights (including franchises) granted by the Grantor with respect thereto.

(b) On the Closing Date, all Intellectual Property owned by the Grantor is valid, in full force and effect, subsisting, unexpired and enforceable, and no Intellectual Property has been abandoned. No breach or default of any material IP License shall be caused by any of the following, and none of the following shall limit or impair the ownership, use, validity or enforceability of, or any rights of the Grantor in, any Intellectual Property: (i) the consummation of the transactions contemplated by any Transaction Document or (ii) any holding, decision, judgment or order rendered by any Governmental Authority. There are no pending (or, to the knowledge of the Grantor, threatened) actions, investigations, suits, proceedings, audits, claims, demands, orders or disputes challenging the ownership, use, validity, enforceability of, or the Grantor's rights in, any Intellectual Property of the Grantor. To the Grantor's knowledge, no Person has been or is infringing, misappropriating, diluting, violating or otherwise impairing any Intellectual Property of the Grantor. The Grantor, and to the Grantor's knowledge each other party thereto, is not in material breach or default of any material IP License.

3.8 Commercial Tort Claims. The only commercial tort claims of the Grantor existing on the date hereof (regardless of whether the amount, defendant or other material facts can be determined and regardless of whether such commercial tort claim has been asserted, threatened or has otherwise been made known to the obligee thereof or whether litigation has been commenced for such claims) are those listed on the Disclosure Certificate.

3.9 Specific Collateral. None of the Collateral is or is proceeds or products of farm products, as-extracted collateral, health-care-insurance receivables or timber to be cut.

3.10 Enforcement. No Permit, notice to or filing with any Governmental Authority or any other Person or any consent from any Person is required for the exercise by the Collateral Agent of its rights (including voting rights) provided for in this Agreement or the enforcement of remedies in respect of the Collateral pursuant to this Agreement, including the transfer of any Collateral, except as may be required in connection with the disposition of any portion of the Pledged Collateral by laws affecting the offering and sale of securities generally or any approvals that may be required to be obtained from any bailees or landlords to collect the Collateral.

3.11 Representations and Warranties of the Purchase Agreement. The representations and warranties as to the Grantor and its Subsidiaries made by the Company in **Section 3** (**Representations and Warranties**) of the Purchase Agreement are true and correct.

ARTICLE IV COVENANTS

The Grantor agrees with the Collateral Agent and the other Purchaser Parties to the following, as long as any Obligation remains outstanding and, in each case, unless the Collateral Agent and the Required Purchasers otherwise consent in writing:

4.1 Maintenance of Perfected Security Interest; Further Documentation and Consents.

(a) The Grantor shall (i) not use or permit any Collateral to be used unlawfully or in violation of any provision of any Transaction Document, any Regulation or any policy of insurance covering the Collateral and (ii) not enter into any agreement, obligation or undertaking restricting the right or ability of the Grantor or the Collateral Agent to enter into an Asset Sale, if such restriction would have a Material Adverse Effect.

(b) The Grantor shall maintain the security interest created by this Agreement as a perfected security interest having at least the priority described in **Section 3.2** and shall defend such security interest and such priority against the claims and demands of all Persons (other than the Purchaser Parties).

(c) The Grantor shall furnish to the Collateral Agent from time to time updates to the Disclosure Certificate and other lists, schedules and other documentation as may be requested by the Collateral Agent further identifying and describing the Collateral and such other documentation in connection with the Collateral as the Collateral Agent may reasonably request, all in reasonable detail and in form and substance satisfactory to the Collateral Agent.

(d) At any time and from time to time, upon the written request of the Collateral Agent, the Grantor shall, for the purpose of obtaining or preserving the full benefits of this Agreement and of the rights and powers herein granted, (i) promptly and duly execute and deliver, and have recorded, such further documentation, including an authorization to file (or, as applicable, the filing) of any financing statement or amendment under the UCC (or other filings under similar Regulations) in effect in any jurisdiction with respect to the security interest created hereby and (ii) take such further action as the Collateral Agent may reasonably request, including (A) using its best efforts to secure all approvals necessary or appropriate for the assignment to or for the benefit of the Collateral Agent of any Permit or other agreement, including any IP License, held by the Grantor and to enforce the security interests granted hereunder and (B) [reserved].

(e) If requested by the Collateral Agent, the Grantor shall arrange for the Collateral Agent's first priority security interest to be noted on the certificate of title of each Vehicle and shall file any other necessary documentation in each jurisdiction that the Collateral Agent shall deem advisable to perfect its security interests in any Vehicle.

(f) To ensure that any of the Excluded Property set forth in **clause (ii)** of the definition of "Excluded Property" becomes part of the Collateral, the Grantor shall use its best efforts to obtain any required consents from any Person (other than any Company Party and their respective Affiliates) with respect to any Permit or Contractual Obligation with such Person entered into by the Grantor that requires such consent as a condition to the creation by the Grantor of a Lien on all or part of such Excluded Property.

4.2 Changes in Locations, Name, Etc.

(a) Except upon 30 days' prior written notice to the Collateral Agent and delivery to the Collateral Agent of all documentation reasonably requested by the Collateral Agent to maintain the validity, perfection and priority of the security interests granted in the Transaction Documents, the Grantor shall not do any of the following:

(i) change its jurisdiction of organization or its location, in each case from that referred to in **Section 3.3**; or

(ii) change its legal name or organizational identification number, if any, or corporation, limited liability company, partnership or other organizational structure to such an extent that any financing statement filed in connection with this Agreement would become misleading.

(b) The Grantor shall not permit any inventory or equipment to be kept at a location other than those listed on the Disclosure Certificate, except for inventory or equipment in transit.

4.3 Pledged Collateral.

(a) The Grantor shall (i) deliver to the Collateral Agent, in suitable form for transfer and in form and substance satisfactory to the Collateral Agent, (A) all Pledged Certificated Stock, (B) all Pledged Debt Instruments and (C) all certificates and instruments evidencing Pledged Investment Property and (ii) [reserved].

(b) **Event of Default**. During the continuance of an Event of Default, the Collateral Agent shall have the right, at any time in its discretion and without notice to the Grantor, to (i) transfer to or to register in its name or in the name of its nominees any Pledged Collateral or any Pledged Investment Property and (ii) exchange any certificate or instrument representing or evidencing any Pledged Collateral or any Pledged Investment Property for certificates or instruments of smaller or larger denominations.

(c) **Cash Distributions with respect to Pledged Collateral**. Except as provided in **Article V**, the Grantor shall be entitled to receive all cash distributions paid in respect of the Pledged Collateral.

(d) **Voting Rights**. Except as provided in **Article V**, the Grantor shall be entitled to exercise all voting, consent and corporate, partnership, limited liability company and similar rights with respect to the Pledged Collateral; **provided**, that no vote shall be cast, consent given or right exercised or other action taken by the Grantor that would impair the Collateral or be inconsistent with or result in any violation of any provision of any Transaction Document.

4.4 Accounts. (a) The Grantor shall not, other than in the ordinary course of business, (i) grant any extension of the time of payment of any account, (ii) compromise or settle any account for less than the full amount thereof, (iii) release, wholly or partially, any Person liable for the payment of any account, (iv) allow any credit or discount on any account or (v) amend, supplement or modify any account in any manner that could adversely affect the value thereof.

(b) The Collateral Agent shall have the right to make test verifications of the Accounts in any manner and through any medium that it reasonably considers advisable, and, subject to the requirements set forth in **Section 4.7 (Material Non-Public Information)** of the Purchase Agreement, the Grantor shall furnish all such assistance and information as the Collateral Agent may reasonably require in connection therewith. At any time and from time to time, upon the Collateral Agent's request, subject to the requirements set forth in **Section 4.7 (Material Non-Public Information)** of the Purchase Agreement, the Grantor shall cause independent public accountants or others satisfactory to the Collateral Agent to furnish to the Collateral Agent reports showing reconciliations, aging and test verifications of, and trial balances for, the accounts.

4.5 Equipment and Commodity Contracts. (a) The Grantor will use all equipment constituting Collateral solely in the ordinary course of business, will keep all tangible Collateral in good order and repair, and will not waste or destroy any part of the Collateral. The Grantor will not use any of the Collateral in violation of any Regulation in any material respect.

(b) Except in the ordinary course of business (to the extent disclosed to the Purchasers and the Collateral Agent prior to the date hereof) and except as expressly permitted by this Agreement or the Purchase Agreement, the Collateral Agent does not authorize the Grantor to, and the Grantor will not, without the Collateral Agent's prior written consent, sell, lease, assign, license, transfer, or otherwise dispose of or in any manner alter, modify, manufacture, process, or assemble the Collateral or any part thereof.

(c) The Grantor may dispose of any equipment constituting Collateral which is worn out, destroyed, or damaged beyond repair;**provided,** that the Grantor (i) promptly replaces such disposed of equipment with new equipment, free of any Lien except for Permitted Liens, which has a value or utility at least equal as of the date of replacement to the value or utility of the replaced equipment as of the date hereof and (ii) provides the Collateral Agent with at least five (5) Business Days' prior written notice of any such disposition of Equipment.

(d) The Grantor shall not have any commodity contract other than with a Person approved by the Collateral Agent and subject to a Control Agreement.

4.6 Delivery of Instruments and Tangible Chattel Paper and Control of Investment Property, Letter-of-Credit Rights and Electronic Chattel Paper (a) If any amount payable under or in connection with any Collateral owned by the Grantor shall be or become evidenced by an instrument or tangible chattel paper other than such instrument delivered in accordance with Section 4.3(a) and in the possession of the Collateral Agent, the Grantor shall mark all such instruments and tangible chattel paper with the following legend: "This writing and the obligations evidenced or secured hereby are subject to the security interest BALMORAL FINANCIAL GROUP LLC, as Collateral Agent" and, at the request of the Collateral Agent, shall immediately deliver such instrument or tangible chattel paper to the Collateral Agent, duly indorsed in a manner satisfactory to the Collateral Agent.

(b) The Grantor shall not grant "control" (within the meaning of such term under Article 9-106 of the UCC) over any investment property to any Person other than the Collateral Agent.

(c) If the Grantor is or becomes the beneficiary of a letter of credit that is not a supporting obligation of any Collateral, the Grantor shall promptly, and in any event within two (2) Business Days after becoming a beneficiary, notify the Collateral Agent thereof and enter into an agreement with the Collateral Agent, the issuer of such letter of credit or any nominated person with respect to the letter-of-credit rights under such letter of credit. Such agreement shall assign such letter-of-credit rights to the Collateral Agent and such assignment shall be sufficient to grant control for the purposes of Section 9-107 of the UCC (or any similar section under any equivalent UCC). Such agreement shall also direct all payments thereunder to an account controlled (as defined in the UCC) by the Collateral Agent. The provisions of such agreement shall be in form and substance reasonably satisfactory to the Collateral Agent.

(d) If any amount payable under or in connection with any Collateral owned by the Grantor shall be or become evidenced by electronic chattel paper, the Grantor shall take all steps necessary to grant the Collateral Agent control of all such electronic chattel paper for the purposes of Section 9-105 of the UCC (or any similar section under any equivalent UCC) and all "transferable records" as defined in each of the Uniform Electronic Transactions Act and the Electronic Signatures in Global and National Commerce Act.

4.7 Intellectual Property. (a) Within 60 days after inclusion of any new Intellectual Property in the Disclosure Certificate, the Grantor shall provide the Collateral Agent notification thereof and the short-form intellectual property agreements and assignments as described in this **Section 4.7** and other documentation that the Collateral Agent reasonably requests with respect thereto.

(b) The Grantor shall (and shall cause all its licensees to) (i) (1) continue to use each Trademark included in the Intellectual Property in order to maintain such Trademark in full force and effect with respect to each class of goods for which such Trademark is currently used, free from any claim of abandonment for non-use, (2) maintain at least the same standards of quality of products and services offered under such Trademark as are currently maintained, (3) use such Trademark with the appropriate notice of registration and all other notices and legends required by applicable Regulations, (4) not adopt or use any other Trademark that is confusingly similar or a colorable imitation of such Trademark unless the Collateral Agent shall obtain a perfected security interest in such other Trademark pursuant to this Agreement and (ii) not do any act or omit to do any act whereby (w) such Trademark (or any goodwill associated therewith) may become destroyed, invalidated, impaired or harmed in any way, (x) any Patent included in the Intellectual Property may become forfeited, misused, unenforceable, abandoned or dedicated to the public, (y) any portion of the Copyrights included in the Intellectual Property may become invalidated, otherwise impaired or fall into the public domain or (z) any Trade Secret that is Intellectual Property may become publicly available or otherwise unprotectable.

(c) The Grantor shall notify the Collateral Agent immediately if it knows, or has reason to know, that any application or registration relating to any Intellectual Property may become forfeited, misused, unenforceable, abandoned or dedicated to the public, or of any adverse determination or development regarding the validity or enforceability or the Grantor's ownership of, interest in, right to use, register, own or maintain any Intellectual Property (including the institution of, or any such determination or development in, any proceeding relating to the foregoing in any Applicable IP Office). The Grantor shall take all actions that are necessary or reasonably requested by the Collateral Agent to maintain and pursue each application (and to obtain the relevant registration or recordation) and to maintain each registration and recordation included in the Intellectual Property.

(d) The Grantor shall not knowingly do any act or omit to do any act to infringe, misappropriate, dilute, violate or otherwise impair the Intellectual Property of any other Person. In the event that any Intellectual Property of the Grantor is or has been infringed, misappropriated, violated, diluted or otherwise impaired by a third party, the Grantor shall take such action as it reasonably deems appropriate under the circumstances in response thereto, including promptly bringing suit and recovering all damages therefor.

(e) The Grantor shall execute and deliver to the Collateral Agent in form and substance reasonably acceptable to the Collateral Agent and suitable for (i) filing in the Applicable IP Office the short-form intellectual property security agreement in the form attached hereto as **Annex 3** for all Patents of the Grantor and (ii) recording with the appropriate Internet domain name registrar, a duly executed form of assignment for all Internet Domain Names of the Grantor (together with appropriate supporting documentation as may be requested by the Collateral Agent).

4.8 Landlord Waivers. If any Collateral is at any time not in transit and located on any Real Property not owned and possessed by a Grantor, the Grantor shall provide prompt written notice to the Collateral Agent and notify any owner, lessor, licensor of any part of, or any other Person having any right to enter on any part of, such Real Property of the Collateral Agent's security interest in such Collateral. Upon the Collateral Agent's request and option, the Grantor shall (i) instruct each such owner, lessor, licensor and other Person to hold all such Collateral for the Collateral Agent's account subject to the Grantor's instructions, or, if an Event of Default shall have occurred, subject to the Collateral Agent's instructions and (ii) cause each such owner, lessor, licensor and other Person to enter into a landlord waiver in form and substance satisfactory to the Collateral Agent.

4.9 Third-Party Possession or Control. If any Collateral is at any time in the possession or control of any warehouseman, bailee, agent or independent contractor, the Grantor shall provide prompt written notice to the Collateral Agent and notify such warehouseman, bailee, agent or independent contractor of the Collateral Agent's security interest in such Collateral. Upon the Collateral Agent's request and option, the Grantor shall (i) instruct any such warehouseman, bailee, agent or independent contractor to hold all such Collateral for the Collateral Agent's account subject to the Grantor's instructions, or, if an Event of Default shall have occurred, subject to the Collateral Agent's instructions and (ii) cause any such warehouseman, bailee, agent or independent contractor to enter into a collateral access agreement in form and substance satisfactory to the Collateral Agent.

4.10 Acquired Real Property. In the event the Grantor hereafter acquires any interest in any Real Property, the Grantor shall promptly: (a) provide the Collateral Agent with a description of the location of the applicable Real Property; (b) provide the Collateral Agent with a legal description of such Real Property sufficient to enable the Collateral Agent to record the financing statements in the appropriate Real Property records and the name of the record owner of the real estate if other than the Grantor and real estate descriptions; and (c) pay to the Collateral Agent the related filing fee and any recording or stamp taxes due in connection with such filings.

4.11 Notices. The Grantor shall promptly notify the Collateral Agent in writing of its acquisition of any interest hereafter in property that is of a type where a security interest or lien must be or may be registered, recorded or filed under, or notice thereof given under, any federal statute or regulation. In addition, the Grantor shall promptly notify the Collateral Agent of each of the following: (a) any material adverse change in the Grantor's financial condition or any change that materially affects any of the Collateral or the related security interest, (b) any claim, action, or proceeding which could materially and adversely affect the value of, or any the Grantor's title to, any of the Collateral, or the effectiveness of the security interest, and (c) the occurrence of any Event of Default.

4.12 Notice of Commercial Tort Claims. The Grantor agrees that, if it shall acquire any interest in any commercial tort claim (whether from another Person or because such commercial tort claim shall have come into existence), (i) the Grantor shall deliver to the Collateral Agent within fifteen (15) calendar days of such acquisition, an update to the Disclosure Certificate that shall include a specific description of such commercial tort claim and the Grantor shall deliver any information about such commercial tort claim as the Collateral Agent shall reasonable request, (ii) **Section 2.1** shall apply to such commercial tort claim and (iii) within fifteen (15) calendar days of such acquisition, the Grantor shall execute and deliver to the Collateral Agent, in each case in form and substance satisfactory to the Collateral Agent, any documentation, and take all other action, deemed by the Collateral Agent to be reasonably necessary or appropriate for the Collateral Agent to obtain, a perfected security interest having at least the priority set forth in **Section 3.2** in all such commercial tort claims.

4.13 Compliance with Purchase Agreement. The Grantor hereby makes all representations and warranties, and agrees to comply with all covenants and other provisions, applicable to it or any of its Subsidiaries under the Purchase Agreement, including **Section 3.1 Representations and Warranties of the Company Parties, 4.8 Use of Proceeds, 4.9 Indemnification of Each Purchaser Party, 5.8 Collateral Agent May File Proof of Claims and 6.2 Fees and Expenses** and of the Purchase Agreement and agrees to the same submission to jurisdiction as that agreed to by the Company in the Purchase Agreement. Any update to the Disclosure Certificate delivered in accordance with the Transaction Documents shall, after the receipt thereof by the Collateral Agent, become part of the Disclosure Certificate for all purposes hereunder other than in respect of representations and warranties made prior to the date of such receipt.

ARTICLE V REMEDIES

5.1 Code and Other Remedies.

(a) **UCC Remedies**. During the continuance of an Event of Default, the Collateral Agent may exercise, in addition to all other rights and remedies granted to it in this Agreement and in any other instrument or agreement securing, evidencing or relating to any Secured Obligation, all rights and remedies of a Purchaser Party under the UCC or any other applicable law.

(b) **Disposition of Collateral.** Without limiting the generality of the foregoing, the Collateral Agent may, without demand of performance or other demand, presentment, protest, advertisement or notice of any kind (except any notice required by law referred to below) to or upon the Grantor or any other Person (all and each of which demands, defenses, advertisements and notices are hereby waived), during the continuance of any Event of Default (personally or through its agents or attorneys), (i) enter upon the premises where any Collateral is located, without any obligation to pay rent, through self-help, without judicial process, without first obtaining a final judgment or giving the Grantor or any other Person notice or opportunity for a hearing on the Collateral Agent's claim or action, (ii) collect, receive, appropriate and realize upon any Collateral and (iii) as further set forth herein, enter into transfers, sales, or other dispositions of, grant option or options to purchase and deliver, any Collateral (enter into any Contractual Obligation to do any of the foregoing), in one or more parcels at public or private sale or sales, at any exchange, broker's board or office of any Purchaser Party or elsewhere upon such terms and conditions and times and locations as it may deem advisable and at such prices as it may deem best, for cash or on credit or for future delivery without assumption of any credit risk.

