

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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

December 23, 2024

Date of Report (Date of earliest event reported)

MARKER THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation)

001-37939

(Commission File Number)

45-4497941

(IRS Employer Identification No.)

2450 Holcombe Blvd, Suite BCM-A, MS: BCM251

Houston, Texas

(Address of principal executive offices)

77021

(Zip Code)

(713) 400-6400

Registrant's telephone number, including area code

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.001 per share	MRKR	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 1.01 Entry into a Material Definitive Agreement.

As previously disclosed, on December 19, 2024, Marker Therapeutics, Inc. (the “Company”) entered into a securities purchase agreement (the “**Securities Purchase Agreement**”) with various investors for the issuance and sale in a private placement (the “Private Placement”) of (i) 1,783,805 shares of Common Stock par value \$0.001 per share (the “**Common Stock**”), (ii) Series A Warrants to acquire 5,031,250 shares of Common Stock (the “**Private Placement Warrants**”) and (iii) partially prepaid warrants to acquire 3,248,445 additional shares of Common Stock (the “**Pre-Funded Warrants**”, and together with the Private Placement Warrants, the “**Warrants**”).

The Private Placement closed on December 23, 2024. The gross proceeds to the Company from the Private Placement were approximately \$16.1 million, before deducting placement agent fees and offering expenses payable by the Company. The Company intends to use the net proceeds received from the Private Placement for general corporate purposes and working capital.

Pursuant to the Securities Purchase Agreement, the Company is obligated to call a meeting of its stockholders to obtain stockholder approval (the “**Stockholder Approval**”) for the issuance of the shares issuable upon exercise of the Warrants within 90 days of the closing date. If the Stockholder Approval is not obtained at such meeting, the Company is required to cause an additional stockholder meeting to be held on or prior to the 180th day after the closing date, and, if despite the Company’s reasonable best efforts the Stockholder Approval is not obtained after such subsequent stockholder meeting, the Company is required to cause an additional stockholder meeting to be held semi-annual thereafter until such Stockholder Approval is obtained. In connection therewith, the Company entered into voting agreements with certain stockholders pursuant to which such stockholders, who collectively own approximately 27% of the shares of common stock outstanding immediately prior to the closing of the Private Placement, agreed to vote in favor of the Private Placement.

The Warrants are exercisable at any time on or after the date that the Stockholder Approval is obtained and have a term of five years commencing upon the date that the Stockholder Approval is obtained. The Pre-Funded warrants are exercisable at a price of \$0.001 per share and the Private Placement Warrants have an exercise price of \$4.00 per share.

In connection with the Private Placement, the Company entered into a registration rights agreement (the “**Registration Rights Agreement**”), dated as of December 19, 2024, with the investors in the Private Placement, pursuant to which the Company agreed to prepare and file a registration statement with the Securities and Exchange Commission (the “**SEC**”) registering the resale of the shares of Common Stock issued in the Private Placement along with the shares of Common Stock underlying the Warrants no later than January 14, 2025, and to use its best efforts to have the registration statement declared effective as promptly as practical thereafter, and in any event no later than the earlier of (A) February 14, 2024 and (B) the second business day after the date the Company is notified by the SEC that the Registration Statement will not be reviewed or will not be subject to further review.

None of the issuances of the shares of Common Stock, the Pre-Funded Warrants, the Private Placement Warrants, or the shares of Common Stock issuable upon exercise of the Warrants (the “**Warrant Shares**”) have been registered under the Securities Act of 1933, as amended (the “**Securities Act**”), or any state securities laws. The shares of Common Stock, the Pre-Funded Warrants and the Private Placement Warrants, were issued, and Warrant Shares will be issued, in reliance on the exemptions from registration provided by Section 4(a)(2) under the Securities Act and/or Regulation D promulgated thereunder. The investors who entered into to a Securities Purchase Agreement have represented that they are each an accredited investor, as defined in Rule 501 of Regulation D promulgated under the Securities Act.

Canaccord Genuity LLC acted as the Company’s lead placement agent and Brookline Capital Markets, a division of Arcadia Securities, LLC, acted as co-placement agent (collectively, the “**Agents**”) in connection with the Private Placement, pursuant to that certain engagement letter, dated as of June 14, 2024, between the Company and Canaccord Genuity LLC (the “**Engagement Letter**”). Pursuant to the Engagement Letter, the Company paid or agreed to pay the Agents a cash fee equal to (i) 6% of the aggregate gross proceeds of the Private Placement other than from certain identified investors (the “**Reduced Fee Investors**”), (ii) 3% of the first \$5 million of aggregate gross proceeds of the Private Placement from the Reduced Fee Investors, and (iii) 6% of the aggregate gross proceeds of the Private Placement from the Reduced Fee Investors in excess of \$5 million. In addition, the Company agreed to pay Wainwright certain expenses.

The Engagement Letter and the Securities Purchase Agreement contain customary representations and warranties, agreements and obligations, conditions to closing and termination provisions. The foregoing descriptions of terms and conditions of the Securities Purchase Agreement, the Pre-Funded Warrants, the Private Placement Warrants, and the Registration Rights Agreement do not purport to be complete and are qualified in their entirety by the full text of the form of the Purchase Agreement, the form of the Pre-Funded Warrant, the form of Private Placement Warrant, and the form of the Registration Rights Agreement, which are attached hereto as Exhibits 10.1, 4.1, 4.2, and 10.2, respectively.

This Current Report on Form 8 – K does not constitute an offer to sell the securities or a solicitation of an offer to buy the securities, nor shall there be any sale of the securities in any state or jurisdiction in which such an offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

Item 3.02 Unregistered Sales of Equity Securities.