(c) **Regulated Sales**. To the extent, and only to the extent, required by Regulation and prohibited by Regulation to be waived by the Grantor (which the Grantor hereby expressly waives to the fullest extent permitted by Regulation), the Grantor agrees that ten (10) days' written notice is reasonable notice within the meaning of Section 9-611 of the UCC or its equivalent in other jurisdictions of the Collateral Agent's intention to make any transfer, sale or other dispositions of any Collateral. Any such public sale shall be held at such time or times within ordinary business hours and at such place or places as the Collateral Agent may fix and state in the notice (if any) of such sale. At any such sale, the Collateral, or portion thereof, to be sold may be sold in one lot as an entirety or in separate parcels, as the Collateral Agent may determine in its sole and absolute discretion. The Collateral Agent shall not be obligated to sell any Collateral if it shall determine not to do so, regardless of the fact that notice of sale of such Collateral shall have been given. The Collateral Agent may, without notice or publication, adjourn any public or private sale or cause the same to be adjourned from time to time by announcement at the time and place fixed for sale, and such sale may, without further notice, be made at the time and place to which the same was so adjourned. In case any sale of all or any part of the Collateral is made on credit or for future delivery, the Collateral so sold may be retained by the Collateral Agent until the sale price is paid by the purchaser or purchasers thereof, but none of the Collateral Agent or the other Purchaser Parties shall incur any Liability in case any such purchaser or purchasers shall fail to take up and pay for the Collateral so sold and, in case of any such failure, such Collateral may be sold again upon like notice. At any public (or, to the extent permitted by Regulations, private) sale made in accordance with the Transaction Documents, the Collateral Agent and any other Purchaser Party may bid for or purchase, free (to the extent permitted by Regulation) from any right or equity of redemption, stay, valuation or appraisal on the part of the Grantor (all said rights being also hereby waived and released to the extent permitted by law), the Collateral or any part thereof offered for sale and may make payment on account thereof by using any Obligation then due and payable to the Purchaser Parties (in the case of the Collateral Agent) or, as the case may be, such Purchaser Party from the Grantor as a credit against the purchase price, and the Collateral Agent (or, as the case may be, such Purchaser Party) may, upon compliance with the terms of sale, hold, retain and dispose of such property without further accountability to the Grantor therefor. For purposes hereof, a written agreement to purchase the Collateral or any portion thereof shall be treated as a sale thereof; the Collateral Agent shall be free to carry out such sale pursuant to such agreement and no Grantor shall be entitled to the return of the Collateral or any portion thereof subject thereto, notwithstanding the fact that after the Collateral Agent shall have entered into such an agreement, all Events of Default shall have been remedied and no Obligation shall remain outstanding. As an alternative to exercising the power of sale herein conferred upon it, the Collateral Agent may proceed by a suit or suits at law or in equity to foreclose this Agreement and to sell the Collateral or any portion thereof pursuant to a judgment or decree of a court or courts having competent jurisdiction or pursuant to a proceeding by a court-appointed receiver. Any sale pursuant to the provisions of this **Section 5.1** shall be deemed to conform to the commercially reasonable standards as provided in Section 9-610(b) of the UCC or its equivalent in other jurisdictions.

(d) **Management of the Collateral.** The Grantor further agrees, that, during the continuance of any Event of Default, (i) at the Collateral Agent's request, it shall assemble the Collateral and make it available to the Collateral Agent at places that the Collateral Agent shall reasonably select, whether at the Grantor's premises or elsewhere, (ii) without limiting the foregoing, the Collateral Agent also has the right to require that the Grantor store and keep any Collateral pending further action by the Collateral Agent and, while any such Collateral is so stored or kept, provide such guards and maintenance services as shall be necessary to protect the same and to preserve and maintain such Collateral in good condition, (iii) until the Collateral Agent is able to enter into an asset sale with respect to any Collateral, the Collateral Agent shall have the right to hold or use such Collateral to the extent that it deems appropriate for the purpose of preserving the Collateral or its value or for any other purpose deemed appropriate by the Collateral Agent and (iv) the Collateral Agent may, if it so elects, seek the appointment of a receiver or keeper to take possession of any Collateral and to enforce any of the Collateral Agent's remedies (for the benefit of the Purchaser Parties), with respect to such appointment without prior notice or hearing as to such appointment. The Collateral Agent shall not have any obligation to the Grantor to maintain or preserve the rights of the Grantor as against third parties with respect to any Collateral while such Collateral is in the possession of the Collateral Agent.

(e) **Application of Proceeds.** The Collateral Agent shall apply the cash proceeds of any action taken by it pursuant to this **Section 5.1**, after deducting all reasonable costs and expenses of every kind incurred in connection therewith or incidental to the care or safekeeping of any Collateral or in any way relating to the Collateral or the rights of the Collateral Agent and any other Purchaser Party hereunder, including reasonable attorneys' fees and disbursements, to the payment in whole or in part of the Obligations, as set forth in the Purchase Agreement, and only after such application and after the payment by the Collateral Agent of any other amount required by any Regulation, need the Collateral Agent account for the surplus, if any, to the Grantor.

(f) **Direct Obligation**. Neither the Collateral Agent nor any other Purchaser Party shall be required to make any demand upon, or pursue or exhaust any right or remedy against, the Grantor, any other Purchaser Party or any other Person with respect to the payment of the Obligations or to pursue or exhaust any right or remedy with respect to any Collateral therefor or any direct or indirect guaranty thereof. All of the rights and remedies of the Collateral Agent and any other Purchaser Party under any Transaction Document shall be cumulative, may be exercised individually or concurrently and not exclusive of any other rights or remedies provided by any Regulation. To the extent it may lawfully do so, the Grantor absolutely and irrevocably waives and relinquishes the benefit and advantage of, and covenants not to assert against the Collateral Agent or any Collateral Agent, any valuation, stay, appraisement, extension, redemption or similar laws and any and all rights or defenses it may have as a surety, now or hereafter existing, arising out of the exercise by them of any rights hereunder. If any notice of a proposed sale or other disposition of any Collateral shall be required by law, such notice shall be deemed reasonable and proper if given at least 10 days before such sale or other disposition.

(g) **Commercially Reasonable**. To the extent that applicable Regulations impose duties on the Collateral Agent to exercise remedies in a commercially reasonable manner, the Grantor acknowledges and agrees that it is not commercially unreasonable for the Collateral Agent to do any of the following:

(i) fail to incur significant costs, expenses or other Liabilities reasonably deemed as such by the Collateral Agent to prepare any Collateral for disposition or otherwise to complete raw material or work in process into finished goods or other finished products for disposition;

(ii) fail to obtain Permits, or other consents, for access to any Collateral to dispose of, or for the collection of, any Collateral, or, if not required by other Regulations, fail to obtain Permits or other consents for the collection or disposition of any Collateral;

(iii) fail to exercise remedies against account debtors or other Persons obligated on any Collateral or to remove Liens on any Collateral or to remove any adverse claims against any Collateral;

(iv) advertise dispositions of any Collateral through publications or media of general circulation, whether or not such Collateral is of a specialized nature or to contact other Persons, whether or not in the same business as the Grantor, for expressions of interest in acquiring any such Collateral;

(v) exercise collection remedies against account debtors and other Persons obligated on any Collateral, directly or through the use of collection agencies or other collection specialists, hire one or more professional auctioneers to assist in the disposition of any Collateral, whether or not such Collateral is of a specialized nature or, to the extent deemed appropriate by the Collateral Agent, obtain the services of other brokers, investment bankers, consultants and other professionals to assist the Collateral Agent in the collection or disposition of any Collateral, or utilize Internet sites that provide for the auction of assets of the types included in the Collateral or that have the reasonable capacity of doing so, or that match buyers and sellers of assets to dispose of any Collateral;

dispose of assets in private sales instead of, or through exchange or wholesale rather than, retail markets;

(vi) disclaim disposition warranties, such as title, possession or quiet enjoyment; or

(vii) purchase insurance or credit enhancements to insure the Collateral Agent against risks of loss, collection or disposition of any Collateral or to provide to the Collateral Agent a guaranteed return from the collection or disposition of any Collateral.

The Grantor acknowledges that the purpose of this **Section 5.1** is to provide a non-exhaustive list of actions or omissions that are commercially reasonable when exercising remedies against any Collateral and that other actions or omissions by the Purchaser Parties shall not be deemed commercially unreasonable solely on account of not being indicated in this **Section 5.1**. Without limitation upon the foregoing, nothing contained in this **Section 5.1** shall be construed to grant any rights to the Grantor or to impose any duties on the Collateral Agent that would not have been granted or imposed by this Agreement or by applicable Regulations in the absence of this **Section 5.1**.

(h) **IP Licenses**. For the purpose of enabling the Collateral Agent to exercise rights and remedies under this **Section 5.1** (including in order to take possession of, collect, receive, assemble, process, appropriate, remove, realize upon, enter into an asset sale with respect to, or grant options to purchase any Collateral) at such time as the Collateral Agent shall be lawfully entitled to exercise such rights and remedies, the Grantor hereby grants to the Collateral Agent, for the benefit of the Purchaser Parties, (i) an irrevocable, nonexclusive, worldwide license (exercisable without payment of royalty or other compensation to the Grantor), including in such license the right to sublicense, use and practice any Intellectual Property now owned or hereafter acquired by the Grantor and access to all media in which any of the licensed items may be recorded or stored and to all Software and programs used for the compilation or printout thereof and (ii) an irrevocable license (without payment of rent or other compensation to the Grantor) to use, operate and occupy all Real Property owned, operated, leased, subleased or otherwise occupied by the Grantor.

(i) **Performance by the Collateral Agent or any other Purchaser Party**. The Collateral Agent may, but is not obligated to, perform or attempt to perform any Contractual Obligation of the Grantor contained herein with or without prior written notice to the Grantor. If any material part of the Collateral becomes the subject of any Proceeding and the Grantor fails to defend fully such Proceeding and to protect the Grantor's and Purchaser Parties' rights in such Collateral in good faith, the Collateral Agent may, at its option but at Grantor's cost, elect to defend and control the defense of such litigation or other proceeding, and may (i) select and retain counsel, (ii) determine whether settlement shall be offered or accepted, and (iii) determine and negotiate all settlement terms.

5.2 Accounts and Payments in Respect of General Intangibles.

(a) In addition to, and not in substitution for, any similar requirement in the Purchase Agreement, if required by the Collateral Agent at any time during the continuance of an Event of Default, any payment of accounts or payment in respect of general intangibles, when collected by the Grantor, shall be promptly (and, in any event, within two (2) Business Days) deposited by the Grantor in the exact form received, duly indorsed by the Grantor to the Collateral Agent, in a Collection Account, subject to withdrawal by the Collateral Agent as provided in **Section 5.4**. Until so turned over, such payment shall be held by the Grantor in trust for the Collateral Agent, segregated from other funds of the Grantor. Each such deposit of proceeds of accounts and payments in respect of general intangibles shall be accompanied by a report identifying in reasonable detail the nature and source of the payments included in the deposit.

(b) At any time during the continuance of an Event of Default:

(i) the Grantor shall, upon the Collateral Agent's request, deliver to the Collateral Agent all original and other documentation evidencing, and relating to, the agreements, arrangements and transactions that gave rise to any account or any payment in respect of general intangibles, including all original orders, invoices and shipping receipts and notify account debtors that the accounts or general intangibles have been collaterally assigned to the Collateral Agent and that payments in respect thereof shall be made directly to the Collateral Agent;

(ii) the Collateral Agent may, without notice, at any time during the continuance of an Event of Default, limit or terminate the authority of the Grantor to collect its accounts or amounts due under general intangibles or any thereof and, in its own name or in the name of others, communicate with account debtors to verify with them to the Collateral Agent's satisfaction the existence, amount and terms of any account or amounts due under any general intangible. In addition, the Collateral Agent may at any time enforce the Grantor's rights against such account debtors and obligors of general intangibles; and

(iii) the Grantor shall take all actions, deliver all documentation and provide all information necessary or reasonably requested by the Collateral Agent to ensure any Internet Domain Name is registered.

(c) Anything herein to the contrary notwithstanding, the Grantor shall remain liable under each account and each payment in respect of general intangibles to observe and perform all the conditions and obligations to be observed and performed by it thereunder, all in accordance with the terms of any agreement giving rise thereto. No Purchaser Party shall have any obligation or liability under any agreement giving rise to an account or a payment in respect of a general intangible by reason of or arising out of any Transaction Document or the receipt by any Purchaser Party of any payment relating thereto, nor shall any Purchaser Party be obligated in any manner to perform any obligation of the Grantor under or pursuant to any agreement giving rise to an account or a payment in respect of a general intangible, to make any payment, to make any inquiry as to the nature or the sufficiency of any payment received by it or as to the sufficiency of any performance by any party thereunder, to present or file any claim, to take any action to enforce any performance or to collect the payment of any amounts that may have been assigned to it or to which it may be entitled at any time or times.

5.3 Pledged Collateral.

(a) **Voting Rights**. During the continuance of an Event of Default, upon notice by the Collateral Agent to the Grantor, the Collateral Agent or its nominee may exercise (A) any voting, consent, corporate and other right pertaining to the Pledged Collateral at any meeting of shareholders, partners or members, as the case may be, of the relevant issuer or issuers of Pledged Collateral or otherwise and (B) any right of conversion, exchange and subscription and any other right, privilege or option pertaining to the Pledged Collateral as if it were the absolute owner thereof (including the right to exchange at its discretion any Pledged Collateral upon the merger, amalgamation, consolidation, reorganization, recapitalization or other fundamental change in the corporate or equivalent structure of any issuer of Pledged Stock, the right to deposit and deliver any Pledged Collateral with any committee, depositary, transfer agent, registrar or other designated agency upon such terms and conditions as the Collateral Agent may determine), all without liability except to account for property actually received by it; **provided**, **however**, that the Collateral Agent shall have no duty to the Grantor to exercise any such right, privilege or option and shall not be responsible for any failure to do so or delay in so doing.

(b) **Proxies**. In order to permit the Collateral Agent to exercise the voting and other consensual rights that it may be entitled to exercise pursuant hereto and to receive all dividends and other distributions that it may be entitled to receive hereunder, (i) the Grantor shall promptly execute and deliver (or cause to be executed and delivered) to the Collateral Agent all such proxies, dividend payment orders and other instruments as the Collateral Agent may from time to time reasonably request and (ii) without limiting the effect of **clause (i)** above, the Grantor hereby grants to the Collateral Agent an irrevocable proxy to vote all or any part of the Pledged Collateral and to exercise all other rights, powers, privileges and remedies to which a holder of the Pledged Collateral would be entitled (including giving or withholding written consents of shareholders, partners or members, as the case may be, calling special meetings of shareholders, partners or members, as the case may be, and voting at such meetings), which proxy shall be effective, automatically and without the necessity of any action (including any transfer of any Pledged Collateral on the record books of the issuer thereof) by any other person (including the issuer of such Pledged Collateral or any officer or agent thereof) during the continuance of an Event of Default and which proxy shall remain in place as long as any Obligation shall remain outstanding.

(c) **Authorization of Issuers**. The Grantor hereby expressly irrevocably authorizes and instructs, without any further instructions from the Grantor, each issuer of any Pledged Collateral pledged hereunder by the Grantor to (i) comply with any instruction received by it from the Collateral Agent in writing that states that an Event of Default is continuing and is otherwise in accordance with the terms of this Agreement and the Grantor agrees that such issuer shall be fully protected from Liabilities to the Grantor in so complying and (ii) unless otherwise expressly permitted hereby, pay any dividend or make any other payment with respect to the Pledged Collateral directly to the Collateral Agent.

5.4 Proceeds to be Turned over to and Held by Collateral Agent. Unless otherwise expressly provided in the Purchase Agreement or this Agreement, all proceeds of any Collateral received by the Grantor hereunder in Cash, certificates of deposit, bankers' acceptances, time and demand deposits and other similar cash equivalents shall be held by the Grantor in trust for the Collateral Agent and the other Purchaser Parties, segregated from other funds of the Grantor, and shall, promptly upon receipt by the Grantor, be turned over to the Collateral Agent in the exact form received (with any necessary endorsement). All such proceeds and other proceeds being held by the Collateral Agent (or by the Grantor in trust for the Collateral Agent) shall continue to be held as collateral security for the Secured Obligations and shall not constitute payment thereof until applied as provided in the Purchase Agreement.

5.5 Registration Rights.

(a) If, in the opinion of the Collateral Agent, it is necessary or advisable to transfer any portion of the Pledged Collateral by registering such Pledged Collateral under the provisions of the Securities Act of 1933 (the "**Securities Act**"), the Grantor shall cause the issuer thereof to do or cause to be done all acts as may be, in the opinion of the Collateral Agent, necessary or advisable to register such Pledged Collateral or that portion thereof to be transferred under the provisions of the Securities Act, all as directed by the Collateral Agent in conformity with the requirements of the Securities Act and the rules and regulations of the Securities and Exchange Commission applicable thereto and in compliance with the securities or "**Blue Sky**" laws of any jurisdiction that the Collateral Agent shall designate.

(b) The Grantor recognizes that the Collateral Agent may be unable to effect a public sale of any Pledged Collateral by reason of certain prohibitions contained in the Securities Act and applicable state or foreign securities laws or otherwise or may determine that a public sale is impracticable, not desirable or not commercially reasonable and, accordingly, may resort to one or more private sales thereof to a restricted group of purchasers that shall be obliged to agree, among other things, to acquire such securities for their own account for investment and not with a view to the distribution or resale thereof. The Grantor acknowledges and agrees that any such private sale may result in prices and other terms less favorable than if such sale were a public sale and, notwithstanding such circumstances, agrees that any such private sale shall be deemed to have been made in a commercially reasonable manner. The Collateral Agent shall be under no obligation to delay a sale of any Pledged Collateral for the period of time necessary to permit the issuer thereof to register such securities for public sale under the Securities Act or under applicable state securities laws even if such issuer would agree to do so.

(c) The Grantor agrees to use its best efforts to do or cause to be done all such other acts as may be necessary to make such sale or sales of any portion of the Pledged Collateral pursuant to this **Section 5.5** valid and binding and in compliance with all applicable Regulations. The Grantor further agrees that a breach of any covenant contained in this **Section 5.5** will cause irreparable injury to the Collateral Agent and other Purchaser Parties, that the Collateral Agent and the other Purchaser Parties have no adequate remedy at law in respect of such breach and, as a consequence, that each and every covenant contained in this **Section 5.5** shall be specifically enforceable against the Grantor, and the Grantor hereby waives and agrees not to assert any defense against an action for specific performance of such covenants except for a defense that no Event of Default has occurred under the Purchase Agreement.

5.6 Deficiency. The Grantor shall remain liable for any deficiency if the proceeds of any sale or other disposition of any Collateral are insufficient to pay the Secured Obligations and the fees and disbursements of any attorney employed by the Collateral Agent or any other Purchaser Party to collect such deficiency.

ARTICLE VI OTHER RIGHTS OF COLLATERAL AGENT

6.1 Collateral Agent's Appointment as Attorney-in-Fact . (a) The Grantor hereby irrevocably constitutes and appoints the Collateral Agent thereof, with full power of substitution, as its true and lawful attorney-in-fact with full irrevocable power and authority in the place and stead of the Grantor and in the name of the Grantor or in its own name, for the purpose of carrying out the terms of the Transaction Documents, to take any appropriate action and to execute any documentation or instrument that may be necessary or desirable to accomplish the purposes of the Transaction Documents, and, without limiting the generality of the foregoing, the Grantor hereby gives the Collateral Agent the power and right, on behalf of the Grantor, without notice to or assent by the Grantor, to do any of the following when an Event of Default shall be continuing:

(i) in the name of the Grantor, in its own name or otherwise, take possession of and indorse and collect any check, draft, note, acceptance or other instrument for the payment of moneys due under any account or general intangible or with respect to any other Collateral and file any claim or take any other action or proceeding in any court of law or equity or otherwise deemed appropriate by the Collateral Agent for the purpose of collecting any such moneys due under any account or general intangible or with respect to any other Collateral whenever payable;

(ii) in the case of any Intellectual Property owned by or licensed to the Grantor, execute, deliver and have recorded any documentation that the Collateral Agent may request to evidence, effect, publicize or record the Collateral Agent's security interest in such Intellectual Property and the goodwill and general intangibles of the Grantor relating thereto or represented thereby;

(iii) pay or discharge taxes and Liens levied or placed on or threatened against any Collateral, effect any repair or pay any insurance called for by the terms of the Purchase Agreement (including all or any part of the premiums therefor and the costs thereof);

(iv) execute, in connection with any sale provided for in**Section 5.1** or **Section 5.5**, any documentation to effect or otherwise necessary or appropriate in relation to evidence the transfer of any Collateral; or

(v) (A) direct any party liable for any payment under any Collateral to make payment of any moneys due or to become due thereunder directly to the Collateral Agent or as the Collateral Agent shall direct, (B) ask or demand for, and collect and receive payment of and receipt for, any moneys, claims and other amounts due or to become due at any time in respect of or arising out of any Collateral, (C) sign and indorse any invoice, freight or express bill, bill of lading, storage or warehouse receipt, draft against debtors, assignment, verification, notice and other documentation in connection with any Collateral, (D) commence and prosecute any suit, action or proceeding at law or in equity in any court of competent jurisdiction to collect any Collateral and to enforce any other right in respect of any Collateral, (E) defend any actions, suits, proceedings, audits, claims, demands, orders or disputes brought against the Grantor with respect to any Collateral, (F) settle, compromise or adjust any such actions, suits, proceedings, audits, claims, demands, orders or disputes and, in connection therewith, give such discharges or releases as the Collateral Agent may deem appropriate, (G) assign any Intellectual Property owned by the Grantor or any IP Licenses of the Grantor throughout the world on such terms and conditions and in such manner as the Collateral Agent shall in its sole discretion determine, including the execution and filing of any documentation necessary to effectuate or record such assignment and (H) generally, enter into an Asset Sale with respect to, grant a Lien on, enter into any agreement or other obligation with respect to and otherwise deal with, any Collateral as fully and completely as though the Collateral Agent were the absolute owner thereof for all purposes and do, at the Collateral Agent's option, at any time or from time to time, all acts and things that the Collateral Agent deems necessary to protect, preserve or realize upon any Collateral and the Purchaser Parties' security interests therein and to effect the intent of the Transaction Documents, all as fully and effectively as the Grantor might do.

(b) If the Grantor fails to perform or comply with any obligation contained herein, the Collateral Agent, at its option, but without any obligation so to do, may perform or comply, or otherwise cause performance or compliance, with such obligation.

(c) The expenses of the Collateral Agent incurred in connection with actions undertaken as provided in this **Section 6.1**, together with interest thereon at the rate set forth in **Section 2.2** (**Interest**) of the Purchase Agreement, from the date of payment by the Collateral Agent to the date reimbursed by the Grantor, shall be payable by the Grantor to the Collateral Agent on demand.

(d) The Grantor hereby ratifies all that said attorneys shall lawfully do or cause to be done by virtue of this **Section 6.1**. All powers, authorizations and agencies contained in this Agreement are coupled with an interest and are irrevocable until this Agreement is terminated and the security interests created hereby are released.

6.2 Authorization to File Financing Statements. The Grantor authorizes the Collateral Agent, its Affiliates and their Related Parties, contractors and agents, at any time and from time to time, to file or record financing statements, amendments thereto, and other filing or recording documentation or instruments with respect to any Collateral in such form and in such offices as the Collateral Agent reasonably determines appropriate to perfect the security interests of the Collateral Agent under this Agreement, and such financing statements and amendments may describe the Collateral covered thereby as "all assets of the debtor" or words of similar effect, regardless of whether any particular asset comprised in the Collateral falls within the scope of Article 9 of the applicable UCC, and contain any other information required pursuant to the UCC for the sufficiency or filing office acceptance of any financing statement or amendment, including, in the case of financing statements filed as fixture filings or indicating Collateral as as-extracted collateral or as otherwise required by applicable Regulation, a sufficient description of the Real Property related to the applicable Collateral. A photographic or other reproduction of this Agreement shall be sufficient as a financing statement or other filing or recording documentation or instrument for filing or recording in any jurisdiction. The Grantor also hereby ratifies its authorization for the Collateral Agent to have filed any initial financing statement or amendment thereto under the UCC (or other similar laws) in effect in any jurisdiction if filed prior to the date hereof.

6.3 Authority of Collateral Agent . The Grantor acknowledges that the rights and responsibilities of the Collateral Agent under this Agreement with respect to any action taken by the Collateral Agent or the exercise or non-exercise by the Collateral Agent of any option, voting right, request, judgment or other right or remedy provided for herein or resulting or arising out of this Agreement shall, as between the Collateral Agent and the other Purchaser Parties, be governed by the Purchase Agreement and by such other agreements with respect thereto as may exist from time to time among them, but, as between the Collateral Agent and the Grantor, the Collateral Agent shall be conclusively presumed to be acting as agent for the Purchaser Parties with full and valid authority so to act or refrain from acting, and no Grantor shall be under any obligation or entitlement to make any inquiry respecting such authority.

6.4 Duty; Obligations and Liabilities. The Collateral Agent's sole duty with respect to the custody, safekeeping and physical preservation of the Collateral in its possession shall be to deal with it in the same manner as the Collateral Agent deals with similar property for its own account. The powers conferred on the Collateral Agent hereunder are solely to protect the Collateral Agent's interest in the Collateral and shall not impose any duty upon the Collateral Agent to exercise any such powers. The Collateral Agent shall be accountable only for amounts that it receives as a result of the exercise of such powers, and neither it nor any of its Affiliates shall be responsible to the Grantor for any act or failure to act hereunder, except for their own gross negligence or willful misconduct as finally determined by a court of competent jurisdiction. In addition, the Collateral Agent shall not be liable or responsible for any loss or damage to any Collateral, or for any diminution in the value thereof, by reason of the act or omission of any warehousemen, carrier, forwarding agency, consignee or other bailee if such Person has been selected by the Collateral Agent in good faith.

6.5 Obligations and Liabilities with respect to Collateral. No Purchaser Party and no Affiliate thereof shall be liable for failure to demand, collect or realize upon any Collateral or for any delay in doing so or shall be under any obligation to sell or otherwise dispose of any Collateral upon the request of the Grantor or any other Person or to take any other action whatsoever with regard to any Collateral. The powers conferred on the Collateral Agent hereunder shall not impose any duty upon any other Purchaser Party to exercise any such powers. The other Purchaser Parties shall be accountable only for amounts that they actually receive as a result of the exercise of such powers, and neither they nor any of their respective officers, directors, employees or agents shall be responsible to the Grantor for any act or failure to act hereunder, except for their own gross negligence or willful misconduct as finally determined by a court of competent jurisdiction.

ARTICLE VII MISCELLANEOUS

7.1 Reinstatement. The Grantor agrees that, if any payment made by any Purchaser Party or other Person and applied to the Secured Obligations is at any time annulled, avoided, set aside, rescinded, invalidated, declared to be fraudulent or preferential or otherwise required to be refunded or repaid, or the proceeds of any Collateral are required to be returned by any Purchaser Party to such Purchaser Party, its estate, trustee, receiver or any other party, including the Grantor, under any bankruptcy law, state or federal law, common law or equitable cause, then, to the extent of such payment or repayment, any Lien or other Collateral securing such liability shall be and remain in full force and effect, as fully as if such payment had never been made. If, prior to any of the foregoing, any Lien or other Collateral securing the Grantor's liability hereunder shall have been released or terminated by virtue of the foregoing or (b) any other provision of this Agreement shall have been terminated, cancelled or surrendered, such Lien, other Collateral or provision shall be reinstated in full force and effect and such prior release, termination, cancellation or surrender shall not diminish, release, discharge, impair or otherwise affect the obligations of any the Grantor in respect of any Lien or other Collateral securing such obligation or the amount of such payment.

7.2 Independent Obligations. The obligations of the Grantor hereunder are independent of and separate from the Secured Obligations. If any Secured Obligation is not paid when due, or upon any Event of Default, the Collateral Agent may, at its sole election, proceed directly and at once, without notice, against the Grantor and any Collateral to collect and recover the full amount of any Secured Obligation then due, without first proceeding against any other Grantor, any other Company Party or any other Collateral and without first joining any other Grantor or any other Company Party in any proceeding.

7.3 No Waiver by Course of Conduct. No Purchaser Party shall by any act (except by a written instrument pursuant to **Section 7.4**), delay, indulgence, omission or otherwise be deemed to have waived any right or remedy hereunder or to have acquiesced in any Default or Event of Default. No failure to exercise, nor any delay in exercising, on the part of any Purchaser Party, any right, power or privilege hereunder shall operate as a waiver thereof. No single or partial exercise of any right, power or privilege hereunder shall preclude any other or further exercise thereof or the exercise of any other right, power or privilege. A waiver by any Purchaser Party of any right or remedy hereunder on any one occasion shall not be construed as a bar to any right or remedy that such Purchaser Party would otherwise have on any future occasion.

7.4 Amendments in Writing. None of the terms or provisions of this Agreement may be waived, amended, supplemented or otherwise modified except in accordance with **Section 10.1** of the Purchase Agreement; **provided**, that annexes to this Agreement may be supplemented (but no existing provisions may be modified and no Collateral may be released) through Pledge Amendments and Joinder Agreements, in substantially the form of **Annex 1** and **Annex 2**, respectively, in each case duly executed by the Collateral Agent and the Grantor directly affected thereby.

7.5 Additional Grantors; Additional Pledged Collateral.

(a) **Joinder Agreements**. Consistent with **Section 7.5** of the Purchase Agreement, the Company shall cause any Subsidiary that is not a Grantor to become a Grantor hereunder. Each such Subsidiary shall execute and deliver to the Collateral Agent a Joinder Agreement substantially in the form of **Annex 2** and shall thereafter for all purposes be a party hereto and have the same rights, benefits and obligations as a Grantor party hereto on the Closing Date.

(b) **Pledge Amendments**. To the extent any Pledged Collateral has not been delivered as of the Closing Date, the Grantor shall deliver a pledge amendment duly executed by the Grantor in substantially the form of **Annex 1** (each, a "**Pledge Amendment**"). The Grantor authorizes the Collateral Agent to attach each Pledge Amendment to this Agreement.

7.6 Notices. All notices, requests and demands to or upon the Collateral Agent or the Grantor hereunder shall be effected in the manner provided for in **Section 8.2** of the Purchase Agreement; **provided**, that any such notice, request or demand to or upon the Grantor shall be addressed to the Company's notice address set forth in such **Section 8.2**.

7.7 Successors and Assigns. This Agreement shall be binding upon the successors and assigns of the Grantor and shall inure to the benefit of each Purchaser Party and their successors and assigns; **provided**, that no Grantor may assign, transfer or delegate any of its rights or obligations under this Agreement without the prior written consent of the Collateral Agent.

7.8 Counterparts. This Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Signature pages may be detached from multiple separate counterparts and attached to a single counterpart. Delivery of an executed signature page of this Agreement by facsimile transmission or by e-mail shall be as effective as delivery of a manually executed counterpart hereof.

7.9 Severability. Any provision of this Agreement being held illegal, invalid or unenforceable in any jurisdiction shall not affect any part of such provision not held illegal, invalid or unenforceable, any other provision of this Agreement or any part of such provision in any other jurisdiction. The parties shall endeavor in good-faith negotiations to replace the illegal, invalid or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the illegal, invalid or unenforceable provisions.

7.10 Survival. All representations and warranties made by the Grantor in the Transaction Documents (including any such representation or warranty made in or in connection with any amendment thereto) shall constitute representations and warranties made under this Agreement. All representations and warranties made by the Grantor under this Agreement (including those representations and warranties set forth in the immediately preceding sentence) shall be made or deemed to be made at and as of the date hereof (except those that are expressly made as of a specific date), shall survive the date here and shall not be waived by the execution and delivery of this Agreement, any investigation made by or on behalf of the Collateral Agent or any borrowing hereunder. Notwithstanding any termination of this Agreement, the indemnities to which the Purchaser Parties are entitled under the provisions of this Agreement or any other Transaction Document shall continue in full force and effect and shall protect the Purchaser Parties against events arising after such termination as well as before. This Agreement shall be reinstated at any time any payment of any Secured Obligation, in whole or in part, is rescinded or must otherwise be returned by the Collateral Agent upon the insolvency, bankruptcy or reorganization of the Grantor or other Company Party or otherwise, all as though such payment had not been made.

7.11 [Reserved]

7.12 Security Interest Absolute. All rights of the Collateral Agent hereunder, the grant of the security interest in the Collateral, and all obligations of the Grantor hereunder shall be absolute and unconditional irrespective of (a) any lack of validity or enforceability of any Transaction Document or any agreement with respect to any of the Secured Obligations or any other agreement or instrument relating to any of the foregoing, (b) any change in the time, manner or place of payment of, or in any other term of, all or any of the Secured Obligations, or any other amendment or waiver of or any consent to any departure from the Transaction Documents or any other agreement or instrument, (c) any exchange, release or non-perfection of any Lien on other collateral, or any release or amendment or waiver of or consent under or departure from any guarantee, securing or guaranteeing all or any of the Secured Obligations or (d) any other circumstance that might otherwise constitute a defense available to, or a discharge of, the Grantor in respect of the Secured Obligations or this Agreement (other than payment of the outstanding Secured Obligations).

7.13 Governing Law. This Agreement and the rights and obligations of the parties hereto shall be governed by, and construed and interpreted in accordance with, the law of the State of Delaware.

7.14 Waiver of Jury Trial. The parties hereto hereby irrevocably and unconditionally waive, to the fullest extent permitted by applicable Regulations, any right that they may have to trial by jury of any claim or cause of action or in any Action, directly or indirectly based upon or arising out of this Agreement (whether based on contract, tort or any other theory). Each party (a) certifies that no representative, agent or attorney of any other party has represented, expressly or otherwise, that such other parties would not, in the event of litigation, seek to enforce the foregoing waiver and (b) acknowledges that it and the other parties have been induced to enter into this Agreement and the other Transaction Documents by, among other things, the mutual waivers and certifications in this section.

[Signature Pages Follow]

IN WITNESS WHEREOF, each of the undersigned has caused this Agreement to be duly executed and delivered as of the date first above written.

CHROMOCELL THERAPEUTICS
CORPORATION as Company and Grantor

By: /s/ Francis Knuettel II
Name: Francis Knuettel II
Title: Interim CEO and CFO

ACCEPTED AND AGREED
as of the date first above written:

BALMORAL FINANCIAL GROUP LLC
as Collateral Agent

By: /s/ Ezra Friedberg
Name: Ezra Friedberg
Title: Manager

SIGNATURE PAGE TO SECURITY AGREEMENT CHROMOCELL THERAPEUTICS CORPORATION.

ANNEX 1 TO SECURITY AGREEMENT[1]

FORM OF PLEDGE AMENDMENT

This **Pledge Amendment**, dated as of _____ __, 20__, is delivered pursuant to **Section 7.5** of the Security Agreement, dated as of September 1, 2023, by Chromocell Therapeutics Corporation, a Delaware corporation (the "**Company**" and the "**Grantor**"), and the other Company Parties and Affiliates of the Company from time to time party thereto as Grantors in favor of Balmoral Financial Group LLC, as collateral agent for the Purchaser Parties referred to therein (the "**Security Agreement**"). Capitalized terms used herein without definition are used as defined in the Security Agreement.

The undersigned hereby agrees that this Pledge Amendment may be attached to the Security Agreement and that the Pledged Collateral listed on **Annex 1-A** to this Pledge Amendment shall be and become part of the Collateral referred to in the Security Agreement and shall secure all Secured Obligations of the undersigned.

The undersigned hereby represents and warrants that each of the representations and warranties contained in **Sections 3.1, 3.2, 3.5** and **3.10** of the Security Agreement is true and correct and as of the date hereof as if made on and as of such date.

[GRANTOR]

By: _____
Name:
Title:

[1] To be used for pledge of Additional Pledged Collateral by existing Grantor.

ANNEX 1-A

PLEDGED STOCK

ISSUER	CLASS	CERTIFICATE NO(S).	PAR VALUE	NUMBER OF SHARES, UNITS OR INTERESTS

PLEDGED DEBT INSTRUMENTS

ISSUER	DESCRIPTION OF DEBT	CERTIFICATE NO(S),	FINAL MATURITY	PRINCIPAL AMOUNT

ACKNOWLEDGED AND AGREED
as of the date first above written:

BALMORAL FINANCIAL GROUP LLC,
as Collateral Agent

By: _____
Name:
Title:

ANNEX 2 TO SECURITY AGREEMENT

FORM OF JOINDER AGREEMENT

This **Joinder Agreement**, dated as of _____ __, 20__, is delivered pursuant to **Section 7.5** of the Security Agreement, dated as of September 1, 2023 by Chromocell Therapeutics Corporation, a Delaware corporation (the "**Company**") and the Affiliates of the Company from time to time party thereto as Grantors in favor of Balmoral Financial Group LLC, a Delaware limited liability company, as lender and collateral agent for the Purchaser Parties referred to therein (the "**Security Agreement**"). Capitalized terms used herein without definition are used as defined in the Security Agreement.

By executing and delivering this Joinder Agreement, the undersigned, as provided in **Section 7.5** of the Security Agreement, hereby becomes a party to the Security Agreement as a Grantor thereunder with the same force and effect as if originally named as a Grantor therein and, without limiting the generality of the foregoing, as collateral security for the prompt and complete payment and performance when due (whether at stated maturity, by acceleration or otherwise) of the Secured Obligations of the undersigned, hereby mortgages, pledges and hypothecates to the Collateral Agent for the benefit of the Purchaser Parties, and grants to the Collateral Agent for the benefit of the Purchaser Parties a lien on and security interest in, all of its right, title and interest in, to and under the Collateral of the undersigned and expressly assumes all obligations and liabilities of a Grantor thereunder. The undersigned hereby agrees to be bound as a Grantor for the purposes of the Security Agreement.

The information set forth in **Annex 1** hereto is hereby added to the information set forth in the Disclosure Certificate. By acknowledging and agreeing to this Joinder Agreement, the undersigned hereby agree that this Joinder Agreement may be attached to the Purchase Agreement and that the Pledged Collateral listed on **Annex 1** to this Joinder Amendment shall be and become part of the Collateral referred to in the Security Agreement and shall secure all Secured Obligations of the undersigned.

The undersigned hereby represents and warrants that each of the representations and warranties contained in **Article III** of the Security Agreement (including by reference to the Purchase Agreement) applicable to it and its Subsidiaries is true and correct on and as the date hereof as if made on and as of such date.

IN WITNESS WHEREOF, the undersigned has caused this Joinder Agreement to be duly executed and delivered as of the date first above written.

[ADDITIONAL GRANTOR]

By: _____
Name:
Title:

ACKNOWLEDGED AND AGREED
as of the date first above written:

[THE GRANTOR PLEDGING
ADDITIONAL COLLATERAL]

By: _____
Name:
Title:

BALMORAL FINANCIAL GROUP LLC,
as Collateral Agent

By: _____
Name:
Title:

FORM OF
INTELLECTUAL PROPERTY SECURITY AGREEMENT

(see attached)

EXHIBIT 10.8

SUBORDINATION AND INTERCREDITOR AGREEMENT

This Subordination and Intercreditor Agreement (this "Agreement") dated as of September 1, 2023, by and among Balmoral Financial Group LLC, a Delaware limited liability company, in its capacity as senior lender and collateral agent ("Senior Lender"), the subordinated lenders listed on Schedule 1 hereto (in their roles as lenders, equity holders and otherwise, the "Subordinated Lenders") and Chromocell Therapeutics Corporation. (the "Company").

BACKGROUND

As a material inducement for Senior Lender to enter into that certain Securities Purchase Agreement, dated as of September 1, 2023 between the Company, the Senior Lender and any other purchasers signatory thereto (the "Purchase Agreement"), pursuant to which the Senior Lender and the purchasers signatory to the Purchase Agreement are purchasing, subject to the conditions outlined in such agreement, (a) Notes (the "Senior Notes") in the aggregate original principal amount of $250,000 for the purchase price of $250,000, as amended, modified or supplemented from time to time in accordance with its terms, each Subordinated Lender has agreed to enter into this Agreement to provide for the subordination of (i) the Subordinated Indebtedness (as defined below) to the Senior Indebtedness (as defined below) and (ii) the Liens (as defined below) in the assets of the Company granted to the Subordinated Lenders to the Liens in such assets of the Company granted to Senior Lender.

AGREEMENTS

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. Definitions.

1.1. General Terms. For purposes of this Agreement, the following terms shall have the following meanings:

"Bankruptcy Code" shall mean the United States Bankruptcy Code, 11 U.S.C. 101 et seq., as amended from time to time, any successor statute or rule promulgated thereto.