The information contained above in Item 1.01 regarding the issuance of the shares of Common Stock, the Pre-Funded Warrants, the Private Placement Warrants and the Warrant Shares is hereby incorporated by reference into this Item 3.02.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
4.1	Form of Pre-Funded Warrant
4.2	Form of Series A Warrant (Private Placement Warrant)
10.1	Securities Purchase Agreement dated December 19, 2024
10.2	Registration Rights dated December 19, 2024
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Marker Therapeutics, Inc.

Dated: December 23, 2024

By: /s/ Juan Vera

Juan Vera

President and Chief Executive Officer

[FORM OF SERIES B PREPAID WARRANT]

NEITHER THE ISSUANCE AND SALE OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE NOR THE SECURITIES INTO WHICH THESE SECURITIES ARE EXERCISABLE HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR (B) AN OPINION OF COUNSEL TO THE HOLDER (IF REQUESTED BY THE COMPANY), IN A FORM REASONABLY ACCEPTABLE TO THE COMPANY, THAT REGISTRATION IS NOT REQUIRED UNDER SAID ACT OR (II) UNLESS SOLD OR ELIGIBLE TO BE SOLD PURSUANT TO RULE 144 OR RULE 144A UNDER SAID ACT. NOTWITHSTANDING THE FOREGOING, THE SECURITIES MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN OR FINANCING ARRANGEMENT SECURED BY THE SECURITIES. THE NUMBER OF SHARES OF COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT MAY BE LESS THAN THE AMOUNTS SET FORTH ON THE FACE HEREOF PURSUANT TO SECTION 1(a) OF THIS WARRANT.

MARKER THERAPEUTICS, INC.

SERIES B PREPAID WARRANT TO PURCHASE COMMON STOCK

Series B Warrant No.:

Date of Issuance: [], 20__ (“**Issuance Date**”)

Marker Therapeutics, Inc., a Delaware corporation (the “**Company**”), hereby certifies that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, _____, the registered holder hereof or its permitted assigns (the “**Holder**”), is entitled, subject to the terms set forth below, to purchase from the Company, at the Exercise Price (as defined below) then in effect, upon exercise of this Series B Prepaid Warrant to Purchase Common Stock (including any B Prepaid Warrants to Purchase Common Stock issued in exchange, transfer or replacement hereof, the “**Warrant**”), at any time or times on or after the Stockholder Approval Date, but not after 11:59 p.m., New York time, on the Expiration Date (as defined below), _____ (subject to adjustment as provided herein) fully paid and non-assessable shares of Common Stock (as defined below) (the “**Warrant Shares**”, and such number of Warrant Shares, the “**Warrant Number**”). Except as otherwise defined herein, capitalized terms in this Warrant shall have the meanings set forth in Section 19. This Warrant is one of the Warrants to Purchase Common Stock (the “**SPA Warrants**”) issued pursuant to Section 1 of that certain Securities Purchase Agreement, dated as of December 19, 2024 (the “**Subscription Date**”), by and among the Company and the investors (the “**Buyers**”) referred to therein, as amended from time to time (the “**Securities Purchase Agreement**”).

Notwithstanding anything herein to the contrary, the Aggregate Exercise Price (as defined below) of this Warrant, except for a nominal exercise price of \$0.001 per Warrant Share, was pre-funded to the Company on or prior to the initial Issuance Date and, consequently, no additional consideration (other than the nominal exercise price of \$0.001 per Warrant Share) shall be required to be paid by the Holder to any Person to effect any exercise of this Warrant.