"Collateral" shall mean all of the property and interests in property, tangible or intangible, real or personal, now owned or hereafter acquired by Company in or upon which Senior Lender or each Subordinated Lender, as applicable, at any time has a Lien, and including, without limitation, all proceeds and products of such property and interests in property.

"Company" shall mean Company, its subsidiaries, and their respective successors and assigns.

"Creditor Agreements" shall mean, collectively, the Senior Lending Agreements and the Subordinated Lending Agreements.

"Creditors" shall mean, collectively, Senior Lender and the Subordinated Lenders and their respective successors and assigns.

"Default" shall have the meaning set forth in the Notes.

"Distribution" shall mean any payment, whether in cash, in kind, securities or any other property, or security for any such Distribution.

"Event" shall have the meaning set forth in Section 2.2(c) hereof.

"Holder of Subordinated Indebtedness" or "Subordinated Lender" shall mean each of the Subordinated Lenders listed on Schedule 1 hereto, and any other Person(s) at any time or in any manner acquiring any right or interest in any of the Subordinated Indebtedness, subject to the terms hereof, and any successor and assigns of such Person(s).

"Lien" shall mean any mortgage, deed of trust, pledge, hypothecation, assignment, deposit arrangement, security interest, encumbrance (including, but not limited to, easements, rights of way and the like), lien (statutory or other), security agreement or transfer intended as security including, without limitation, any conditional sale or other title retention agreement, the interest of a lessor under a capital lease or any financing lease having substantially the same economic effect as any of the foregoing.

"Person" shall mean an individual, a partnership, a corporation (including a business trust), a joint stock company, a trust, an unincorporated association, a joint venture, a limited liability company, a limited liability partnership or other entity, or a government or any agency, instrumentality or political subdivision thereof.

"Secured Lender Remedies" shall mean any action which results in the sale, foreclosure, realization upon, or a liquidation of any of the Collateral including, without limitation, the exercise or any of the rights or remedies of a "secured party" under Article 9 of the Uniform Commercial Code, such as, without limitation, the notification of account debtors as well as any other remedy available at law or equity, including, without limitation, the right to bring an action for specific performance.

"Senior Collateral" shall mean all of the property and interests in property, tangible or intangible, real or personal, now owned or hereafter acquired by Company in or upon which each Senior Lender at any time has a Lien, and including, without limitation, all proceeds and products of such property and interests in property.

"Senior Indebtedness" shall mean all obligations of any kind owed by Company to Senior Lender from time to time under or pursuant to this Agreement or any of the Senior Lending Agreements, including, without limitation, all principal, interest accruing thereon, charges, expenses, fees and other sums (including all interest, charges, expenses, fees and other sums accruing after commencement of any case, proceeding or other action relating to the bankruptcy, insolvency or reorganization of Company) chargeable to Company by Senior Lender, and reimbursement, indemnity or other obligations due and payable to Senior Lender. Senior Indebtedness shall continue to constitute Senior Indebtedness, notwithstanding the fact that such Senior Indebtedness or any claim for such Senior Indebtedness is subordinated, avoided or disallowed under the Bankruptcy Code or other applicable law. Senior Indebtedness shall also include any indebtedness of Company incurred in connection with a refinancing of the Senior Indebtedness under the Senior Lending Agreements if the terms and conditions of the agreements, documents and instruments related to such refinancing, taken as a whole, are not materially more onerous to the Holder of Subordinated Indebtedness than those set forth in the Senior Lending Agreements, as in effect on the date hereof.

"Senior Lender" shall have the meaning set forth in the introductory paragraph of this Agreement.

"Senior Lending Agreements" shall mean collectively, the Purchase Agreement, the Senior Notes and the other transaction documents, each as from time to time in effect as set forth in the Exhibit A attached hereto entitled Senior Lending Agreements.

"Subordinated Collateral" shall mean all of the property and interests in property, tangible or intangible, real or personal, now owned or hereafter acquired by Company in or upon which each Subordinated Lender at any time has a Lien, and including, without limitation, all proceeds and products of such property and interests in property.

"Subordinated Indebtedness" shall mean all principal, interest and other amounts payable or chargeable in connection with the Subordinated Notes.

"Subordinated Lending Agreements" shall mean, collectively, that certain Securities Purchase Agreement, dated as of April 17, 2023, by and among the Company and Subordinated Lenders, the Subordinated Notes and all other agreements, documents and instruments now or at any time hereafter executed and/or delivered by Company or any other person to, with or in favor of the Subordinated Lenders in connection therewith or related thereto, as all of the foregoing now exist or may hereafter be amended, modified, supplemented, extended, renewed, restated or replaced as set forth in the Exhibit B attached hereto entitled Subordinated Lending Agreements.

"Subordinated Notes" shall mean those certain senior secured notes issued by the Company to the Subordinated Lenders in the aggregate original principal amount of $393,807.99, dated April 17, 2023, together with any extensions thereof, securities issued in exchange therefor or modifications or amendments thereto or replacements and substitutions therefor.

1.2. Other Terms. Capitalized terms not otherwise defined herein shall have the meanings given to them in the Purchase Agreement.

1.3. Certain Matters of Construction. The terms "herein", "hereof" and "hereunder" and other words of similar import refer to this Agreement as a whole and not to any particular section, paragraph or subdivision. Any pronoun used shall be deemed to cover all genders. Wherever appropriate in the context, terms used herein in the singular also include the plural and vice versa. All references to statutes and related regulations shall include any amendments of same and any successor statutes and regulations. Except as expressly set forth herein, all references to any instruments or agreements, including, without limitation, references to any of the Creditor Agreements shall include any and all modifications or amendments thereto and any and all extensions or renewals thereof.

2 . Covenants. Company and each Holder of Subordinated Indebtedness hereby covenant that until the Senior Indebtedness shall have been indefeasibly paid in full and satisfied in cash and the Senior Notes shall have been cancelled, all in accordance with the terms thereof, each will comply with such of the following provisions as are applicable to it:

2.1. Amendments; Transfers. Each Holder of Subordinated Indebtedness covenants that it shall not amend or otherwise modify any of the Subordinated Lending Agreements and shall not transfer any of its rights with respect to any Subordinated Indebtedness.

2 . 2 . Subordination Provisions. To induce Senior Lender to enter into the Purchase Agreement and to make loans and advances thereunder, notwithstanding any other provision of the Subordinated Indebtedness to the contrary, except as specifically set forth herein, any Distribution with respect to the Subordinated Indebtedness is and shall be expressly junior and subordinated in right of payment to all amounts due and owing upon all Senior Indebtedness outstanding from time to time. Specifically, but not by way of limitation:

(a) Payments. Company shall make no Distribution on the Subordinated Indebtedness until such time as the Senior Indebtedness shall have been indefeasibly paid in full in cash and Senior Notes shall have been cancelled, all in accordance with the terms thereof.

(b) Limitation on Acceleration. No Holder of Subordinated Indebtedness shall be entitled to accelerate the maturity of the Subordinated Indebtedness, exercise any Secured Lender Remedies or commence any other action or proceeding to recover any amounts due or to become due with respect to Subordinated Indebtedness, provided, however, the foregoing limitation on acceleration shall not be applicable following (x) the occurrence of an Event (as to which Section 2.2 (c) shall apply) or (y) following the maturity or acceleration of all Senior Indebtedness.

(c) Prior Payment of Senior Indebtedness in Bankruptcy, etc. In the event of any insolvency or bankruptcy proceedings relative to Company or its property, or any receivership, liquidation, reorganization or other similar proceedings in connection therewith, or, in the event of any proceedings for voluntary liquidation, dissolution or other winding up of Company or distribution or marshalling of its assets or any composition with creditors of Company, whether or not involving insolvency or bankruptcy, or if Company shall cease its operations, call a meeting of its creditors or no longer do business as a going concern (each individually or collectively, an "Event"), then all Senior Indebtedness shall be indefeasibly paid in full and satisfied in cash and Senior Notes cancelled, all in accordance with the terms thereof before any Distribution shall be made on account of any Subordinated Indebtedness. Any such Distribution which would, but for the provisions hereof, be payable or deliverable in respect of the Subordinated Indebtedness, shall be paid or delivered directly to Senior Lender or its representatives, in the proportions in which they hold the same, until amounts owing upon Senior Indebtedness shall have been indefeasibly paid in full in cash and Senior Notes cancelled, all in accordance with the terms thereof.

To be free from doubt, the Subordinated Lenders will not (i) exercise or seek to exercise any rights or exercise any remedies with respect to any Collateral or (ii) institute any action or proceeding with respect to such rights or remedies, including without limitation, any action of foreclosure or (iii) contest, protest or object to any foreclosure proceeding, post-Petition financing (including debtor-in-possession financing), use of cash collateral or action brought by the Senior Lender or any other exercise by the Senior Lender of any rights and remedies under any Senior Lending Agreements. Subordinated Lenders will vote for and support, and will not object to or oppose, any sale or other disposition, including the proposed procedures of any such sale or other disposition, of any property securing all or any part of the Senior Notes free and clear of security interests, liens, or other claims of Subordinated Lender under Section 363 of the Bankruptcy Code or any other provision of the Bankruptcy Code, if Senior Lender has proposed or consented to such sale or disposition.

(d) Power of Attorney. To enable Senior Lender to assert and enforce its rights hereunder in any proceeding referred to in Section 2.2(c) or upon the happening of any Event, Senior Lender or any person whom it may designate is hereby irrevocably appointed attorney-in-fact for the Subordinated Lenders with full power to act in the place and stead of the Subordinated Lenders including the right to make, present, file and vote such proofs of claim against Company on account of all or any part of the Subordinated Indebtedness as Senior Lender may deem advisable and to receive and collect any and all dividends or other payments made thereon and to apply the same on account of the Senior Indebtedness. Each Subordinated Lender will execute and deliver to Senior Lender such instruments as may be required by Senior Lender to enforce any and all Subordinated Indebtedness, to effectuate the aforesaid power of attorney and to effect collection of any and all dividends or other payments which may be made at any time on account thereof, and the Subordinated Lenders hereby irrevocably appoint Senior Lender as the lawful attorney and agent of the Subordinated Lenders to execute financing statements on behalf of the Subordinated Lenders and hereby further authorizes Senior Lender to file such financing statements in any appropriate public office.

(e) Payments Held in Trust. Should any Distribution or the proceeds thereof, in respect of the Subordinated Indebtedness, be collected or received by the Subordinated Lenders or any Affiliate (as such term is defined in Rule 405 of Regulation C adopted by the U.S. Securities and Exchange Commission pursuant to the Securities Act of 1933, as amended) of the Subordinated Lenders at a time when the Subordinated Lenders are not permitted to receive any such Distribution or proceeds thereof including if same is collected or received when there is or would be after giving effect to such payment a default or an Event of Default under the Senior Notes, then the Subordinated Lenders will forthwith deliver, or cause to be delivered, the same to Senior Lender in precisely the form held by the Subordinated Lenders (except for any necessary endorsement) and until so delivered, the same shall be held in trust by the Subordinated Lenders, or any such Affiliate, as the property of Senior Lender and shall not be commingled with other property of the Subordinated Lenders or any such Affiliate.

(f) Subrogation. Subject to the prior payment in full in cash of the Senior Indebtedness and the cancellation of the Senior Notes, all in accordance with the terms thereof, to the extent that Senior Lender has received any Distribution on the Senior Indebtedness which, but for this Agreement, would have been applied to the Subordinated Indebtedness, the Subordinated Lenders shall be subrogated to the then or thereafter rights of Senior Lender including, without limitation, the right to receive any Distribution made on the Senior Indebtedness until the principal of, interest on and other charges due under the Subordinated Indebtedness shall be indefeasibly paid in full; and, for the purposes of such subrogation, no Distribution to Senior Lender to which the Subordinated Lenders would be entitled except for the provisions of this Agreement shall, as between Company, its creditors (other than Senior Lender) and the Subordinated Lenders, be deemed to be a Distribution by Company to or on account of Senior Indebtedness, it being understood that the provisions hereof are and are intended solely for the purpose of defining the relative rights of the Subordinated Lenders on the one hand, and Senior Lender on the other hand.

(g) Scope of Subordination. The provisions of this Agreement are solely to define the relative rights of any Holder of Subordinated Indebtedness and Senior Lender. Nothing in this Agreement shall impair, as between Company and the Subordinated Lenders the unconditional and absolute obligation of Company to punctually pay the principal, interest and any other amounts and obligations owing under the Subordinated Notes and Subordinated Lending Agreements in accordance with the terms thereof, subject to the rights of Senior Lender under this Agreement.

3. Security.

3.1. Acknowledgment of Lien. Each Creditor hereby agrees and acknowledges that the other Creditor has been granted a Lien upon the Collateral.

3.2. Priority; Senior Lender's Rights. Notwithstanding the order or time of attachment, or the order, time or manner of perfection, or the order or time of filing or recordation of any document or instrument, or other method of perfecting a Lien in favor of each Creditor in any Collateral and notwithstanding any conflicting terms or conditions which may be contained in any of the Creditor Agreements, the Liens upon the Collateral of Senior Lender have and shall have priority over the Liens upon the Collateral of the Subordinated Lenders and such Liens of the Subordinated Lenders are and shall be, in all respects, subject and subordinate to the Liens of Senior Lender therein to the full extent of the Senior Indebtedness outstanding from time to time. The Subordinated Lenders shall not take any action to foreclose, use or realize upon the Collateral until such time as the Senior Indebtedness shall have been indefeasibly paid in full in cash and the cancellation of the Senior Notes, all in accordance with the terms thereof.

All rights and interest of the Senior Lender hereunder, and all agreements and obligations of the Subordinated Lenders and the Company hereunder, shall remain in full force and effect irrespective of:

(a) any lack of validity or enforceability of any Senior Lending Agreement;

(b) any change in the time, manner or place of payment of, or in any other term of, all or any of the Senior Indebtedness, or any amendment or waiver or other modification, whether by course of conduct or otherwise, of the terms of the Senior Lending Agreement; or

(c) any other circumstances which otherwise might constitute a defense available to, or a discharge of, the Company in respect of the Senior Indebtedness, or of either the Subordinated Lenders or the Company in respect of this Agreement.

3.3. No Alteration of Priority. The Lien priorities provided in Section 3.2 hereof shall not be altered or otherwise affected by any amendment, modification, supplement, extension, renewal, restatement or refinancing of any Senior Indebtedness or the Subordinated Indebtedness, nor by any action or inaction which either Creditor may take or fail to take in respect of the Collateral.

3.4. Perfection. Each Creditor shall be solely responsible for perfecting and maintaining the perfection of its Lien in and to each item constituting the Collateral in which such Creditor has been granted a Lien. The foregoing provisions of this Agreement are intended solely to govern the respective lien priorities as between the Creditors and shall not impose on Senior Lender any obligations in respect of the disposition of proceeds of foreclosure on any Collateral which would conflict with prior perfected claims therein in favor of any other Person. Each Subordinated Lender agrees that it will not contest the validity, perfection, priority or enforceability of the Liens of Senior Lender in the Collateral and that as between Senior Lender and each Subordinated Lender, the terms of this Agreement shall govern even if part or all of the Senior Indebtedness or the Liens of Senior Lender securing payment and performance thereof are avoided, disallowed, set aside or otherwise invalidated in any judicial proceeding or otherwise.

3.5. Management of Collateral. Senior Lender pursuant to the Purchase Agreement and the Security Agreement, dated as of September 1, 2023 between the Company, the Senior Lender, shall have the exclusive right to manage, perform and enforce the terms of the Senior Lending Agreements with respect to the Collateral and to exercise and enforce all privileges and rights thereunder according to its discretion and exercise of its business judgment, including, without limitation, the exclusive right to enforce or settle insurance claims, take or retake control or possession of the Collateral and to hold, prepare for sale, process, sell, lease, dispose of, or liquidate the Collateral. In connection therewith, each Subordinated Lender waives any and all rights to affect the method or challenge the appropriateness of any action by Senior Lender.

3.6. Sale of Collateral. Notwithstanding anything to the contrary contained in any of the Creditor Agreements only Senior Lender shall have the sole right to restrict or permit, or approve or disapprove, the sale, transfer or other disposition of Collateral. The Subordinated Lenders will, immediately upon the request of Senior Lender, release or otherwise terminate its Liens upon the Collateral, to the extent such Collateral is sold or otherwise disposed of either by Senior Lender, its agents, or Company with the consent of Senior Lender, and the Subordinated Lenders will immediately deliver such release documents as Senior Lender may require in connection therewith. To this end, each of the Senior Lender and the Subordinated Lenders acknowledges and agrees that in the event the Senior Lender sells or otherwise disposes of the Senior Collateral, that all the proceeds therefrom may be used by the Senior Lender to satisfy the Senior Indebtedness and the Subordinated Lenders shall have no right or claim to such proceeds. Subject to the foregoing, each of Senior Lender and the Subordinated Lenders acknowledges and agrees that upon the occurrence of an Event, that they shall share in the Distributions relating to the Collateral on an in pari passu basis based on the respective amounts of the Senior Indebtedness and the Subordinated Indebtedness.

Subject to the foregoing, any money, property or securities realized upon the sale, disposition or other realization by the Senior Lender upon all or any part of the Collateral, shall be applied by the Senior Lender in the following order:

(a) First, to the payment in full of all costs and expenses (including, without limitation, attorneys' fees and disbursements) paid or incurred by the Senior Lender in connection with the such realization on the Collateral or the protection of its rights and interests therein;

(b) Second, to the payment in full of all Senior Indebtedness in such order as the Senior Lender may elect in its sole discretion;

(c) Third, to the payment in full of all Subordinated Indebtedness in such order as the Subordinated Lenders may elect in its sole discretion which are secured by such Collateral, which shall be paid to the Subordinated Lenders; and

(d) Fourth, to pay to the Company, or its representative or as a court of competent jurisdiction may direct, any surplus then remaining.

3 . 7 . Secured Lender Remedies. In no event shall the Subordinated Lenders exercise any Secured Lender Remedies until such time as the Senior Indebtedness shall have been indefeasibly paid in full in cash and the Senior Lending Agreements irrevocably terminated; nor shall Subordinated Lender join in, solicit any other person to, or act to cause the commencement of, any case involving Company under any state or federal bankruptcy or insolvency laws or seek the appointment of a receiver for the affairs or property of the Company until such time as the Senior Indebtedness shall have been indefeasibly paid in full in cash and the Senior Lending Agreements shall have been cancelled, all in accordance with the terms thereof. In the event the Subordinated Lenders shall receive any payment or distribution of any kind representing proceeds of any Collateral as to which its Lien in the Collateral is or is required to be subordinated to the Lien of Senior Lender before the obligations shall have been indefeasibly paid in full in cash and the Senior Notes cancelled, all in accordance with the terms thereof, such sums shall be held in trust by the Subordinated Lenders for the benefit and on account of Senior Lender and such amounts shall be paid to Senior Lender for application to the then unpaid obligations under the Senior Lending Agreements.

3 . 8 . Section 9-611 Notice and Waiver of Marshaling. The Subordinated Lenders and Senior Lender acknowledge that this Agreement shall constitute notice of their respective interests in the Collateral as provided by Section 9-611 of the Delaware Uniform Commercial Code and each hereby waive any right to compel any marshaling of any of the Collateral.

4. Miscellaneous.

4.1. Provisions of Subordinated Note. From and after the date hereof, Company and each Subordinated Lender shall cause each Subordinated Note to contain a provision to the following effect:

> "This [note] is subject to the Subordination and Intercreditor Agreement, dated as of September 1, 2023, among the [maker], the [payee] and [holder], under which this [note] and the [maker]'s obligations hereunder are subordinated in the manner set forth therein to the prior payment of certain obligations to the holders of Senior Indebtedness as defined therein."

Proof of compliance with the foregoing shall be promptly given to Senior Lender.

If requested by Senior Lender, each Holder of Subordinated Indebtedness shall transfer, assign and endorse over to Senior Lender the Subordinated Note, as collateral for the obligations hereunder of any Holders of Subordinated Indebtedness.

The Subordinated Notes will be held by Senior Lender in accordance with the terms of this Agreement.

4.2. Additional Agreements. In the event that the Senior Indebtedness is refinanced in full, the Subordinated Lenders agree at the request of such refinancing party to enter into a subordination and intercreditor agreement on terms substantially similar to this Agreement.

4.3. Survival of Rights. The right of Senior Lender to enforce the provisions of this Agreement shall not be prejudiced or impaired by any act or omitted act of Company or Senior Lender including forbearance, waiver, consent, compromise, amendment, extension, renewal, or taking or release of security in respect of any Senior Indebtedness or noncompliance by Company with such provisions, regardless of the actual or imputed knowledge of Senior Lender.

4.4. Bankruptcy Financing Issues. This Agreement shall continue in full force and effect after the filing of any petition ("Petition") by or against Company under the Bankruptcy Code and all converted or succeeding cases in respect thereof. All references herein to Company shall be deemed to apply to Company as debtor-in-possession and to a trustee for Company. If Company shall become subject to a proceeding under the Bankruptcy Code, and if Senior Lender shall desire to permit the use of cash collateral or to provide post-Petition financing, including debtor-in-possession financing, from Senior Lender to Company under the Bankruptcy Code, the Subordinated Lenders agree as follows: (1) adequate notice to the Subordinated Lenders shall be deemed to have been provided for such consent or post-Petition financing, including debtor-in-possession financing, if Subordinated Lender receives notice thereof three (3) business days (or such shorter notice as is given to Senior Lender) prior to the earlier of (a) any hearing on a request to approve such post-petition financing or (b) the date of entry of an order approving same and (2) no objection will be raised by the Subordinated Lenders to any such use of cash collateral or such post-Petition financing, including debtor-in-possession financing, from Senior Lender. Subordinated Lender agrees that it will not assist any other party in providing post-Petition financing, including debtor-in-possession financing, if the Senior Lender desires to provide post-Petition financing, including debtor-in-possession financing.

4.5. Bankruptcy Matters. Subordinated Lender agrees not to vote for and support any plan of reorganization that does not provide for the prior payment in full in cash of the Senior Notes or otherwise vote its claims or interests in such insolvency proceeding (including voting for, or supporting, confirmation of any plans of reorganization) in a manner that would be inconsistent with Subordinated Lender's covenants and agreements contained herein; provided that nothing herein shall prevent Subordinated Lender from voting in a manner consistent with how Senior Lender votes in such insolvency proceeding. Subordinated Lender agrees not to object to or oppose any plan of reorganization (or any procedures relating thereto) supported by the Senior Lender. Subordinated Lender will not (and hereby waives any right to) take any action to contest or challenge (or assist or support any other person in contesting or challenging), directly or indirectly, whether or not in any proceeding (including in any insolvency proceeding), the validity, priority, enforceability, or perfection of the Senior Notes or the Liens of Senior Lender in respect of any of the Collateral or the provisions of this Agreement. Subordinated Lender agrees that Subordinated Lender will not take any action that would interfere with any exercise of rights or remedies undertaken by Senior Lender under the Senior Lending Agreements. Subordinated Lender hereby waives any and all rights he may have as a junior creditor, equity holder or otherwise to contest, protest, object to, or interfere with the manner in which Senior Lender seeks to enforce its rights and remedies under the Senior Lending Agreements, including enforcement of its Liens in any Collateral.

4.6. Insurance Proceeds. Proceeds of the Collateral include insurance proceeds, and therefore, notwithstanding the terms set forth in the Senior Lending Agreements or Subordinated Lender Agreements, the priorities set forth in Section 3.2 govern the ultimate disposition of casualty insurance proceeds. Senior Lender, as the holder of a senior security interest on the Collateral insured shall have the sole and exclusive right, as against the Subordinated Lenders, to adjust settlement of insurance claims in the event of any covered loss, theft or destruction of such Collateral. All proceeds of such insurance shall inure to Senior Lender, to the extent of Senior Lender's claim, and the Subordinated Lenders shall cooperate (if necessary) in effecting the payment of insurance proceeds to Senior Lender. In the event Senior Lender, in its sole discretion or pursuant to agreement with Company, permits Company to utilize the proceeds of insurance to replace Collateral, the consent of Senior Lender thereto shall be deemed to include the consent of the Subordinated Lenders.

4.7. Receipt of Agreements. The Subordinated Lenders hereby acknowledge that they have delivered to Senior Lender a correct and complete copy of the Subordinated Lending Agreements as in effect on the date hereof. The Subordinated Lenders, solely for the purposes of this Agreement, hereby acknowledge receipt of a correct and complete copy of each of the Senior Lending Agreements as in effect on the date hereof.

4.8. No Amendment of Subordinated Lending Agreements. So long as the Senior Notes remain outstanding, neither Company nor any Holder of Subordinated Indebtedness shall enter into any amendment to or modification of any Subordinated Lending Agreements which relates to or affects the principal amount, interest rate, payment terms, or any other material covenant or agreement of Company thereunder or in respect thereof, without the prior written consent of Senior Lender.

4.9. Amendments to Senior Lending Agreements. Nothing contained in this Agreement, or in any other agreement or instrument binding upon any of the parties hereto, shall in any manner limit or restrict the ability of Senior Lender from increasing or changing the terms of the loans under the Senior Lending Agreements, or to otherwise waive, amend or modify the terms and conditions of the Senior Lending Agreements, in such manner as Senior Lender and Company shall mutually determine. Each Holder of Subordinated Indebtedness hereby consents to any and all such waivers, amendments, modifications and compromises, and any other renewals, extensions, indulgences, releases of collateral or other accommodations granted by Senior Lender to Company from time to time, and agrees that none of such actions shall in any manner affect or impair the subordination established by this Agreement in respect of the Subordinated Indebtedness.

4.10. Notice of Default and Certain Events. The Holders of Subordinated Indebtedness shall notify the Senior Lender of the occurrence of any of the following as applicable:

(a) the obtaining of actual knowledge of the occurrence of any default under the Subordinated Notes;

(b) the acceleration of any Subordinated Indebtedness by any Holder of Subordinated Indebtedness; or

(c) granting by any Holder of Subordinated Indebtedness of any waiver of any "default" or "event of default" under the Subordinated Lending Agreements.

The failure to give such notice shall not affect the subordination of the Subordinated Indebtedness or the relative Lien priorities as provided in this Agreement.

4.11. Notices. Any notice or other communication required or permitted pursuant to this Agreement shall be deemed given (a) when personally delivered to any officer of the party to whom it is addressed, (b) on the earlier of actual receipt thereof or three (3) days following posting thereof by certified or registered mail, postage prepaid, (c) upon actual receipt thereof when sent by a recognized overnight delivery service or (d) upon actual receipt thereof when sent by electronic mail to the email address set forth below with electronic confirmation of receipt, in each case addressed to each party at its email address set forth below or at such other email address as has been furnished in writing by a party to the other by like notice:

If to Senior Lender: Balmoral Financial Group LLC
106 Court Road, Suite 202, Baltimore, MD 21208
Attention: [*]
Telephone: [*]
Email: [*]

with a copy to:	Sullivan & Worcester LLP 1633 Broadway, 32nd Floor New York, New York 10019 Attention: David Danovitch, Esq. Telephone: 212-660-3060 Email: ddanovitch@sullivanlaw.com
If to Subordinated Lenders:	Balmoral Financial Group LLC 106 Court Road, Suite 202, Baltimore, MD 21208 Attention: [*] Telephone: [*] Email: [*]
with a copy to:	Sullivan & Worcester LLP 1633 Broadway, 32nd Floor New York, New York 10019 Attention: David Danovitch, Esq. Telephone: 212-660-3060 Email: ddanovitch@sullivanlaw.com
If to Company:	Chromocell Therapeutics Corporation 4400 Route 9 South, Suite 1000, Freehold NJ 07728 Attention: Frank Knuettel Telephone: 303-718-3108 Email: frank@chromocell.com
with a copy to:	Sullivan & Worcester LLP 1633 Broadway, 32nd Floor New York, New York 10019 Attention: David Danovitch, Esq. Telephone: 212-660-3060 Email: ddanovitch@sullivanlaw.com

4.12. Books and Records. The Subordinated Lenders shall (a) make notations on the books of the Subordinated Lenders beside all accounts or on other statements evidencing or recording any Subordinated Indebtedness to the effect that such Subordinated Indebtedness is subject to the provisions of this Agreement, (b) furnish Senior Lender, upon request from time to time, a statement of the account between each Subordinated Lender and Company and (c) give Senior Lender, upon its request, full and free access to each Subordinated Lender's books pertaining only to such accounts with the right to make copies thereof.

4.13. Binding Effect; Other. This Agreement shall be a continuing agreement, shall be binding upon and shall inure to the benefit of the parties hereto from time to time and their respective successors and assigns, shall be irrevocable and shall remain in full force and effect until the Senior Indebtedness shall have been satisfied or paid in full in cash and the Senior Notes shall have been cancelled, but shall continue to be effective, or be reinstated, as the case may be, if at any time payment, or any part thereof, of any amount paid by or on behalf of Company with regard to the Senior Indebtedness is rescinded or must otherwise be restored or returned upon the insolvency, bankruptcy, dissolution, liquidation or reorganization of Company, or upon or as a result of the appointment of a receiver, intervenor or conservator of, or trustee, custodian, or similar officer, for Company or any substantial part of its property, or otherwise, all as though such payments had not been made. No action which Senior Lender or Company may take or refrain from taking with respect to the Senior Indebtedness, including any amendments thereto, shall affect the provisions of this Agreement or the obligations of the Subordinated Lenders hereunder. Any waiver or amendment hereunder must be evidenced by a signed writing of the party to be bound thereby, and shall only be effective in the specific instance. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware. The headings in this Agreement are for convenience of reference only, and shall not alter or otherwise affect the meaning hereof.

5. Representations and Warranties.

(a) Each Subordinated Lender represents and warrants to Senior Lender that each Subordinated Lender is the holder of the Subordinated Indebtedness and Liens which secure or will secure the Subordinated Indebtedness. Each Subordinated Lender agrees that it shall not assign or transfer any of the Subordinated Indebtedness or Liens without (i) prior consent being given by Senior Lender and (ii) such assignment or transfer being made expressly subject to the terms of this Agreement. Each Subordinated Lender agrees upon Senior Lender's request to execute and file an amendment to any financing statement or mortgage, trust deed or other encumbrance now on file which covers Collateral to the effect that the same is subject to the terms of this Agreement, and agrees to so mark any extension of such financing statements, or any financing statement or mortgage, trust deed or other encumbrance filed by such Subordinated Lender on Collateral in the future. Each Subordinated Lender further warrants to Senior Lender that it has full right, power and authority to enter into this Agreement and, to the extent Subordinated Lender is an agent or trustee for other parties, that this Agreement shall fully bind all such other parties.

(b) Senior Lender represents and warrants to Subordinated Lender that Senior Lender is the holder of the Senior Indebtedness and Liens which secure or will secure the Senior Indebtedness. Senior Lender agrees that it shall not assign or transfer any of the Senior Indebtedness or Liens without (i) prior notice being given to the Subordinated Lenders and (ii) such assignment or transfer being made expressly subject to the terms and provisions of this Agreement. Senior Lender further warrants to the Subordinated Lenders that it has full right, power and authority to enter into this Agreement and, to the extent Senior Lender is an agent or trustee for other parties, that this Agreement shall fully bind all such other parties.

6 . Proceedings. ANY JUDICIAL PROCEEDING BROUGHT BY OR AGAINST THE SUBORDINATED LENDERS OR COMPANY WITH RESPECT TO THIS AGREEMENT OR ANY RELATED AGREEMENT MAY BE BROUGHT IN ANY COURT OF COMPETENT JURISDICTION IN STATE OF DELAWARE, UNITED STATES OF AMERICA, AND, BY EXECUTION AND DELIVERY OF THIS AGREEMENT EACH PARTY THERETO ACCEPTS FOR THEMSELVES AND IN CONNECTION WITH THEIR PROPERTIES, GENERALLY AND UNCONDITIONALLY, THE NON-EXCLUSIVE JURISDICTION OF THE AFORESAID COURTS, AND IRREVOCABLY AGREE TO BE BOUND BY ANY FINAL JUDGMENT RENDERED THEREBY IN CONNECTION WITH THIS AGREEMENT. NOTHING HEREIN SHALL AFFECT THE RIGHT TO SERVE PROCESS IN ANY MANNER PERMITTED BY LAW OR SHALL LIMIT THE RIGHT OF SENIOR LENDER TO BRING PROCEEDINGS AGAINST THE SUBORDINATED LENDERS OR COMPANY IN ANY COURTS OF ANY OTHER JURISDICTION. ANY JUDICIAL PROCEEDING BY A SUBORDINATED LENDER OR COMPANY AGAINST SENIOR LENDER INVOLVING, DIRECTLY OR INDIRECTLY, ANY MATTER OR CLAIM IN ANY WAY ARISING OUT OF, RELATED TO OR CONNECTED WITH THIS AGREEMENT OR ANY RELATED AGREEMENT, SHALL BE BROUGHT ONLY IN A COURT LOCATED IN THE COUNTY OF NEW CASTLE, STATE OF DELAWARE; PROVIDED THAT NOTWITHSTANDING THE FOREGOING, IF IN ANY JUDICIAL PROCEEDING BY OR AGAINST A SUBORDINATED LENDER OR COMPANY THAT IS BROUGHT IN ANY OTHER COURT SUCH COURT DETERMINES THAT SENIOR LENDER IS AN INDISPENSABLE PARTY, THE SUBORDINATED LENDER OR COMPANY SHALL BE ENTITLED TO JOIN OR INCLUDE EACH PARTY HERETO IN SUCH PROCEEDINGS IN SUCH OTHER COURT. THE SUBORDINATED LENDERS AND COMPANY WAIVE ANY OBJECTION TO JURISDICTION AND VENUE OF ANY ACTION INSTITUTED HEREUNDER AND SHALL NOT ASSERT ANY DEFENSE BASED ON LACK OF JURISDICTION OR VENUE OR BASED UPON FORUM NON CONVENIENS.

7 . Waiver of Jury Trial. EACH PARTY HERETO HEREBY EXPRESSLY WAIVES ANY RIGHT TO TRIAL BY JURY OF ANY CLAIM, DEMAND, ACTION OR CAUSE OF ACTION (A) ARISING UNDER THIS AGREEMENT OR ANY OTHER INSTRUMENT, DOCUMENT OR AGREEMENT EXECUTED OR DELIVERED IN CONNECTION HEREWITH, OR (B) IN ANY WAY CONNECTED WITH OR RELATED OR INCIDENTAL TO THE DEALINGS OF ANY CREDITOR OR COMPANY OR ANY OF THEM WITH RESPECT TO THIS AGREEMENT OR ANY OTHER INSTRUMENT, DOCUMENTS OR AGREEMENT EXECUTED OR DELIVERED BY THEM IN CONNECTION HEREWITH, OR THE TRANSACTIONS RELATED HERETO OR THERETO, IN EACH CASE WHETHER NOW EXISTING OR HEREAFTER ARISING, AND WHETHER SOUNDING IN CONTRACT OR TORT OR OTHERWISE AND EACH PARTY HERETO HEREBY AGREES AND CONSENTS THAT ANY CLAIM, DEMAND, ACTION OR CAUSE OF ACTION SHALL BE DECIDED BY COURT TRIAL WITHOUT JURY, AND THAT ANY OF THEM MAY FILE AN ORIGINAL COUNTERPART OR A COPY OF THIS SECTION WITH ANY COURT AS WRITTEN EVIDENCE OF THEIR CONSENT TO THE WAIVER OF THEIR RIGHT TO TRIAL BY JURY.

8 . Company Acknowledgement. Company agrees that (i) nothing contained in this Agreement shall be deemed to amend, modify, supersede or otherwise alter the terms of the respective agreements between Company and each Creditor and (ii) this Agreement is solely for the benefit of the Creditors and shall not give Company, its successors or assigns or any other person any rights vis-à-vis any Creditor.

9 . Counterparts; Facsimile. This Agreement may be executed by the parties hereto in two or more counterparts, each of which shall be deemed an original and all of which when taken together shall constitute one and the same agreement. Any signature delivered by a party by facsimile or electronic transmission shall be deemed to be an original signature hereto.

[Signatures are on the following pages]

IN WITNESS WHEREOF, the undersigned have entered into this Agreement as of this 1st day of September, 2023.

BALMORAL FINANCIAL GROUP LLC,
as Senior Lender

By: /s/ Ezra Friedberg
Name: Ezra Friedberg
Title: Manager

BALMORAL FINANCIAL GROUP LLC,
as Subordinated Lender

By: /s/ Ezra Friedberg
Name: Ezra Friedberg
Title: Manager

CHROMOCELL THERAPEUTICS CORPORATION,
as Company

By:/s/ Francis Knuettel II
Name: Francis Knuettel II
Title: Interim CEO and CFO

[CHROMOCELL THERAPEUTICS CORPORATION – SIGNATURE PAGE TO SUBORDINATION AND INTERCREDITOR AGREEMENT]

Schedule 1

List of Subordinated Lenders

Name
Boswell Prayer Ltd.
Motif Pharmaceuticals Ltd.
Aperture Healthcare Ventures Ltd.
MDB Merchants Park LLC
Balmoral Financial Group LLC
AME EQUITIES LLC
Chromocell Corp
Sargeant Capital
Hamilcar Portfolio
David Danovitch
John Riley
Nobi Investments
DB Investor

Exhibit A

Senior Lending Agreements

(See attached)

Exhibit B

Subordinated Lending Agreements

(See attached)

Exhibit 10.9

Form of Securities Purchase Agreement

THE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 OR THE SECURITIES LAWS OF ANY STATE OR ANY OTHER JURISDICTION. THERE ARE FURTHER RESTRICTIONS ON THE TRANSFERABILITY OF THE SECURITIES DESCRIBED HEREIN.

THE PURCHASE OF THE SECURITIES INVOLVES A HIGH DEGREE OF RISK AND SHOULD BE CONSIDERED ONLY BY PERSONS WHO CAN BEAR THE RISK OF THE LOSS OF THEIR ENTIRE INVESTMENT.

Chromocell Therapeutics Corporation
4400 Route 9 South, Suite 1000
Freehold, NJ 07728

Ladies and Gentlemen:

The undersigned understands that Chromocell Therapeutics Corporation, a corporation organized under the laws of Delaware (the "**Company**"), is offering an aggregate of up to (i) shares of its Series B Convertible Preferred Stock, par value $0.0001 per share (the "**Series B Shares**"), for a purchase price of $1,000 per Series B Share and (ii) shares (the "**Standby Shares**") of its common stock, par value $0.0001 per share (the "**Common Stock**"), in an amount to be determined pursuant to 4(c) hereof as additional consideration (such offering, the "**Offering**"). The Series B Shares, the shares of Common Stock issuable upon conversion of the Series B Shares, and the Standby Shares are collectively referred to herein as the "**Securities**."

The undersigned further understands that the Offering is being made without registration of the Securities under the Securities Act of 1933, as amended (the "**Securities Act**"), or any securities law of any state of the United States or of any other jurisdiction, and is being made only to "accredited investors" (as defined in Rule 501 of Regulation D under the Securities Act). Capitalized terms used but not defined in this Agreement (as defined below) have the meanings set forth in the Certificate of Designation (as defined below).

1. Subscription. Subject to the terms and conditions hereof, each of the undersigned, severally and not jointly, hereby irrevocably subscribes for the number of Series B Shares set forth on the respective signature page hereto for the subscription amount as stated thereon (the "**Subscription Amount**"), which is payable as described in Section 4 hereof. Each of the undersigned acknowledges that the Securities will be subject to restrictions on transfer as set forth in this securities purchase agreement (this "**Agreement**").

2. Acceptance of Subscription and Issuance of Securities. It is understood and agreed that the Company shall have the sole right, at its complete discretion, to accept or reject this subscription, in whole or in part, for any reason and that the same shall be deemed to be accepted by the Company only when it is signed by a duly authorized officer of the Company and delivered to the undersigned. Subscriptions need not be accepted in the order received. Notwithstanding anything in this Agreement to the contrary, the Company shall have no obligation to issue any of the Securities to any person who is a resident of a jurisdiction in which the issuance of Securities to such person would constitute a violation of the securities, "blue sky" or other similar laws of such jurisdiction (collectively referred to as the "**State Securities Laws**").