1. EXERCISE OF WARRANT.

(a) Mechanics of Exercise. Subject to the terms and conditions hereof (including, without limitation, the limitations set forth in Section 1(f)), this Warrant may be exercised by the Holder on any day on or after the Stockholder Approval Date (an “**Exercise Date**”), in whole or in part, by delivery (whether via facsimile or otherwise) of a written notice, in the form attached hereto as Exhibit A (the “**Exercise Notice**”), of the Holder’s election to exercise this Warrant. Within one (1) Trading Day following an exercise of this Warrant as aforesaid, the Holder shall deliver payment to the Company of an amount equal to the Exercise Price in effect on the date of such exercise multiplied by the number of Warrant Shares as to which this Warrant was so exercised (the “**Aggregate Exercise Price**”) in cash or via wire transfer of immediately available funds if the Holder did not notify the Company in such Exercise Notice that such exercise was made pursuant to a Cashless Exercise (as defined in Section 1(d)). The Holder shall not be required to deliver the original of this Warrant in order to effect an exercise hereunder. Execution and delivery of an Exercise Notice with respect to less than all of the Warrant Shares shall have the same effect as cancellation of the original of this Warrant and issuance of a new Warrant evidencing the right to purchase the remaining number of Warrant Shares. Execution and delivery of an Exercise Notice for all of the then-remaining Warrant Shares shall have the same effect as cancellation of the original of this Warrant after delivery of the Warrant Shares in accordance with the terms hereof. On the date on which the Company has received an Exercise Notice, the Company shall transmit by facsimile or electronic mail an acknowledgment of receipt of such Exercise Notice, in the form attached hereto as Exhibit B, to the Holder and the Company’s transfer agent (the “**Transfer Agent**”), which confirmation shall constitute an instruction to the Transfer Agent to process such Exercise Notice in accordance with the terms herein. On or before the first (1st) Trading Day following the date on which the Company has received such Exercise 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 of such Warrant Shares initiated on the applicable Exercise Date), the Company shall (X) provided that the Transfer Agent is participating in The Depository Trust Company (“**DTC**”) Fast Automated Securities Transfer Program, upon the request of the Holder, credit such aggregate number of shares of Common Stock to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit/Withdrawal at Custodian system, or (Y) if the Transfer Agent is not participating in the DTC Fast Automated Securities Transfer Program (“**FAST**”), upon the request of the Holder, issue and deliver (via reputable overnight courier) to the address as specified in the Exercise Notice, a certificate, registered in the name of the Holder or its designee, for the number of shares of Common Stock to which the Holder shall be entitled pursuant to such exercise. Upon delivery of an Exercise Notice, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date such Warrant Shares are credited to the Holder’s DTC account or the date of delivery of the certificates evidencing such Warrant Shares (as the case may be); provided, that the Holder shall be deemed to have waived any voting rights of any such Warrant Shares during the period commencing on such Exercise Date, through, and including, such applicable Share Delivery Date (as defined below) (each, an “**Exercise Period**”), as necessary, such that the aggregate voting rights of any Common Stock (including such Warrant Shares) beneficially owned by the Holder and/or any Attribution Parties, collectively, on any such date of determination shall not exceed the Maximum Percentage (as defined below) as a result of any such exercise of this Warrant. If this Warrant is submitted in connection with any exercise pursuant to this Section 1(a) and the number of Warrant Shares represented by this Warrant submitted for exercise is greater than the number of Warrant Shares being acquired upon an exercise and upon surrender of this Warrant to the Company by the Holder, then, at the request of the Holder, the Company shall as soon as practicable and in no event later than one (1) Business Day after any exercise and at its own expense, issue and deliver to the Holder (or its designee) a new Warrant (in accordance with Section 7(d)) representing the right to purchase the number of Warrant Shares purchasable immediately prior to such exercise under this Warrant, less the number of Warrant Shares with respect to which this Warrant is exercised. No fractional shares of Common Stock are to be issued upon the exercise of this Warrant, but rather the number of shares of Common Stock to be issued shall be rounded up to the nearest whole number. 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) that may be payable with respect to the issuance and delivery of Warrant Shares upon exercise of this Warrant. Notwithstanding the foregoing, except in the case where an exercise of this Warrant is validly made pursuant to a Cashless Exercise, the Company’s failure to deliver Warrant Shares to the Holder on or prior to the later of (i) one (1) Trading Day after receipt of the applicable Exercise 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 of such Warrant Shares initiated on the applicable Exercise Date) and (ii) the date of the Company’s receipt of the Aggregate Exercise Price (or valid notice of a Cashless Exercise) (such later date, the “**Share Delivery Date**”) shall not be deemed to be a breach of this Warrant. Notwithstanding anything to the contrary contained in this Warrant or the Registration Rights Agreement, after the effective date of the Registration Statement (as defined in the Registration Rights Agreement) and prior to the Holder’s receipt of the notice of a Grace Period (as defined in the Registration Rights Agreement), the Company shall cause the Transfer Agent to deliver unlegended shares of Common Stock to the Holder (or its designee) in connection with any sale of Registrable Securities (as defined in the Registration Rights Agreement) with respect to which the Holder has entered into a contract for sale, and delivered a copy of the prospectus included as part of the particular Registration Statement to the extent applicable, and for which the Holder has not yet settled. From the Issuance Date through and including the Expiration Date, the Company shall maintain a transfer agent that participates in FAST.

(b) Exercise Price. For purposes of this Warrant, “**Exercise Price**” means \$3.20, subject to adjustment as provided herein.

(c) Company’s Failure to Timely Deliver Securities. If the Company shall fail, for any reason or for no reason, on or prior to the Share Delivery Date, either (I) if the Transfer Agent is not participating in FAST, to issue and deliver to the Holder (or its designee) a certificate for the number of Warrant Shares to which the Holder is entitled and register such Warrant Shares on the Company’s share register or, if the Transfer Agent is participating in FAST, to credit the balance account of the Holder or the Holder’s designee with DTC for such number of Warrant Shares to which the Holder is entitled upon the Holder’s exercise of this Warrant (as the case may be) or (II) if a Registration Statement covering the resale of the Warrant Shares that are the subject of the Exercise Notice (the “**Unavailable Warrant Shares**”) is not available for the resale of such Unavailable Warrant Shares and the Company fails to promptly, but in no event later than as required pursuant to the Registration Rights Agreement (x) so notify the Holder and (y) deliver the Warrant Shares electronically without any restrictive legend by crediting such aggregate number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit/Withdrawal At Custodian system (the event described in the immediately foregoing clause (II) is hereinafter referred to as a “**Notice Failure**” and together with the event described in clause (I) above, a “**Delivery Failure**”), then, in addition to all other remedies available to the Holder, (X) the Company shall pay in cash to the Holder on each day after the Share Delivery Date and during such Delivery Failure an amount equal to 1% of the product of (A) the sum of the number of shares of Common Stock not issued to the Holder on or prior to the Share Delivery Date and to which the Holder is entitled, multiplied by (B) any trading price of the Common Stock selected by the Holder in writing as in effect at any time during the period beginning on the applicable Exercise Date and ending on the applicable Share Delivery Date, and (Y) the Holder, upon written notice to the Company, may void its Exercise Notice with respect to, and retain or have returned, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the voiding of an Exercise Notice shall not affect the Company’s obligations to make any payments which have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise. In addition to the foregoing, if on or prior to the Share Delivery Date either (I) the Transfer Agent is not participating in the DTC Fast Automated Securities Transfer Program, the Company shall fail to issue and deliver to the Holder (or its designee) a certificate and register such shares of Common Stock on the Company’s share register or, if the Transfer Agent is participating in the DTC Fast Automated Securities Transfer Program, the Transfer Agent shall fail to credit the balance account of the Holder or the Holder’s designee with DTC for the number of shares of Common Stock to which the Holder is entitled upon the Holder’s exercise hereunder or pursuant to the Company’s obligation pursuant to clause (ii) below or (II) a Notice Failure occurs, and if on or after such Share Delivery Date the Holder acquires (in an open market transaction, stock loan or otherwise) shares of Common Stock corresponding to all or any portion of the number of shares of Common Stock issuable upon such exercise that the Holder is entitled to receive from the Company and has not received from the Company in connection with such Delivery Failure or Notice Failure, as applicable (a “**Buy-In**”), then, in addition to all other remedies available to the Holder, the Company shall, within two (2) Business Days after the Holder’s request and in the Holder’s discretion, either (i) pay cash to the Holder in an amount equal to the Holder’s total purchase price (including brokerage commissions, stock loan costs and other out-of-pocket expenses, if any) for the shares of Common Stock so acquired (including, without limitation, by any other Person in respect, or on behalf, of the Holder) (the “**Buy-In Price**”), at which point the Company’s obligation to so issue and deliver such certificate (and to issue such shares of Common Stock) or credit the balance account of such Holder or such Holder’s designee, as applicable, with DTC for the number of Warrant Shares to which the Holder is entitled upon the Holder’s exercise hereunder (as the case may be) (and to issue such Warrant Shares) shall terminate, or (ii) promptly honor its obligation to so issue and deliver to the Holder a certificate or certificates representing such Warrant Shares or credit the balance account of such Holder or such Holder’s designee, as applicable, with DTC for the number of Warrant Shares to which the Holder is entitled upon the Holder’s exercise hereunder (as the case may be) and pay cash to the Holder in an amount equal to the excess (if any) of the Buy-In Price over the product of (A) such number of Warrant Shares multiplied by (B) the lowest Closing Sale Price of the Common Stock on any Trading Day during the period commencing on the date of the applicable Exercise Notice and ending on the date of such issuance and payment under this clause (ii) (the “**Buy-In Payment Amount**”). Nothing shall limit the Holder’s right to pursue any other remedies available to it hereunder, at law or in equity, including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company’s failure to timely deliver certificates representing shares of Common Stock (or to electronically deliver such shares of Common Stock) upon the exercise of this Warrant as required pursuant to the terms hereof. While this Warrant is outstanding, the Company shall cause its transfer agent to participate in FAST. In addition to the foregoing rights, (i) if the Company fails to deliver the applicable number of Warrant Shares upon an exercise pursuant to Section 1 by the applicable Share Delivery Date, then the Holder shall have the right to rescind such exercise in whole or in part and retain and/or have the Company return, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the rescission of an exercise shall not affect the Company’s obligation to make any payments that have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise, and (ii) if a registration statement covering the issuance or resale of the Warrant Shares that are subject to an Exercise Notice is not available for the issuance or resale, as applicable, of such Warrant Shares and the Holder has submitted an Exercise Notice prior to receiving notice of the non-availability of such registration statement and the Company has not already delivered the Warrant Shares underlying such Exercise Notice electronically without any restrictive legend by crediting such aggregate number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system, the Holder shall have the option, by delivery of notice to the Company, to (x) rescind such Exercise Notice in whole or in part and retain or have returned, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the rescission of an Exercise Notice shall not affect the Company’s obligation to make any payments that have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise, and/or (y) switch some or all of such Exercise Notice from a cash exercise to a Cashless Exercise.