3. The Closing. The closing of the purchase and sale of the Series B Shares and the Standby Shares (the "**Closing**") shall occur substantially concurrently with the closing of the Company's initial public offering (the "**IPO**") of its Common Stock, pursuant to the Registration Statement on Form S-1 (File No. 333-269188) initially filed with the U.S. Securities and Exchange Commission on January 11, 2023, as amended to date.

4. Waiver Option; Standby Shares.

(a) *Waiver Option*

(i) Prior to the Closing, the Company may waive the undersigned's obligation to fund the Subscription Amount, in part or in full, as determined by the Company in its sole and absolute discretion (the "**Waiver Option**"). If the Waiver Option is exercised, the Subscription Amount set forth on each signature page hereto shall be reduced by the amount subject to the Waiver Option, applied on a pro rata basis based on each of the undersigned's Subscription Amounts relative to the aggregate amount subscribed for by all investors in the Offering, and the Company's obligation to issue Series B Shares shall be reduced accordingly.

(b) *Payment for the Series B Shares.* Payment for the Series B Shares shall be received by the Company from each of the undersigned by wire transfer of immediately available funds or other means approved by the Company at or prior to the Closing, in the amount as set forth on the respective signature page hereto. The Company shall deliver certificates representing the Series B Shares and Standby Shares to the undersigned at the Closing bearing an appropriate legend referring to the fact that the Securities were sold in reliance upon an exemption from registration under the Securities Act.

(c) *Standby Shares.* Following the Closing of the IPO and as additional consideration for entering into this Agreement, the Company shall deliver to each of the undersigned 50 Standby Shares for every $1,000 invested by such investor and set forth on the signature page hereto. The Standby Shares shall be issued upon close of the IPO regardless of whether the Company exercises the Waiver Option pursuant to Section 4(a) hereof, and any exercise of the Waiver Option shall not reduce the number of Standby Shares that the Company is obligated to issue.

5. Representations and Warranties of the Company. As of the Closing, the Company represents and warrants that:

(a) The Company has been duly incorporated and is validly existing under the laws of Delaware, with full power and authority to conduct its business as it is currently being conducted and to own its assets; and has secured any authorizations, approvals, permits and orders required by law for the conduct by the Company of its business as it is currently being conducted.

(b) The Series B Shares have been duly authorized and, when issued, delivered and paid for in the manner set forth in this Agreement, will be validly issued, fully paid and nonassessable.

(c) The shares of Common Stock issuable upon conversion of the Series B Shares purchased hereunder (the "**Conversion Shares**") will, upon issuance in accordance with the terms of the Certificate of Designation of Series B Convertible Preferred Stock of the Company ("**Certificate of Designation**"), be duly authorized, validly issued, fully paid and nonassessable.

(d) The Standby Shares have been duly authorized and, upon issuance, will be validly issued, fully paid and nonassessable.

6. Representations and Warranties of the Undersigned. Each of the undersigned, severally and not jointly, hereby represents and warrants to and covenants with the Company that:

(a) *General*.

(i) The undersigned has all requisite authority (and in the case of an individual, the capacity) to purchase the Series B Shares and Standby Shares, enter into this Agreement and to perform all the obligations required to be performed by the undersigned hereunder, and such purchase will not contravene any law, rule, or regulation binding on the undersigned or any investment guideline or restriction applicable to the undersigned.

(ii) The undersigned is a resident of the state set forth on the signature page hereto and is not acquiring the Securities as a nominee or agent or otherwise for any other person.

(iii) The undersigned will comply with all applicable laws and regulations in effect in any jurisdiction in which the undersigned purchases or sells Securities and obtain any consent, approval or permission required for such purchases or sales under the laws and regulations of any jurisdiction to which the undersigned is subject or in which the undersigned makes such purchases or sales, and the Company shall have no responsibility therefor.

(b) *Information Concerning the Company.*

(i) The undersigned understands and accepts that the purchase of the Securities involves various risks, including the risks outlined in this Agreement. The undersigned represents that it is able to bear any loss associated with an investment in the Securities.

(ii) The undersigned confirms that it is not relying on any communication (written or oral) of the Company or any of its affiliates, as investment or tax advice or as a recommendation to purchase the Securities. It is understood that information and explanations related to the terms and conditions of the Securities or otherwise by the Company or any of its affiliates shall not be considered investment or tax advice or a recommendation to purchase the Securities, and that neither the Company nor any of its affiliates is acting or has acted as an advisor to the undersigned in deciding to invest in the Securities. The undersigned acknowledges that neither the Company nor any of its affiliates has made any representation regarding the proper characterization of the Securities for purposes of determining the undersigned's authority to invest in the Securities.

(iii) The undersigned is familiar with the business and financial condition and operations of the Company. The undersigned has had access to such information concerning the Company and the Securities as it deems necessary to enable it to make an informed investment decision concerning the purchase of the Securities.

(iv) The undersigned understands that, unless the undersigned notifies the Company in writing to the contrary at or before the Closing, each of the undersigned's representations and warranties contained in this Agreement will be deemed to have been reaffirmed and confirmed as of the Closing, taking into account all information received by the undersigned.

(v) The undersigned understands that no federal or state agency has passed upon the merits or risks of an investment in the Securities or made any finding or determination concerning the fairness or advisability of this investment.

(c) *Non-Reliance.*

(i) The undersigned represents that it is not relying on (and will not at any time rely on) any communication (written or oral) of the Company, as investment advice or as a recommendation to purchase the Securities, it being understood that information and explanations related to the terms and conditions of the Securities and the other transaction documents, if any, shall not be considered investment advice or a recommendation to purchase the Securities.

(ii) The undersigned confirms that the Company has not (A) given any guarantee or representation as to the potential success, return, effect or benefit (either legal, regulatory, tax, financial, accounting or otherwise) of an investment in the Securities or (B) made any representation to the undersigned regarding the legality of an investment in the Securities under applicable legal investment or similar laws or regulations. In deciding to purchase the Securities, the undersigned is not relying on the advice or recommendations of the Company and the undersigned has made its own independent decision that the investment in the Securities is suitable and appropriate for the undersigned.

(d) *Status of Undersigned.*

(i) The undersigned has such knowledge, skill and experience in business, financial and investment matters that the undersigned is capable of evaluating the merits and risks of an investment in the Securities. With the assistance of the undersigned's own professional advisors, to the extent that the undersigned has deemed appropriate, the undersigned has made its own legal, tax, accounting, and financial evaluation of the merits and risks of an investment in the Securities and the consequences of this Agreement. The undersigned has considered the suitability of the Securities as an investment in light of its own circumstances and financial condition and the undersigned is able to bear the risks associated with an investment in the Securities, and it is authorized to invest in the Securities.

(ii) The undersigned is an "accredited investor" as defined in Rule 501(a) under the Securities Act. The undersigned agrees to furnish any additional information requested by the Company or any of its affiliates to assure compliance with applicable U.S. federal and state securities laws in connection with the purchase and sale of the Securities.

(e) *Restrictions on Transfer or Sale of Securities.*

(i) The undersigned is acquiring the Securities solely for the undersigned's own beneficial account, for investment purposes, and not with a view to, or for resale in connection with, any distribution of the Securities. The undersigned understands that the Securities have not been registered under the Securities Act or any State Securities Laws by reason of specific exemptions under the provisions thereof which depend in part upon the investment intent of the undersigned and of the other representations made by the undersigned in this Agreement. The undersigned understands that the Company is relying upon the representations and agreements contained in this Agreement (and any supplemental information) for the purpose of determining whether this transaction meets the requirements for such exemptions.

(ii) The undersigned understands that the Securities are "restricted securities" under applicable federal securities laws and that the Securities Act and the rules of the U.S. Securities and Exchange Commission (the "**Commission**") provide in substance that the undersigned may dispose of the Securities only pursuant to an effective registration statement under the Securities Act or an exemption from the registration requirements of the Securities Act, and the undersigned understands that, subject to Section 10 of this Agreement, the Company has no obligation or intention to register any of the Securities or the offering or sale thereof, or to take action so as to permit offers or sales pursuant to the Securities Act or an exemption from registration thereunder (including pursuant to Rule 144 thereunder). Accordingly, the undersigned understands that under the Commission's rules, the undersigned may dispose of the Securities only in "private placements" which are exempt from registration under the Securities Act, in which event the transferee will acquire "restricted securities," subject to the same limitations that apply to the Securities in the hands of the undersigned. Consequently, the undersigned understands that the undersigned must bear the economic risks of the investment in the Securities for an indefinite period of time.

(iii) The undersigned agrees: (A) that the undersigned will not sell, assign, pledge, give, transfer, or otherwise dispose of the Securities or any interest therein, or make any offer or attempt to do any of the foregoing, unless the transaction is registered under the Securities Act and complies with the requirements of all applicable State Securities Laws, or the transaction is exempt from the registration provisions of the Securities Act and all applicable requirements of State Securities Laws; (B) that the certificates representing the Securities will bear a legend making reference to the foregoing restrictions; and (C) that the Company and its affiliates shall not be required to give effect to any purported transfer of such Securities, except upon compliance with the foregoing restrictions.

(iv) The undersigned acknowledges that neither the Company nor any other person offered to sell the Securities to it by means of any form of general solicitation or advertising, including but not limited to: (A) any advertisement, article, notice or other communication published in any newspaper, magazine or similar media or broadcast over television or radio or (B) any seminar or meeting whose attendees were invited by any general solicitation or general advertising.

7. Conditions to Obligations of the Undersigned and the Company. The obligations of each of the undersigned to purchase and pay for the Securities set forth on the respective signature page hereto, and of the Company to sell those Securities, are subject to the satisfaction at or prior to the Closing of the following conditions precedent: the representations and warranties of the Company contained in Section 5 hereof and of the undersigned contained in Section 6 hereof shall be true and correct as of the Closing in all respects with the same effect as though such representations and warranties had been made on and as of the Closing, and the Certificate of Designation has been filed with the Secretary of State of the state of Delaware, substantially in the form attached hereto as Exhibit A.

8. Obligations Irrevocable. The obligations of the undersigned shall be irrevocable.

9. Legend. The certificates representing the Series B Shares and the Standby Shares sold pursuant to this Agreement will be imprinted with a legend in substantially the following form:

"THE SECURITIES EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION. THE SECURITIES MAY NOT BE OFFERED, SOLD, PLEDGED, OR OTHERWISE TRANSFERRED EXCEPT (1) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OR (2) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT, IN EACH CASE IN ACCORDANCE WITH ALL APPLICABLE STATE SECURITIES LAWS AND THE SECURITIES LAWS OF OTHER JURISDICTIONS, AND IN THE CASE OF A TRANSACTION EXEMPT FROM REGISTRATION, UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO IT THAT SUCH TRANSACTION DOES NOT REQUIRE REGISTRATION UNDER THE SECURITIES ACT OR SUCH OTHER APPLICABLE LAWS."

10. Resale Registration. The Company shall be obligation to file a resale registration statement (the "***Resale Registration Statement***") registering for resale the Registerable Securities (as defined below). Such Resale Registration Statement shall be filed with the SEC within 180 days following the closing date of the IPO; provided, however, that in the event the Company's underwriters in the IPO permit an earlier release on such lockup restrictions, the Company shall file the Resale Registration Statement as promptly as practicable after notification of earlier release on the lockup restrictions. The Company shall use its reasonable best efforts to obtain the effectiveness of the Resale Registration Statement as promptly as practicable following the filing thereof. "**Registrable Securities**" means (a) any Standby Shares and any Conversion Shares issued or issuable upon conversion of the Series B Shares, and (b) any securities issued or issuable upon any stock split, dividend or other distribution, recapitalization or similar event, or any price adjustment as a result of such stock splits, reverse stock splits or similar events with respect to any of the securities referenced in clause (a) above (it being understood that, for purposes of this Agreement, a person shall be deemed to be a holder of Registrable Securities whenever such Person has the right to then acquire or obtain from the Company any Registrable Securities, whether or not such acquisition has actually been effected, and without regard to Beneficial Ownership Limitations set forth in the Certificate of Designation). As to any particular Registrable Securities, such securities shall cease to be Registrable Securities when (i) the Commission has declared the Resale Registration Statement covering such securities effective and such securities have been disposed of pursuant to such effective Registration Statement, (ii) such securities are sold under circumstances in which all of the applicable conditions of Rule 144 under the Securities Act are met, and (iii) such securities become eligible for sale pursuant to Rule 144 without volume or manner-of-sale restrictions and without the requirement for the Company to be in compliance with the current public information requirement under Rule 144(c)(1), as set forth in a written opinion letter to such effect, addressed, delivered and reasonably acceptable to the applicable transfer agent and the holders of such securities.

11. Waiver, Amendment. Neither this Agreement nor any provisions hereof shall be modified, changed, discharged or terminated except by an instrument in writing, signed by the party against whom any waiver, change, discharge or termination is sought.

12. Assignability. Neither this Agreement nor any right, remedy, obligation or liability arising hereunder or by reason hereof shall be assignable by either the Company or the undersigned without the prior written consent of the other party, and any attempted assignment without such prior written consent shall be void.

13. Waiver of Jury Trial. THE UNDERSIGNED IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY WITH RESPECT TO ANY LEGAL PROCEEDING ARISING OUT OF THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT.

14. Submission to Jurisdiction. With respect to any suit, action, or proceeding relating to any offers, purchases, or sales of the Securities by the undersigned ("**Proceedings**"), the undersigned irrevocably submits to the jurisdiction of the federal and state courts located in the Borough of Manhattan in New York City, which submission shall be exclusive, unless none of such courts has lawful jurisdiction over such Proceedings.

15. Governing Law. This Agreement shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflict of laws thereof. All legal proceedings concerning the interpretation, enforcement and defense of the transactions contemplated by this Agreement (whether brought against a party hereto or its respective Affiliates, directors, officers, shareholders, employees or agents) shall be commenced in the state and federal courts sitting in the City of New York, Borough of Manhattan (the "**New York Courts**"). The Company and the undersigned each irrevocably submit to the exclusive jurisdiction of the New York Courts for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of such New York Courts, or such New York Courts are improper or inconvenient venue for such proceeding. The Company and the undersigned hereby irrevocably waive personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agree that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by applicable law. The Company and the undersigned hereby irrevocably waive, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby. If any party shall commence an action or proceeding to enforce any provisions of this Agreement, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorneys' fees and other costs and expenses incurred in the investigation, preparation and prosecution of such action or proceeding.

16. Section and Other Headings. The section and other headings contained in this Agreement are for reference purposes only and shall not affect the meaning or interpretation of this Agreement.

17. Counterparts. This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed to be an original and all of which together shall be deemed to be one and the same agreement.

18. Notices. All notices and other communications provided for herein shall be in writing and shall be deemed to have been duly given if delivered personally or sent by registered or certified mail, return receipt requested, postage prepaid to the following addresses (or such other address as either party shall have specified by notice in writing to the other):

If to the Company:	4400 Route 9 South, Suite 1000 Freehold, NJ 07728S E-mail: frank@chromocell.com Attention: Chief Financial Officer
with a copy to:	Sullivan & Worcester E-mail: ddanovitch@sullivanlaw.com; aschleicher@sullivanlaw.com Attention: David Danovitch; Aaron Schleicher
If to Purchasers:	As set forth on the respective signature page of each such purchaser.

19. Binding Effect. The provisions of this Agreement shall be binding upon and accrue to the benefit of the parties hereto and their respective heirs, legal representatives, successors, and assigns.

20. Survival. All representations, warranties and covenants contained in this Agreement shall survive (i) the acceptance of the subscription by the Company and the Closing, (ii) changes in the transactions, documents and instruments which are not material or which are to the benefit of the undersigned, and (iii) the death or disability of the undersigned.

21. Notification of Changes. The undersigned hereby covenants and agrees to notify the Company upon the occurrence of any event prior to the closing of the purchase of the Securities pursuant to this Agreement which would cause any representation, warranty, or covenant of the undersigned contained in this Agreement to be false or incorrect.

22. Severability. If any term or provision of this Agreement is invalid, illegal, or unenforceable in any jurisdiction, such invalidity, illegality, or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the undersigned has executed this Agreement as of , 2023.

PURCHASER (if any individual):

_____
Name:

PURCHASER (if an entity):

_____
Legal Name of Entity

By_____

Name:
Title:

State/Country of Domicile or Formation: _____

Contact Information for Notices: _____

Number of Series B Shares to be Purchased: _____

Subscription Amount for Series B Shares: $_____

Allocation of Standby Shares: _____

The offer to purchase the number of Securities as set forth above is confirmed and accepted by the Company.

CHROMOCELL THERAPEUTICS CORPORATION

By: _____

Name: Francis Knuettel II
Title: Chief Financial Officer

EXHIBIT A

Certificate of Designation

(attached)

FORM OF REGISTRATION RIGHTS AGREEMENT

This **Registration Rights Agreement** (this "**Agreement**") is made and entered into as of September [*], 2023, between Chromocell Therapeutics Corporation, a Delaware corporation (the "**Company**"), and the purchasers identified on the signature pages hereto (each a "**Purchaser**").

This Agreement is made pursuant to the Securities Purchase Agreement, dated as of the date hereof, between the Company and each of the purchasers signatory thereto (the "**Purchase Agreement**").

The Company and the Purchaser hereby agrees as follows:

1. **Definitions**.

Capitalized terms used and not otherwise defined herein that are defined in the Purchase Agreement shall have the meanings given such terms in the Purchase Agreement. As used in this Agreement, the following terms shall have the following meanings:

"**Advice**" shall have the meaning set forth in Section 6(d).

"**Effectiveness Date**" means, with respect to the Initial Registration Statement required to be filed hereunder, the sixtieth (60^{th}) calendar day following the Filing Date, **provided, however**, that in the event the Company is notified by the Commission that the Registration Statement will not be reviewed or is no longer subject to further review and comments, the Effectiveness Date as to such Registration Statement shall be the fifth (5th) Trading Day following the date on which the Company is so notified if such date precedes the dates otherwise required above, **provided, further**, if such Effectiveness Date falls on a day that is not a Trading Day, then the Effectiveness Date shall be the next succeeding Trading Day.

"**Effectiveness Period**" shall have the meaning set forth in Section 2(a).

"**Event**" shall have the meaning set forth in Section 2(d).

"**Event Date**" shall have the meaning set forth in Section 2(d).

"**Filing Date**" means, with respect to the Initial Registration Statement required hereunder, the one hundred and eightieth (180^{th}) calendar day after the date of the final prospectus supplement used to sell shares of Common Stock in the Company's initial public offering of its Common Stock, pursuant to the Registration Statement on Form S-1 (File No. 333-269188) initially filed with the U.S. Securities and Exchange Commission on January 11, 2023, as amended to date, and, with respect to any additional Registration Statements which may be required pursuant to Section 2(c) or Section 3(c), the earliest practical date on which the Company is permitted by SEC Guidance to file such additional Registration Statement related to the Registrable Securities.

"**Holder**" or "**Holders**" means the holder or holders, as the case may be, from time to time of Registrable Securities.

"I**ndemnified Party**" shall have the meaning set forth in Section 5(c).

"**Indemnifying Party**" shall have the meaning set forth in Section 5(c).

"**Initial Registration Statement**" means the initial Registration Statement filed pursuant to this Agreement.

"**Losses**" shall have the meaning set forth in Section 5(a).

"**Prospectus**" means the prospectus included in a Registration Statement (including, without limitation, a prospectus that includes any information previously omitted from a prospectus filed as part of an effective registration statement in reliance upon Rule 430A promulgated by the Commission pursuant to the Securities Act), as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by a Registration Statement, and all other amendments and supplements to the Prospectus, including post-effective amendments, and all material incorporated by reference or deemed to be incorporated by reference in such Prospectus.