(d) Cashless Exercise. Notwithstanding anything contained herein to the contrary (other than Section 1(f) below), at any time after the six month anniversary of the Closing Date, the Holder may, in its sole discretion, exercise this Warrant in whole or in part and, in lieu of making the cash payment otherwise contemplated to be made to the Company upon such exercise in payment of the Aggregate Exercise Price, elect instead to receive upon such exercise the “Net Number” of Warrant Shares determined according to the following formula (a “**Cashless Exercise**”):

$$\text{Net Number} = \frac{(A \times B) - (A \times C)}{B}$$

For purposes of the foregoing formula:

A= the total number of shares with respect to which this Warrant is then being exercised.

B = as elected by the Holder: (i) the VWAP of the shares of Common Stock on the Trading Day immediately preceding the date of the applicable Exercise Notice if such Exercise Notice is (1) both executed and delivered pursuant to Section 1(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 1(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Exercise Notice or (z) the Bid Price of the shares of Common Stock as of the time of the Holder’s execution of the applicable Exercise Notice if such Exercise Notice is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter pursuant to Section 1(a) hereof, or (iii) the Closing Sale Price of the Common Stock on the date of the applicable Exercise Notice if the date of such Exercise Notice is a Trading Day and such Exercise Notice is both executed and delivered pursuant to Section 1(a) hereof after the close of “regular trading hours” on such Trading Day.

C = \$0.001 (as adjusted for stock splits, stock dividends, stock combinations, recapitalizations and similar events).

If the Warrant Shares are issued in a Cashless Exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the 1933 Act, the Warrant Shares take on the registered characteristics of the Warrants being exercised. For purposes of Rule 144(d) promulgated under the 1933 Act, as in effect on the Subscription Date, it is intended that the Warrant Shares issued in a Cashless Exercise shall be deemed to have been acquired by the Holder, and the holding period for the Warrant Shares shall be deemed to have commenced, on the date this Warrant was originally issued pursuant to the Securities Purchase Agreement.

(e) Disputes. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the number of Warrant Shares to be issued pursuant to the terms hereof, the Company shall promptly issue to the Holder the number of Warrant Shares that are not disputed and resolve such dispute in accordance with Section 15.

(f) Limitations on Exercises.

(i) Beneficial Ownership. The Company shall not effect the exercise of any portion of this Warrant, and the Holder shall not have the right to exercise any portion of this Warrant, pursuant to the terms and conditions of this Warrant and any such exercise shall be null and void and treated as if never made, to the extent that after giving effect to such exercise, the Holder together with the other Attribution Parties collectively would beneficially own in excess of [4.99][9.99]¹% (the “**Maximum Percentage**”) of the shares of Common Stock outstanding immediately after giving effect to such exercise. For purposes of the foregoing sentence, the aggregate number of shares of Common Stock beneficially owned by the Holder and the other Attribution Parties shall include the number of shares of Common Stock held by the Holder and all other Attribution Parties plus the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which the determination of such sentence is being made, but shall exclude shares of Common Stock which would be issuable upon (A) exercise of the remaining, unexercised portion of this Warrant beneficially owned by the Holder or any of the other Attribution Parties and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company (including, without limitation, any convertible notes or convertible preferred stock or warrants, including other SPA Warrants) beneficially owned by the Holder or any other Attribution Party subject to a limitation on conversion or exercise analogous to the limitation contained in this Section 1(f)(i). For purposes of this Section 1(f)(i), beneficial ownership shall be calculated in accordance with Section 13(d) of the 1934 Act. For purposes of determining the number of outstanding shares of Common Stock the Holder may acquire upon the exercise of this Warrant without exceeding the Maximum Percentage, the Holder may rely on the number of outstanding shares of Common Stock as reflected in (x) the Company’s most recent Annual Report on Form 10-K, Quarterly Report on Form 10-Q, Current Report on Form 8-K or other public filing with the SEC, as the case may be, (y) a more recent public announcement by the Company or (z) any other written notice by the Company or the Transfer Agent, if any, setting forth the number of shares of Common Stock outstanding (the “**Reported Outstanding Share Number**”). If the Company receives an Exercise Notice from the Holder at a time when the actual number of outstanding shares of Common Stock is less than the Reported Outstanding Share Number, the Company shall (i) notify the Holder in writing of the number of shares of Common Stock then outstanding and, to the extent that such Exercise Notice would otherwise cause the Holder’s beneficial ownership, as determined pursuant to this Section 1(f)(i), to exceed the Maximum Percentage, the Holder must notify the Company of a reduced number of Warrant Shares to be acquired pursuant to such Exercise Notice (the number of shares by which such purchase is reduced, the “**Reduction Shares**”) and (ii) as soon as reasonably practicable, the Company shall return to the Holder any exercise price paid by the Holder for the Reduction Shares. For any reason at any time, upon the written or oral request of the Holder, the Company shall within one (1) Business Day confirm orally and in writing or by electronic mail to the 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 Company, including this Warrant, by the Holder and any other Attribution Party since the date as of which the Reported Outstanding Share Number was reported. In the event that the issuance of shares of Common Stock to the Holder upon exercise of this Warrant results in the Holder and the other Attribution Parties being deemed to beneficially own, in the aggregate, more than the Maximum Percentage of the number of outstanding shares of Common Stock (as determined under Section 13(d) of the 1934 Act), the number of shares so issued by which the Holder’s and the other Attribution Parties’ aggregate beneficial ownership exceeds the Maximum Percentage (the “**Excess Shares**”) shall be deemed null and void and shall be cancelled ab initio, and the Holder shall not have the power to vote or to transfer the Excess Shares. As soon as reasonably practicable after the issuance of the Excess Shares has been deemed null and void, the Company shall return to the Holder the exercise price paid by the Holder for the Excess Shares. Upon delivery of a written notice to the Company, the Holder may from time to time increase (with such increase not effective until the sixty-first (61st) day after delivery of such notice) or decrease the Maximum Percentage to any other percentage not in excess of 9.99% as specified in such notice; provided that (i) any such increase in the Maximum Percentage will not be effective until the sixty-first (61st) day after such notice is delivered to the Company and (ii) any such increase or decrease will apply only to the Holder and the other Attribution Parties and not to any other holder of SPA Warrants that is not an Attribution Party of the Holder. For purposes of clarity, the shares of Common Stock issuable pursuant to the terms of this Warrant in excess of the Maximum Percentage shall not be deemed to be beneficially owned by the Holder for any purpose including for purposes of Section 13(d) or Rule 16a-1(a)(1) of the 1934 Act. No prior inability to exercise this Warrant pursuant to this paragraph shall have any effect on the applicability of the provisions of this paragraph with respect to any subsequent determination of exercisability. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 1(f)(i) to the extent necessary to correct this paragraph or any portion of this paragraph which may be defective or inconsistent with the intended beneficial ownership limitation contained in this Section 1(f)(i) or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitation contained in this paragraph may not be waived or amended and shall apply to a successor holder of this Warrant. Notwithstanding the foregoing, if the Holder has elected as of the Subscription Date not to have this Section 1(f)(i) applicable to this Warrant (and solely to the extent the Holder has made such election on the signature page of the Holder to the Securities Purchase Agreement on or prior to the Subscription Date), this Section 1(f)(i) shall not be applicable to this Warrant.

¹ As elected on the signature page of the Holder to the Securities Purchase Agreement

(ii) Principal Market Regulation. Notwithstanding anything herein to the contrary, this Warrant is not exercisable until the Company shall have obtained the Stockholder Approval (as defined in the Securities Purchase Agreement). The date of such Stockholder Approval being referred to herein as the “Stockholder Approval Date.”

(g) Reservation of Shares.

(i) Required Reserve Amount. So long as this Warrant remains outstanding, the Company shall at all times keep reserved for issuance under this Warrant a number of shares of Common Stock at least equal to 100% of the maximum number of shares of Common Stock as shall be necessary to satisfy the Company’s obligation to issue shares of Common Stock under the SPA Warrants then outstanding (without regard to any limitations on exercise) (the “**Required Reserve Amount**”); provided that at no time shall the number of shares of Common Stock reserved pursuant to this Section 1(g)(i) be reduced other than proportionally in connection with any exercise or redemption of SPA Warrants or such other event covered by Section 2(a) below. The Required Reserve Amount (including, without limitation, each increase in the number of shares so reserved) shall be allocated pro rata among the holders of the SPA Warrants based on number of shares of Common Stock issuable upon exercise of SPA Warrants held by each holder on the Closing Date (without regard to any limitations on exercise) 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 SPA Warrants, 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 SPA Warrants shall be allocated to the remaining holders of SPA Warrants, pro rata based on the number of shares of Common Stock issuable upon exercise of the SPA Warrants then held by such holders (without regard to any limitations on exercise).