"**Registrable Securities**" means, as of any date of determination, (a) all of the shares of Common Stock (including Standby Shares) then issued and issuable upon conversion in full of the shares of Preferred Stock (assuming on such date the shares of Preferred Stock are converted in full without regard to any conversion limitations therein), (b) all shares of Common Stock issued and issuable as dividends on the shares of Preferred Stock assuming all such payments are made in shares of Common Stock and the shares of Preferred Stock are held until maturity, (c) all of the shares of Common Stock then issued and issuable in connection with any anti-dilution or any remedies provisions of the shares of Preferred Stock (without giving effect to any limitations on conversion therein), and (d) any securities issued or then issuable upon any stock split, dividend or other distribution, recapitalization or similar event with respect to the foregoing; **provided, however**, that any such Registrable Securities shall cease to be Registrable Securities (and the Company shall not be required to maintain the effectiveness of any, or file another, Registration Statement hereunder with respect thereto) for so long as (a) a Registration Statement with respect to the sale of such Registrable Securities is declared effective by the Commission under the Securities Act and such Registrable Securities have been disposed of by the Holders in accordance with such effective Registration Statement, (b) such Registrable Securities have been previously sold in accordance with Rule 144, or (c) such securities become eligible for resale without volume or manner-of-sale restrictions and without current public information pursuant to Rule 144 as set forth in a written opinion letter to such effect, addressed, delivered and acceptable to the Transfer Agent and the affected Holders (assuming that such securities and any securities issuable upon exercise, conversion or exchange of which, or as a dividend upon which, such securities were issued or are issuable, were at no time held by any Affiliate of the Company), as reasonably determined by the Company, upon the advice of counsel to the Company.

"**Registration Statement**" means any registration statement required to be filed hereunder pursuant to Section 2(a) and any additional registration statements contemplated by Section 2 or Section 3(c), including (in each case) the Prospectus, amendments and supplements to any such registration statement or Prospectus, including pre- and post-effective amendments, all exhibits thereto, and all material incorporated by reference or deemed to be incorporated by reference in any such registration statement.

"**Rule 415**" means Rule 415 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

"**Rule 424**" means Rule 424 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

"**Selling Stockholder Questionnaire**" shall have the meaning set forth in Section 3(a).

"**SEC Guidance**" means (i) any publicly-available written or oral guidance of the Commission staff, or any comments, requirements or requests of the Commission staff and (ii) the Securities Act.

2. **Registration.**

(a) No later than the Filing Date, the Company shall file with the Commission the Initial Registration Statement relating to the resale by the Holders of all (or such other number as the Commission will permit) of the Registrable Securities. If Form S-3 is not available for the registration of the resale of Registrable Securities hereunder, the Company shall (i) register the resale of the Registrable Securities on another appropriate form and (ii) undertake to register the Registrable Securities on Form S-3 as soon as such form is available; **provided,** that the Company shall maintain the effectiveness of the Registration Statement then in effect until such time as a Registration Statement on Form S-3 covering the Registrable Securities has been declared effective by the Commission. Subject to the terms of this Agreement, the Company shall use its best efforts to cause a Registration Statement filed under this Agreement (including, without limitation, under Section 3(c)) to be declared effective under the Securities Act within forty-five (45) days after the filing thereof, but in any event no later than the applicable Effectiveness Date, and shall use its best efforts to keep such Registration Statement continuously effective under the Securities Act until all Registrable Securities covered by such Registration Statement (i) have been sold, thereunder or pursuant to Rule 144, or (ii) may be sold without volume or manner-of-sale restrictions pursuant to Rule 144 and without the requirement for the Company to be in compliance with the current public information requirement under Rule 144, as determined by the counsel to the Company pursuant to a written opinion letter to such effect, addressed and acceptable to the Transfer Agent and the affected Holder (the "**Effectiveness Period**"). The Company shall telephonically request effectiveness of a Registration Statement as of 5:00 p.m. Eastern Time on a Trading Day. The Company shall immediately notify the Holder via facsimile or by e-mail of the effectiveness of a Registration Statement on the same Trading Day that the Company telephonically confirms effectiveness with the Commission, which shall be the date requested for effectiveness of such Registration Statement. The Company shall, by 9:30 a.m. Eastern Time on the Trading Day after the effective date of such Registration Statement, file a final Prospectus with the Commission as required by Rule 424, if required under the rules and regulations promulgated under the Securities Act. Failure to so notify the Holders within one (1) Trading Day of such notification of effectiveness or failure to file a final Prospectus as foresaid, if required, shall be deemed an Event under Section 2(g).

(b) Notwithstanding the registration obligations set forth in Section 2(a), if the Commission informs the Company that all of the Registrable Securities cannot, as a result of the application of Rule 415, be registered for resale as a secondary offering on a single registration statement, the Company agrees to promptly inform each of the Holders thereof and use its best efforts to file amendments to the Initial Registration Statement as required by the Commission, covering the maximum number of Registrable Securities permitted to be registered by the Commission, on Form S-3 or such other form available to register for resale the Registrable Securities as a secondary offering, subject to the provisions of Section 2(e); with respect to filing on Form S-3 or other appropriate form, and subject to the provisions of Section 2(d) with respect to the payment of liquidated damages; **provided, however**, that prior to filing such amendment, the Company shall be obligated to use diligent efforts to advocate with the Commission for the registration of all of the Registrable Securities in accordance with the SEC Guidance, including without limitation, Compliance and Disclosure Interpretation 612.09.

(c) Notwithstanding any other provision of this Agreement and subject to the payment of liquidated damages pursuant to Section 2(d), if the Commission or any SEC Guidance sets forth a limitation on the number of Registrable Securities permitted to be registered on a particular Registration Statement as a secondary offering (and notwithstanding that the Company used diligent efforts to advocate with the Commission for the registration of all or a greater portion of Registrable Securities), unless otherwise directed in writing by a Holder as to its Registrable Securities, the number of Registrable Securities to be registered on such Registration Statement will be reduced as follows:

i. first, the Company shall reduce or eliminate any securities to be included by any Person other than a Holder; and

ii. second, the Company shall reduce Registrable Securities represented by Preferred Conversion Shares and Standby Shares (applied, in the case that some Preferred Conversion Shares and Standby Shares may be registered, to the Holders on a pro rata basis based on the total number of unregistered Preferred Conversion Shares and Standby Shares held by such Holders).

In the event of a cutback hereunder, the Company shall give the Holder at least five (5) Trading Days prior written notice along with the calculations as to such Holder's allotment. In the event the Company amends the Initial Registration Statement in accordance with the foregoing, the Company will use its best efforts to file with the Commission, as promptly as allowed by Commission or SEC Guidance provided to the Company or to registrants of securities in general, one or more registration statements on Form S-3 or such other form available to register for resale those Registrable Securities that were not registered for resale on the Initial Registration Statement, as amended.

(d) **Provided,** that no event of default exists under the Purchase Agreement or any of the other Transaction Documents, if: (i) the Initial Registration Statement is not filed on or prior to the Filing Date (if the Company files the Initial Registration Statement without providing the Holders the opportunity to review and comment on the same as required by Section 3(a) herein, the Company shall be deemed to have not satisfied this clause (i)) or (ii) the Company fails to file with the Commission a request for acceleration of a Registration Statement in accordance with Rule 461 promulgated by the Commission pursuant to the Securities Act, within five (5) Trading Days of the date that the Company is notified (orally or in writing, whichever is earlier) by the Commission that such Registration Statement will not be "reviewed" or will not be subject to further review, or (iii) prior to the effective date of a Registration Statement, the Company fails to file a pre-effective amendment and otherwise respond in writing to comments made by the Commission in respect of such Registration Statement within ten (10) calendar days after the receipt of comments by or notice from the Commission that such amendment is required in order for such Registration Statement to be declared effective, or (iv) a Registration Statement registering for resale all of the Registrable Securities is not declared effective by the Commission by the Effectiveness Date of the Initial Registration Statement, or (v) after the effective date of a Registration Statement, such Registration Statement ceases for any reason to remain continuously effective as to all Registrable Securities included in such Registration Statement, or the Holders are otherwise not permitted to utilize the Prospectus therein to resell such Registrable Securities, for more than ten (10) consecutive calendar days or more than an aggregate of fifteen (15) calendar days (which need not be consecutive calendar days) during any 12-month period (any such failure or breach being referred to as an "**Event**", and for purposes of clause (i) thirty (30) calendar days after the date on which such Event occurs, and for purpose of clause (ii), the date on which such five (5) Trading Day period is exceeded, and for purpose of clause (iii) the date which such fifteen (15) calendar day period is exceeded, and for purpose of clause (v) the date on which such ten (10) or fifteen (15) calendar day period, as applicable, is exceeded being referred to as "**Event Date**"), then, in addition to any other rights the Holders may have hereunder or under applicable law, on each such Event Date and on each monthly anniversary of each such Event Date thereafter (if the applicable Event shall not have been cured by such date) or any pro rata portion thereof, until the applicable Event is cured or sixty (60) calendar days after the applicable Event Date, whichever occurs first, the Company shall pay to each Holder an amount in cash, as partial liquidated damages and not as a penalty, equal to the product of two percent (2.0%) multiplied by the Subscription Amount paid by such Holder for the Shares of Preferred Stock pursuant to the Purchase Agreement; **provided,** that the maximum amount payable thereunder shall not exceed 4% of such Subscription Amount paid by such Holder. If the Company fails to pay any partial liquidated damages pursuant to this Section in full within seven (7) days after the date payable, the Company will pay interest thereon at a rate of eighteen percent (18%) per annum (or such lesser maximum amount that is permitted to be paid by applicable law) to the Holder, accruing daily from the date such partial liquidated damages are due until such amounts, plus all such interest thereon, are paid in full.

(e) Notwithstanding anything to the contrary contained herein but subject to comments by the Commission, in no event shall the Company be permitted to name any Holder or affiliate of a Holder as an underwriter without the prior written consent of such Holder.

3. **Registration Procedures.**

In connection with the Company's registration obligations hereunder, the Company shall have the following obligations:

(a) Not less than three (3) Trading Days prior to the filing of each Registration Statement and not less than one (1) Trading Day prior to the filing of any related Prospectus or any amendment or supplement thereto (including any document that would be incorporated or deemed to be incorporated therein by reference), the Company shall (i) furnish to the Holder copies of all such documents proposed to be filed, which documents (other than those incorporated or deemed to be incorporated by reference) will be subject to the review of the Holders, and (ii) cause its officers and directors, counsel and independent registered public accountants to respond to such inquiries as shall be necessary, in the reasonable opinion of respective counsel to the Holder, to conduct a reasonable investigation within the meaning of the Securities Act. Notwithstanding the above, the Company shall not be obligated to provide the Holders advance copies of any universal registration statement registering securities in addition to those required hereunder, or any Prospectus prepared thereto. The Company shall not file a Registration Statement or any such Prospectus or any amendments or supplements thereto to which the Holders of a majority of the Registrable Securities shall reasonably object in good faith, **provided,** that, the Company is notified of such objection in writing no later than five (5) Trading Days after the Holders have been so furnished copies of a Registration Statement or one (1) Trading Day after the Holder has been furnished copies of any related Prospectus or amendments or supplements thereto. Each Holder agrees to furnish to the Company a completed questionnaire in the form attached to this Agreement as Annex A (a " **Selling Stockholder Questionnaire**") on a date that is not less than two (2) Trading Days prior to the Filing Date or by the end of the fourth (4^{th}) Trading Day following the date on which such Holder receives draft materials in accordance with this Section.

(b) (i) The Company shall prepare and file with the Commission such amendments, including post-effective amendments, to a Registration Statement and the Prospectus used in connection therewith as may be necessary to keep a Registration Statement continuously effective as to the applicable Registrable Securities for the Effectiveness Period and prepare and file with the Commission such additional Registration Statements in order to register for resale under the Securities Act all of the Registrable Securities, (ii) cause the related Prospectus to be amended or supplemented by any required Prospectus supplement (subject to the terms of this Agreement), and, as so supplemented or amended, to be filed pursuant to Rule 424, (iii) respond as promptly as reasonably practicable to any comments received from the Commission with respect to a Registration Statement or any amendment thereto and provide as promptly as reasonably practicable to the Holders true and complete copies of all correspondence from and to the Commission relating to a Registration Statement (**provided**, that the Company shall excise any information contained therein which would constitute material non-public information regarding the Company or any of its Subsidiaries), and (iv) comply in all material respects with the applicable provisions of the Securities Act and the Exchange Act with respect to the disposition of all Registrable Securities covered by a Registration Statement during the applicable period in accordance (subject to the terms of this Agreement) with the intended methods of disposition by the Holders thereof set forth in such Registration Statement as so amended or in such Prospectus as so supplemented.

(c) If during the Effectiveness Period, the number of Registrable Securities at any time exceeds 100% of the number of shares of Common Stock then registered in a Registration Statement, then the Company shall file as soon as reasonably practicable, but in any case, prior to the applicable Filing Date, an additional Registration Statement covering the resale by the Holders of not less than the number of such Registrable Securities.

(d) The Company shall notify the Holders of Registrable Securities to be sold (which notice shall, pursuant to clauses (iii) through (vi) hereof, be accompanied by an instruction to suspend the use of the Prospectus until the requisite changes have been made) as promptly as reasonably possible (and, in the case of (i)(A) below, not less than one (1) Trading Day prior to such filing) and (if requested by any such Person) confirm such notice in writing no later than one (1) Trading Day following the day (i)(A) when a Prospectus or any Prospectus supplement or post-effective amendment to a Registration Statement is proposed to be filed, (B) when the Commission notifies the Company whether there will be a "review" of such Registration Statement and whenever the Commission comments in writing on such Registration Statement, and (C) with respect to a Registration Statement or any post-effective amendment, when the same has become effective, (ii) of any request by the Commission or any other federal or state governmental authority for amendments or supplements to a Registration Statement or Prospectus or for additional information, (iii) of the issuance by the Commission or any other federal or state governmental authority of any stop order suspending the effectiveness of a Registration Statement covering any or all of the Registrable Securities or the initiation of any Proceedings for that purpose, (iv) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities for sale in any jurisdiction, or the initiation or threatening of any Proceeding for such purpose, (v) of the occurrence of any event or passage of time that makes the financial statements included in a Registration Statement ineligible for inclusion therein or any statement made in a Registration Statement or Prospectus or any document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires any revisions to a Registration Statement, Prospectus or other documents so that, in the case of a Registration Statement or the Prospectus, as the case may be, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, and (vi) of the occurrence or existence of any pending corporate development with respect to the Company that the Company believes may be material and that, in the determination of the Company, makes it not in the best interest of the Company to allow continued availability of a Registration Statement or Prospectus, **provided, however**, in no event shall any such notice contain any information which would constitute material, non-public information regarding the Company or any of its Subsidiaries.

(e) The Company shall use its best efforts to avoid the issuance of, or, if issued, obtain the withdrawal of (i) any order stopping or suspending the effectiveness of a Registration Statement, or (ii) any suspension of the qualification (or exemption from qualification) of any of the Registrable Securities for sale in any jurisdiction, at the earliest practicable moment.

(f) The Company shall furnish to each Holder, without charge, at least one conformed copy of each such Registration Statement and each amendment thereto, including financial statements and schedules, all documents incorporated or deemed to be incorporated therein by reference to the extent requested by such Person, and all exhibits to the extent requested by such Person (including those previously furnished or incorporated by reference) promptly after the filing of such documents with the Commission; **provided,** that any such item which is available on the EDGAR system (or successor thereto) need not be furnished in physical form.

(g) Subject to the terms of this Agreement, the Company hereby consents to the use of such Prospectus and each amendment or supplement thereto by each of the selling Holders in connection with the offering and sale of the Registrable Securities covered by such Prospectus and any amendment or supplement thereto, except after the giving of any notice pursuant to Section 3(d).

(h) The Company shall cooperate with any broker-dealer through which a Holder proposes to resell its Registrable Securities in effecting a filing with the FINRA Corporate Financing Department pursuant to FINRA Rule 5110, as requested by any such Holder, and the Company shall pay the filing fee required by such filing within two (2) Business Days of receipt of a request therefor.

(i) Prior to any resale of Registrable Securities by a Holder, the Company shall use its best efforts to register or qualify or cooperate with the selling Holders in connection with the registration or qualification (or exemption from the Registration or qualification) of such Registrable Securities for the resale by the

Holder under the securities or Blue Sky laws of such jurisdictions within the United States as any Holder reasonably requests in writing, to keep each registration or qualification (or exemption therefrom) effective during the Effectiveness Period and to do any and all other acts or things reasonably necessary to enable the disposition in such jurisdictions of the Registrable Securities covered by each Registration Statement; **provided,** that the Company shall not be required to qualify generally to do business in any jurisdiction where it is not then so qualified, subject the Company to any material tax in any such jurisdiction where it is not then so subject or file a general consent to service of process in any such jurisdiction.

(j) If requested by a Holder, the Company shall cooperate with such Holder to facilitate the timely preparation and delivery of certificates representing Registrable Securities to be delivered to a transferee pursuant to a Registration Statement, which certificates shall be free, to the extent permitted by the Purchase Agreement, of all restrictive legends, and to enable such Registrable Securities to be in such denominations and registered in such names as any such Holder may request.

(k) Upon the occurrence of any event contemplated by Section 3(d), as promptly as reasonably possible under the circumstances taking into account the Company's good faith assessment of any adverse consequences to the Company and its stockholders of the premature disclosure of such event, prepare a supplement or amendment, including a post-effective amendment, to a Registration Statement or a supplement to the related Prospectus or any document incorporated or deemed to be incorporated therein by reference, and file any other required document so that, as thereafter delivered, neither a Registration Statement nor such Prospectus will contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Company notifies the Holders in accordance with clauses (iii) through (vi) of Section 3(d) above to suspend the use of any Prospectus until the requisite changes to such Prospectus have been made, then the Holders shall suspend use of such Prospectus. The Company will use its best efforts to ensure that the use of the Prospectus may be resumed as promptly as is practicable. The Company shall be entitled to exercise its right under this Section 3(k) to suspend the availability of a Registration Statement and Prospectus, subject to the payment of partial liquidated damages otherwise required pursuant to Section 2(g), for a period not to exceed sixty (60) calendar days (which need not be consecutive days) in any 12-month period.

(l) The Company shall comply with all applicable rules and regulations of the Commission.

(m) The Company shall use its best efforts to maintain eligibility for use of Form S-3 (or any successor form thereto) for the registration of the resale of Registrable Securities.

(n) The Company may require from each selling Holder a certified statement as to the number of shares of Common Stock beneficially owned by such Holder and the name(s) of the natural persons thereof that have voting and dispositive control over the Common Stock and the Preferred Stock. During any periods that the Company is unable to meet its obligations hereunder with respect to the registration of the Registrable Securities solely because any Holder fails to furnish such information within three Trading Days of the Company's request, any liquidated damages that are accruing at such time as to such Holder only shall be tolled and any Event that may otherwise occur solely because of such delay shall be suspended as to all Holders until such information is delivered to the Company.

4 . Registration Expenses. All fees and expenses incident to the performance of or compliance with, this Agreement by the Company shall be borne by the Company whether or not any Registrable Securities are sold pursuant to a Registration Statement. The fees and expenses referred to in the foregoing sentence shall include, without limitation, (i) all registration and filing fees (including, without limitation, fees and expenses of the Company's counsel and independent registered public accountants) (A) with respect to filings made with the Commission, (B) with respect to filings required to be made with any Trading Market on which the Common Stock is then listed for trading, (C) in compliance with applicable state securities or Blue Sky laws reasonably agreed to by the Company in writing (including, without limitation, fees and disbursements of counsel for the Company in connection with Blue Sky qualifications or exemptions of the Registrable Securities) and (D) if not previously paid by the Company in connection with an Issuer Filing, with respect to any filing that may be required to be made by any broker through which a Holder intends to make sales of Registrable Securities with FINRA pursuant to FINRA Rule 5110, so long as the broker is receiving no more than a customary brokerage commission in connection with such sale, (ii) printing expenses (including, without limitation, expenses of printing certificates for Registrable Securities), (iii) messenger, telephone and delivery expenses, (iv) fees and disbursements of counsel for the Company, (v) Securities Act liability insurance, if the Company so desires such insurance, and (vi) fees and expenses of all other Persons retained by the Company in connection with the consummation of the transactions contemplated by this Agreement. In addition, the Company shall be responsible for all of its internal expenses incurred in connection with the consummation of the transactions contemplated by this Agreement (including, without limitation, all salaries and expenses of its officers and employees performing legal or accounting duties), the expense of any annual audit and the fees and expenses incurred in connection with the listing of the Registrable Securities on any securities exchange as required hereunder. In no event shall the Company be responsible for any broker or similar commissions of any Holder or, except to the extent provided for in the Transaction Documents, any legal fees or other costs of the Holders.