(ii) Insufficient Authorized Shares. If, notwithstanding Section 1(g)(i) above, and not in limitation thereof, at any time while any of the SPA Warrants remain outstanding, the Company does not have a sufficient number of authorized and unreserved shares of Common Stock to satisfy its obligation to reserve 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 all the SPA Warrants 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 sixty (60) 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 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. Notwithstanding the foregoing, if any such time of an Authorized Share Failure, the Company is able to obtain the written consent of a majority of the shares of its issued and outstanding shares of Common Stock to approve the increase in the number of authorized shares of Common Stock, the Company may satisfy this obligation by obtaining such consent and submitting for filing with the SEC an Information Statement on Schedule 14C. In the event that the Company is prohibited from issuing shares of Common Stock upon an exercise of this Warrant 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 unavailible number of shares of Common Stock, the “Authorization Failure Shares”), in lieu of delivering such Authorization Failure Shares to the Holder, the Company shall pay cash in exchange for the cancellation of such portion of this Warrant exercisable into such Authorization Failure Shares at a price equal to the sum of (i) the product of (x) such number of Authorization Failure Shares and (y) the greatest Closing Sale Price of the Common Stock on any Trading Day during the period commencing on the date the Holder delivers the applicable Exercise Notice with respect to such Authorization Failure Shares to the Company and ending on the date of such issuance and payment under this Section 1(g); and (ii) to the extent the Holder purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the Holder of Authorization Failure Shares, any Buy-In Payment Amount, brokerage commissions and other out-of-pocket expenses, if any, of the Holder incurred in connection therewith. Nothing contained in this Section 1(g) shall limit any obligations of the Company under any provision of the Securities Purchase Agreement.

2. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES. The Exercise Price and number of Warrant Shares issuable upon exercise of this Warrant are subject to adjustment from time to time as set forth in this Section 2.

(a) Stock Dividends and Splits. Without limiting any provision of Section 2(b), Section 3 or Section 4, if the Company, at any time on or after the Subscription Date, (i) pays a stock dividend on one or more classes of its then outstanding shares of Common Stock or otherwise makes a distribution on any class of capital stock that is payable in shares of Common Stock, (ii) subdivides (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of its then outstanding shares of Common Stock into a larger number of shares or (iii) combines (by combination, reverse stock split or otherwise) one or more classes of its then outstanding shares of Common Stock into a smaller number of shares, then in each such case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event. Any adjustment made pursuant to clause (i) of this paragraph shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution, and any adjustment pursuant to clause (ii) or (iii) of this paragraph shall become effective immediately after the effective date of such subdivision or combination. If any event requiring an adjustment under this paragraph occurs during the period that an Exercise Price is calculated hereunder, then the calculation of such Exercise Price shall be adjusted appropriately to reflect such event.

(b) [Intentionally Omitted]

(c) Number of Warrant Shares. Simultaneously with any adjustment to the Exercise Price pursuant to this Section 2(a), the number of Warrant Shares that may be purchased upon exercise of this Warrant shall be increased or decreased proportionately, so that after such adjustment the aggregate Exercise Price payable hereunder for the adjusted number of Warrant Shares shall be the same as the aggregate Exercise Price in effect immediately prior to such adjustment (without regard to any limitations on exercise contained herein).

(d) [Intentionally Omitted]

(e) Calculations. All calculations under this Section 2 shall be made by rounding to the nearest cent or the nearest 1/100th of a share, as applicable. The number of shares of Common Stock outstanding at any given time shall not include shares owned or held by or for the account of the Company, and the disposition of any such shares shall be considered an issuance or sale of Common Stock.

(f) Voluntary Adjustment By Company. Subject to the rules and regulations of the Principal Market, the Company may at any time during the term of this Warrant, with the prior written consent of the Required Holders (as defined in the Securities Purchase Agreement), reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

3. RIGHTS UPON DISTRIBUTION OF ASSETS. In addition to any adjustments pursuant to Section 2 above or Section 4(a) below, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to 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, options, evidence of indebtedness or any other assets by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a “**Distribution**”), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution 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 Warrant (without regard to any limitations or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage) immediately before 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 shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that to the extent that the Holder’s right to participate in any such Distribution would result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to participate in such Distribution in excess of the Maximum Percentage (and shall not be entitled to beneficial ownership of such shares of Common Stock as a result of such Distribution (and beneficial ownership) to the extent of any such excess) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time or times, if ever, as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the Holder shall be granted such Distribution (and any Distributions declared or made on such initial Distribution or on any subsequent Distribution held similarly in abeyance) to the same extent as if there had been no such limitation).

4. PURCHASE RIGHTS; FUNDAMENTAL TRANSACTIONS.

(a) Purchase Rights. In addition to any adjustments pursuant to Sections 2 or 3 above, 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 the record holders of any class of Common Stock (the “**Purchase Rights**”), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage) immediately before 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, issuance or sale of such Purchase Rights (provided, however, that to the extent that the Holder’s right to participate in any such Purchase Right would result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to participate in such Purchase Right to the extent of the Maximum Percentage (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 the extent of any such excess) and such Purchase Right to such extent shall be held in abeyance for the benefit of the Holder until such time or times, if ever, as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the 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 held similarly in abeyance) to the same extent as if there had been no such limitation).

(b) Fundamental Transactions. The Company shall not enter into or be party to a Fundamental Transaction unless the Successor Entity assumes in writing all of the obligations of the Company under this Warrant and the other Transaction Documents (as defined in the Securities Purchase Agreement) in accordance with the provisions of this Section 4(b) pursuant to written agreements in form and substance satisfactory to the Holder and approved by the Holder prior to such Fundamental Transaction, including agreements to deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant, including, without limitation, which is exercisable for a corresponding number of shares of capital stock equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise 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 adjustments to the number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction). Upon the consummation of each Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of the applicable Fundamental Transaction, the provisions of this Warrant 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 Warrant and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Company herein. Upon consummation of each Fundamental Transaction, the Successor Entity shall deliver to the Holder confirmation that there shall be issued upon exercise of this Warrant at any time after the consummation of the applicable 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 3 and 4(a) above, which shall continue to be receivable thereafter)) issuable upon the exercise of this Warrant prior to the applicable Fundamental Transaction, such shares of publicly traded common stock (or its equivalent) of the Successor Entity (including its Parent Entity) which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant), as adjusted in accordance with the provisions of this Warrant. Notwithstanding the foregoing, and without limiting Section 1(f) hereof, the Holder may elect, at its sole option, by delivery of written notice to the Company to waive this Section 4(b) to permit the Fundamental Transaction without the assumption of this Warrant. In addition to and not in substitution for any other rights hereunder, prior to the consummation of each 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 the Holder will thereafter have the right to receive upon an exercise of this Warrant at any time after the consummation of the applicable Fundamental Transaction but prior to the Expiration Date, in lieu of the shares of the Common Stock (or other securities, cash, assets or other property (except such items still issuable under Sections 3 and 4(a) above, which shall continue to be receivable thereafter)) issuable upon the exercise of the Warrant prior to such Fundamental Transaction, such shares of stock, securities, cash, assets or any other property whatsoever (including warrants or other purchase or subscription rights) (the “**Corporate Event Consideration**”) which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant). Provision made pursuant to the preceding sentence shall be in a form and substance reasonably satisfactory to the Holder.

(c) [Intentionally Omitted]

(d) Application. The provisions of this Section 4 shall apply similarly and equally to successive Fundamental Transactions and Corporate Events and shall be applied as if this Warrant (and any such subsequent warrants) were fully exercisable and without regard to any limitations on the exercise of this Warrant (provided that the Holder shall continue to be entitled to the benefit of the Maximum Percentage, applied however with respect to shares of capital stock registered under the 1934 Act and thereafter receivable upon exercise of this Warrant (or any such other warrant)).

5. 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, issuance 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 Warrant, and will at all times in good faith carry out all the provisions of this Warrant and take all action as may be required to protect the rights of the Holder. Without limiting the generality of the foregoing, the Company (a) shall not increase the par value of any shares of Common Stock receivable upon the exercise of this Warrant above the Exercise Price then in effect, and (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 exercise of this Warrant. Notwithstanding anything herein to the contrary, if after the sixty (60) calendar day anniversary of the Stockholder Approval Date, the Holder is not permitted to exercise this Warrant in full for any reason (other than pursuant to restrictions set forth in Section 1(f) hereof), the Company shall use its best efforts to promptly remedy such failure, including, without limitation, obtaining such consents or approvals as necessary to permit such exercise into shares of Common Stock.

6. WARRANT HOLDER NOT DEEMED A STOCKHOLDER. Except as otherwise specifically provided herein, the Holder, solely in its capacity as a holder of this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of share capital of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in its capacity as the Holder of this Warrant, any of the rights of a stockholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of stock, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which it is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a stockholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company. Notwithstanding this Section 6, the Company shall provide the Holder with copies of the same notices and other information given to the stockholders of the Company generally, contemporaneously with the giving thereof to the stockholders.

7. REISSUANCE OF WARRANTS.

(a) Transfer of Warrant. If this Warrant is to be transferred, the Holder shall surrender this Warrant to the Company, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Warrant (in accordance with Section 7(d)), registered as the Holder may request, representing the right to purchase the number of Warrant Shares being transferred by the Holder and, if less than the total number of Warrant Shares then underlying this Warrant is being transferred, a new Warrant (in accordance with Section 7(d)) to the Holder representing the right to purchase the number of Warrant Shares not being transferred.

(b) Lost, Stolen or Mutilated Warrant. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant (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 Holder to the Company in customary and reasonable form and, in the case of mutilation, upon surrender and cancellation of this Warrant, the Company shall execute and deliver to the Holder a new Warrant (in accordance with Section 7(d)) representing the right to purchase the Warrant Shares then underlying this Warrant.

(c) Exchangeable for Multiple Warrants. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for a new Warrant or Warrants (in accordance with Section 7(d)) representing in the aggregate the right to purchase the number of Warrant Shares then underlying this Warrant, and each such new Warrant will represent the right to purchase such portion of such Warrant Shares as is designated by the Holder at the time of such surrender; provided, however, no warrants for fractional shares of Common Stock shall be given.

(d) Issuance of New Warrants. Whenever the Company is required to issue a new Warrant pursuant to the terms of this Warrant, such new Warrant (i) shall be of like tenor with this Warrant, (ii) shall represent, as indicated on the face of such new Warrant, the right to purchase the Warrant Shares then underlying this Warrant (or in the case of a new Warrant being issued pursuant to Section 7(a) or Section 7(c), the Warrant Shares designated by the Holder which, when added to the number of shares of Common Stock underlying the other new Warrants issued in connection with such issuance, does not exceed the number of Warrant Shares then underlying this Warrant), (iii) shall have an issuance date, as indicated on the face of such new Warrant which is the same as the Issuance Date, and (iv) shall have the same rights and conditions as this Warrant.