5. Indemnification.

(a) Indemnification by the Company. The Company shall, notwithstanding any termination of this Agreement, in addition to and not in substitution for, any other indemnification provision by the Company, indemnify and hold harmless each Holder, the officers, directors, managers, managing members, members, partners, advisors, agents, brokers (including brokers who offer and sell Registrable Securities as principal as a result of a pledge or any failure to perform under a margin call of Common Stock), staff members (whether or not classified as employees or independent contractors), investment advisors and (and any other Persons with a functionally equivalent role of a Person holding such titles, notwithstanding a lack of such title or any other title) of each of them, each Person who controls any such Holder (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) and the officers, directors, managers, managing members, members, stockholders, staff members (whether or not classified as employees or independent contractors), partners, advisors, agents (and any other Persons with a functionally equivalent role of a Person holding such titles, notwithstanding a lack of such title or any other title) of each such controlling Person, to the fullest extent permitted by applicable law, from and against any and all losses, claims, damages, liabilities, costs (including, without limitation, reasonable attorneys' fees) and expenses (collectively, "**Losses**"), as incurred, arising out of or relating to (1) any untrue or alleged untrue statement of a material fact contained in a Registration Statement, any Prospectus or any form of prospectus or in any amendment or supplement thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading or (2) any violation or alleged violation by the Company of the Securities Act, the Exchange Act or any state securities law, or any rule or regulation thereunder, in connection with the performance of its obligations under this Agreement, except to the extent, but only to the extent, that (i) such untrue statements or omissions are based solely upon information regarding such Holder furnished in writing to the Company by such Holder expressly for use therein, or to the extent that such information relates to such Holder or such Holder's proposed method of distribution of Registrable Securities and was reviewed and expressly approved in writing by such Holder expressly for use in a Registration Statement, such Prospectus or in any amendment or supplement thereto or (ii) in the case of an occurrence of an event of the type specified in Section 3(d)(iii)-(vi), the use by such Holder of an outdated, defective or otherwise unavailable Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated, defective or otherwise unavailable for use by such Holder and prior to the receipt by such Holder of the Advice contemplated in Section 6(d), but only if and to the extent that following the receipt of the Advice the misstatement or omission giving rise to such Loss would have been corrected. The Company shall notify the Holders promptly of the institution, threat or assertion of any Proceeding arising from or in connection with the transactions contemplated by this Agreement of which the Company is aware. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of such indemnified person and shall survive the transfer of any Registrable Securities by any of the Holders in accordance with Section 6(h).

(b) Indemnification by Holders. Each Holder shall, severally and not jointly, indemnify and hold harmless the Company, its directors, officers, agents and employees, each Person who controls the Company (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, agents or employees of such controlling Persons, to the fullest extent permitted by applicable law, from and against all Losses, as incurred, to the extent arising out of or based solely upon: (x) such Holder's failure to comply with any applicable prospectus delivery requirements of the Securities Act through no fault of the Company or (y) any untrue or alleged untrue statement of a material fact contained in any Registration Statement, any Prospectus, or in any amendment or supplement

thereto or in any preliminary prospectus, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or supplement thereto, in light of the circumstances under which they were made) not misleading (i) to the extent, but only to the extent, that such untrue statement or omission is contained in any information so furnished in writing by such Holder to the Company expressly for inclusion in such Registration Statement or such Prospectus, (ii) to the extent, but only to the extent, that such information relates to such Holder's proposed method of distribution of Registrable Securities and was reviewed and expressly approved in writing by such Holder expressly for use in a Registration Statement, such Prospectus or in any amendment or supplement thereto or (iii) in the case of an occurrence of an event of the type specified in Section 3(d)(iii)-(vi), to the extent, but only to the extent, related to the use by such Holder of an outdated, defective or otherwise unavailable Prospectus after the Company has notified such Holder in writing that the Prospectus is outdated, defective or otherwise unavailable for use by such Holder and prior to the receipt by such Holder of the Advice contemplated in Section 6(d), but only if and to the extent that following the receipt of the Advice the misstatement or omission giving rise to such Loss would have been corrected. In no event shall the liability of any selling Holder under this Section 5(b) be greater in amount than the dollar amount of the net proceeds received by such Holder upon the sale of the Registrable Securities giving rise to such indemnification obligation.

(c) Conduct of Indemnification Proceedings. If any Proceeding shall be brought or asserted against any Person entitled to indemnity hereunder (an "**Indemnified Party**"), such Indemnified Party shall promptly notify the Person from whom indemnity is sought (the "**Indemnifying Party**") in writing, and the Indemnifying Party shall have the right to assume the defense thereof, including the employment of counsel reasonably satisfactory to the Indemnified Party and the payment of all fees and expenses incurred in connection with defense thereof; **provided,** that the failure of any Indemnified Party to give such notice shall not relieve the Indemnifying Party of its obligations or liabilities pursuant to this Agreement, except (and only) to the extent that it shall be finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) that such failure shall have materially and adversely prejudiced the Indemnifying Party.

An Indemnified Party shall have the right to employ separate counsel in any such Proceeding and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party or Parties unless: (1) the Indemnifying Party has agreed in writing to pay such fees and expenses; (2) the Indemnifying Party shall have failed promptly to assume the defense of such Proceeding and to employ counsel reasonably satisfactory to such Indemnified Party in any such Proceeding; or (3) the named parties to any such Proceeding (including any impleaded parties) include both such Indemnified Party and the Indemnifying Party, and counsel to the Indemnified Party shall reasonably believe that a material conflict of interest is likely to exist if the same counsel were to represent such Indemnified Party and the Indemnifying Party (in which case, if such Indemnified Party notifies the Indemnifying Party in writing that it elects to employ separate counsel at the expense of the Indemnifying Party, the Indemnifying Party shall not have the right to assume the defense thereof and the reasonable fees and expenses of no more than one separate counsel shall be at the expense of the Indemnifying Party). The Indemnifying Party shall not be liable for any settlement of any such Proceeding effected without its written consent, which consent shall not be unreasonably withheld or delayed. No Indemnifying Party shall, without the prior written consent of the Indemnified Party, effect any settlement of any pending Proceeding in respect of which any Indemnified Party is a party, unless such settlement includes an unconditional release of such Indemnified Party from all liability on claims that are the subject matter of such Proceeding.

Subject to the terms of this Agreement, all reasonable fees and expenses of the Indemnified Party (including reasonable fees and expenses to the extent incurred in connection with investigating or preparing to defend such Proceeding in a manner not inconsistent with this Section) shall be paid to the Indemnified Party, as incurred, within ten (10) Trading Days of written notice thereof to the Indemnifying Party; **provided,** that the Indemnified Party shall promptly reimburse the Indemnifying Party for that portion of such fees and expenses applicable to such actions for which such Indemnified Party is finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) not to be entitled to indemnification hereunder.

(d) Contribution. If the indemnification under Section 5(a) or 5(b) is unavailable to an Indemnified Party or insufficient to hold an Indemnified Party harmless for any Losses, then each Indemnifying Party shall contribute to the amount paid or payable by such Indemnified Party, in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party and Indemnified Party in connection with the actions, statements or omissions that resulted in such Losses as well as any other relevant equitable considerations. The relative fault of such Indemnifying Party and Indemnified Party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission of a material fact, has been taken or made by, or relates to information supplied by, such Indemnifying Party or Indemnified Party, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action, statement or omission. The amount paid or payable by a party as a result of any Losses shall be deemed to include, subject to the limitations set forth in this Agreement, any reasonable attorneys' or other fees or expenses incurred by such party in connection with any Proceeding to the extent such party would have been indemnified for such fees or expenses if the indemnification provided for in this Section was available to such party in accordance with its terms.

The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 5(d) were determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to in the immediately preceding paragraph. Notwithstanding the provisions of this Section 5(d), no Holder shall be required to contribute pursuant to this Section 5(d), in the aggregate, any amount in excess of the amount by which the net proceeds actually received by such Holder from the sale of the Registrable Securities subject to the Proceeding exceeds the amount of any damages that such Holder has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission.

The indemnity and contribution agreements contained in this Section are in addition to any liability that the Indemnifying Parties may have to the Indemnified Parties.

6. **Miscellaneous.**

(a) Remedies. In the event of a breach by the Company or by a Holder of any of their respective obligations under this Agreement, each Holder or the Company, as the case may be, in addition to being entitled to exercise all rights granted by law and under this Agreement, including recovery of damages, shall be entitled to specific performance of its rights under this Agreement. Each of the Company and each Holder agrees that monetary damages would not provide adequate compensation for any losses incurred by reason of a breach by it of any of the provisions of this Agreement and hereby further agrees that, in the event of any action for specific performance in respect of such breach, it shall not assert or shall waive the defense that a remedy at law would be adequate.

(b) [Reserved].

(c) Compliance. Each Holder covenants and agrees that it will comply with the prospectus delivery requirements of the Securities Act as applicable to it (unless an exemption therefrom is available) in connection with sales of Registrable Securities pursuant to a Registration Statement.

(d) Discontinued Disposition. By its acquisition of Registrable Securities, the Holder agrees that, upon receipt of a notice from the Company of the occurrence of any event of the kind described in Section 3(d)(iii) through (vi), such Holder will forthwith discontinue disposition of such Registrable Securities under a Registration Statement until it is advised in writing (the "**Advice**") by the Company that the use of the applicable Prospectus (as it may have been supplemented or amended) may be resumed. The Company will use its best efforts to ensure that the use of the Prospectus may be resumed as promptly as is practicable. The Company agrees and acknowledges that any periods during which the Holder is required to discontinue the disposition of the Registrable Securities hereunder shall be subject to the provisions of Section 2(d).

(e) Piggy-Back Registrations. If, at any time during the Effectiveness Period, there is not an effective Registration Statement covering all of the Registrable Securities and the Company shall determine to prepare and file with the Commission a registration statement relating to an offering for its own account or the account of others under the Securities Act of any of its equity securities, other than on Form S-4 or Form S-8 (each as promulgated under the Securities Act) or their then equivalents relating to equity securities to be issued solely in connection with any acquisition of any entity or business or equity securities issuable in connection with the Company's stock option or other employee benefit plans, then the Company shall deliver to the Holder a written notice of such determination and, if within fifteen (15) days after the date of the delivery of such notice, any such Holder shall so request in writing, the Company shall include in such registration statement all or any part of such Registrable Securities such Holder requests to be registered; **provided, however**, that the Company shall not be required to register any Registrable Securities pursuant to this Section 6(e) that are eligible for resale pursuant to Rule 144 (without volume restrictions or current public information requirements) promulgated by the Commission pursuant to the Securities Act or that are the subject of a then effective Registration Statement.

(f) Amendments and Waivers. The provisions of this Agreement, including the provisions of this sentence, may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given, unless the same shall be in writing and signed by the Company and the Holders of 67% or more of the then outstanding Registrable Securities (for purposes of clarification, this includes any Registrable Securities issuable upon exercise or conversion of any Security). If a Registration Statement does not register all of the Registrable Securities pursuant to a waiver or amendment done in compliance with the previous sentence, then the number of Registrable Securities to be registered for each Holder shall be reduced pro rata among all Holders and each Holder shall have the right to designate which of its Registrable Securities shall be omitted from such Registration Statement. Notwithstanding the foregoing, a waiver or consent to depart from the provisions hereof with respect to a matter that relates exclusively to the rights of a Holder or some Holders and that does not directly or indirectly affect the rights of other Holders may be given only by such Holder or Holders of all of the Registrable Securities to which such waiver or consent relates; **provided, however**, that the provisions of this sentence may not be amended, modified, or supplemented except in accordance with the provisions of the first sentence of this Section 6(f). No consideration shall be offered or paid to any Person to amend or consent to a waiver or modification of any provision of this Agreement unless the same consideration also is offered to all of the parties to this Agreement.

(g) Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be delivered as set forth in the Purchase Agreement.

(h) Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of each of the parties hereto and shall inure to the benefit of each Holder. The Company may not assign (except by merger) its rights or obligations hereunder without the prior written consent of all of the Holders of the then outstanding Registrable Securities. Each Holder may assign their respective rights hereunder in the manner and to the Persons as permitted under Section 5.7 of the Purchase Agreement.

(i) No Inconsistent Agreements. Neither the Company nor any of its Subsidiaries has entered, as of the date hereof, nor shall the Company or any of its Subsidiaries, on or after the date of this Agreement, enter into any agreement with respect to its securities, that would have the effect of impairing the rights granted to the Holders in this Agreement or otherwise conflicts with the provisions hereof.

(j) Execution and Counterparts. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other party, it being understood that all parties hereto need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature page were an original thereof.

(k) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be determined in accordance with the provisions of the Purchase Agreement.

(l) Cumulative Remedies. The remedies provided herein are cumulative and not exclusive of any other remedies provided by law.

(m) Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their best efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties hereto that they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable.

(n) Headings. The headings in this Agreement are for convenience only, do not constitute a part of the Agreement and shall not be deemed to limit or affect any of the provisions hereof.

(o) Independent Nature of Holders' Obligations and Rights. The obligations of each Holder hereunder are several and not joint with the obligations of any other Holder hereunder, and no Holder shall be responsible in any way for the performance of the obligations of any other Holder hereunder. Nothing contained herein or in any other agreement or document delivered at any closing, and no action taken by any Holder pursuant hereto or thereto, shall be deemed to constitute the Holders as a partnership, an association, a joint venture or any other kind of group or entity, or create a presumption that the Holders are in any way acting in concert or as a group or entity with respect to such obligations or the transactions contemplated by this Agreement or any other matters, and the Company acknowledges that the Holders are not acting in concert or as a group, and the Company shall not assert any such claim, with respect to such obligations or transactions. Each Holder shall be entitled to protect and enforce its rights, including without limitation the rights arising out of this Agreement, and it shall not be necessary for any other Holder to be joined as an additional party in any proceeding for such purpose. The use of a single agreement with respect to the obligations of the Company contained was solely in the control of the Company, not the action or decision of any Holder, and was done solely for the convenience of the Company and not because it was required or requested to do so by any Holder. It is expressly understood and agreed that each provision contained in this Agreement is between the Company and a Holder, solely, and not between the Company and the Holders collectively and not between and among Holders.

****

(Signature Pages Follow)

By:_____
Name:
Title:

[Signature Page of Holders Follows]

[SIGNATURE PAGE OF HOLDER TO RRA]

Name of Holder:

Signature of Authorized Signatory of Holder: _____

Name of Authorized Signatory:

Title of Authorized Signatory:

[Signature Pages Continue]

ANNEX A

CHROMOCELL THERAPEUTICS CORPORATION

Selling Stockholder Notice and Questionnaire

The undersigned beneficial owner of shares of common stock (the "**Registrable Securities**") of CHROMOCELL THERAPEUTICS CORPORATION (the "**Company**"), understands that the Company has filed or intends to file with the Securities and Exchange Commission (the "**Commission**") a registration statement (the "**Registration Statement**") for the registration and resale under Rule 415 of the Securities Act of 1933, as amended (the "**Securities Act**"), of the Registrable Securities, in accordance with the terms of the Registration Rights Agreement (the "**Registration Rights Agreement**") to which this document is annexed. A copy of the Registration Rights Agreement is available from the Company upon request at the address set forth below. All capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the Registration Rights Agreement.

Certain legal consequences arise from being named as a selling stockholder in the Registration Statement and the related prospectus. Accordingly, holders and beneficial owners of Registrable Securities are advised to consult their own securities law counsel regarding the consequences of being named or not being named as a selling stockholder in the Registration Statement and the related prospectus.

NOTICE

The undersigned beneficial owner (the "**Selling Stockholder**") of Registrable Securities hereby elects to include the Registrable Securities owned by it in the Registration Statement.

The undersigned hereby provides the following information to the Company and represents and warrants that such information is accurate:

QUESTIONNAIRE

1. Name.

(a) Full Legal Name of Selling Stockholder

_____

(b) Full Legal Name of Registered Holder (if not the same as (a) above) through which Registrable Securities are held:

_____

(c) Full Legal Name of Natural Control Person (which means a natural person who directly or indirectly alone or with others has power to vote or dispose of the securities covered by this Questionnaire):

_____

2. Address for Notices to Selling Stockholder:

_____

Telephone:_____
Fax:_____
Contact Person:_____

3. Broker-Dealer Status:

(a) Are you a broker-dealer?

Yes ☐ No ☐

(b) If "yes" to Section 3(a), did you receive your Registrable Securities as compensation for investment banking services to the Company?

Yes ☐ No ☐

Note: If "no" to Section 3(b), the Commission's staff has indicated that you should be identified as an underwriter in the Registration Statement.

(c) Are you an affiliate of a broker-dealer?

Yes ☐ No ☐

(d) If you are an affiliate of a broker-dealer, do you certify that you purchased the Registrable Securities in the ordinary course of business, and at the time of the purchase of the Registrable Securities to be resold, you had no agreements or understandings, directly or indirectly, with any person to distribute the Registrable Securities?

Yes ☐ No ☐

Note: If "no" to Section 3(d), the Commission's staff has indicated that you should be identified as an underwriter in the Registration Statement.

4. Beneficial Ownership of Securities of the Company Owned by the Selling Stockholder.

Except as set forth below in this Item 4, the undersigned is not the beneficial or registered owner of any securities of the Company other than the securities issuable pursuant to the Purchase Agreement.

(a) Type and Amount of other securities beneficially owned by the Selling Stockholder:

5. Relationships with the Company:

Except as set forth below, neither the undersigned nor any of its affiliates, officers, directors or principal equity holders (owners of 5% of more of the equity securities of the undersigned) has held any position or office or has had any other material relationship with the Company (or its predecessors or affiliates) during the past three years.

State any exceptions here:

The undersigned agrees to promptly notify the Company of any material inaccuracies or changes in the information provided herein that may occur subsequent to the date hereof at any time while the Registration Statement remains effective; **provided,** that the undersigned shall not be required to notify the Company of any changes to the number of securities held or owned by the undersigned or its affiliates.

By signing below, the undersigned consents to the disclosure of the information contained herein in its answers to Items 1 through 5 and the inclusion of such information in the Registration Statement and the related prospectus and any amendments or supplements thereto. The undersigned understands that such information will be relied upon by the Company in connection with the preparation or amendment of the Registration Statement and the related prospectus and any amendments or supplements thereto.

IN WITNESS WHEREOF the undersigned, by authority duly given, has caused this Notice and Questionnaire to be executed and delivered either in person or by its duly authorized agent.

Date: _____

Beneficial Owner: _____

By: _____
Name:
Title:

PLEASE EMAIL A .PDF COPY OF THE COMPLETED AND EXECUTED NOTICE AND QUESTIONNAIRE TO:

[_____]

Exhibit 10.12

FIRST AMENDMENT TO THE CHROMOCELL THERAPEUTICS CORPORATION
2023 EQUITY INCENTIVE PLAN

As adopted by resolution of the
Board of Directors effective as of [September __, 2023]

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1. Section 3 of the Chromocell Therapeutics Corporation 2023 Equity Incentive Plan (the "2023 Plan") is amended by deleting the number "3,000,000" and inserting therefor "4,000,000."

2. Except as hereinabove amended, the provisions of the 2023 Plan shall remain in full force and effect.

Exhibit 23.1

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the inclusion in this Registration Statement of Chromocell Therapeutics Corporation on Form S-1 (Amendment No. 5) (File No. 333-269188) of our report dated May 1, 2023, which includes an explanatory paragraph as to the Company's ability to continue as a going concern, with respect to our audits of the financial statements of Chromocell Therapeutics Corporation as of December 31, 2022 and 2021 and for the years ended December 31, 2022 and 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.

Our report on the financial statements includes an emphasis of matter paragraph as to the preparation of the financial statements on a carve-out basis.

/s/ Marcum llp

Marcum llp
Houston, Texas
September 1, 2023