8. **NOTICES.** Whenever notice is required to be given under this Warrant, unless otherwise provided herein, such notice shall be given in accordance with Section 9(f) of the Securities Purchase Agreement. The Company shall provide the Holder with prompt written notice of all actions taken pursuant to this Warrant (other than the issuance of shares of Common Stock upon exercise in accordance with the terms hereof), including in reasonable detail a description of such action and the reason therefor. Without limiting the generality of the foregoing, the Company will give written notice to the Holder (i) immediately upon each adjustment of the Exercise Price and the number of Warrant Shares, setting forth in reasonable detail, and certifying, the calculation of such adjustment(s), (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 shares of Common Stock, or (B) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation, provided in each case that such information shall be made known to the public prior to or in conjunction with such notice being provided to the Holder, and (iii) at least ten (10) Trading Days prior to the consummation of any Fundamental Transaction. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any of its Subsidiaries, the Company shall simultaneously file such notice with the SEC (as defined in the Securities Purchase Agreement) pursuant to a Current Report on Form 8-K. If the Company or any of its Subsidiaries provides material non-public information to the Holder that is not simultaneously filed in a Current Report on Form 8-K and the Holder has not agreed to receive such material non-public information, the Company hereby covenants and agrees that the Holder shall not have any duty of confidentiality to the Company, any of its Subsidiaries or any of their respective officers, directors, employees, affiliates or agents with respect to, or a duty to any of the foregoing not to trade on the basis of, such material non-public information. It is expressly understood and agreed that the time of execution specified by the Holder in each Exercise Notice shall be definitive and may not be disputed or challenged by the Company.

9. **DISCLOSURE.** Upon delivery by the Company to the Holder (or receipt by the Company from the Holder) of any notice in accordance with the terms of this Warrant, 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 shall on or prior to 9:00 am, New York city time on the Business Day immediately following such notice delivery date, 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 the Holder explicitly in writing in such notice (or immediately upon receipt of notice from the Holder, as applicable), and in the absence of any such written indication in such notice (or notification from the Company immediately upon receipt of notice from the Holder), the Holder shall be entitled to presume that information contained in the notice does not constitute material, non-public information relating to the Company or any of its Subsidiaries. Nothing contained in this Section 9 shall limit any obligations of the Company, or any rights of the Holder, under Section 4(i) of the Securities Purchase Agreement.

10. **ABSENCE OF TRADING AND DISCLOSURE RESTRICTIONS.** The Company acknowledges and agrees that the Holder is not a fiduciary or agent of the Company and that the Holder shall have no obligation to (a) maintain the confidentiality of any information provided by the Company or (b) refrain from trading any securities while in possession of such information in the absence of a written non-disclosure agreement signed by an officer of the Holder that explicitly provides for such confidentiality and trading restrictions. In the absence of such an executed, written non-disclosure agreement, the Company acknowledges that the Holder may freely trade in any securities issued by the Company, may possess and use any information provided by the Company in connection with such trading activity, and may disclose any such information to any third party.

11. AMENDMENT AND WAIVER. Except as otherwise provided herein, the provisions of this Warrant (other than Section 1(f) above and this Section 11, which may not be amended, modified or waived) may be amended and the Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the Holder. No waiver shall be effective unless it is in writing and signed by an authorized representative of the waiving party.

12. SEVERABILITY. If any provision of this Warrant 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 Warrant so long as this Warrant 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).

13. GOVERNING LAW. This Warrant shall be governed by and construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Warrant shall be governed by, the internal laws of the State of New York, without giving effect to any provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York. The Company 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 to the Company at the address set forth in Section 9(f) of the Securities Purchase Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. 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 or operate to preclude the Holder from bringing suit or taking other legal action against the Company in any other jurisdiction to collect on the Company's obligations to the Holder, to realize on any collateral or any other security for such obligations, or to enforce a judgment or other court ruling in favor of the Holder. **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 WARRANT OR ANY TRANSACTION CONTEMPLATED HEREBY.**

14. CONSTRUCTION; HEADINGS. This Warrant shall be deemed to be jointly drafted by the Company and the Holder and shall not be construed against any Person as the drafter hereof. The headings of this Warrant are for convenience of reference and shall not form part of, or affect the interpretation of, this Warrant. Terms used in this Warrant but defined in the other Transaction Documents shall have the meanings ascribed to such terms on the Closing Date (as defined in the Securities Purchase Agreement) in such other Transaction Documents unless otherwise consented to in writing by the Holder.

15. DISPUTE RESOLUTION.

(a) Submission to Dispute Resolution.

(i) In the case of a dispute relating to the Exercise Price, the Closing Sale Price, the Bid Price or fair market value or the arithmetic calculation of the number of Warrant Shares (as the case may be) (including, without limitation, a dispute relating to the determination of any of the foregoing), the Company or the Holder (as the case may be) shall submit the dispute to the other party via facsimile (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 the Holder, at any time after the Holder learned of the circumstances giving rise to such dispute. If the Holder and the Company are unable to promptly resolve such dispute relating to such Exercise Price, such Closing Sale Price, such Bid Price or such fair market value or such arithmetic calculation of the number of Warrant Shares (as the case may be), at any time after the second (2nd) Business Day following such initial notice by the Company or the Holder (as the case may be) of such dispute to the Company or the Holder (as the case may be), then the Holder may, at its sole option, select an independent, reputable investment bank to resolve such dispute.

(ii) The 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 15 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 the 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 the 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 the Holder or otherwise requested by such investment bank, neither the Company nor the 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 the Holder shall cause such investment bank to determine the resolution of such dispute and notify the Company and the 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 15 constitutes an agreement to arbitrate between the Company and the Holder (and constitutes an arbitration agreement) under the rules then in effect § 7501, et seq. of the New York Civil Practice Law and Rules ("CPLR") and that the Holder is authorized to apply for an order to compel arbitration pursuant to CPLR § 7503(a) in order to compel compliance with this Section 15, (ii) a dispute relating to the Exercise Price includes, without limitation, disputes as to (A) whether an issuance or sale or deemed issuance or sale of Common Stock occurred under Section 2(b), (B) the consideration per share at which an issuance or deemed issuance of Common Stock occurred, (C) whether any issuance or sale or deemed issuance or sale of Common Stock was an issuance or sale or deemed issuance or sale of Excluded Securities, (D) whether an agreement, instrument, security or the like constitutes and Option or Convertible Security and (E) whether a Dilutive Issuance occurred, (iii) the terms of this Warrant 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 Warrant and any other applicable Transaction Documents, (iv) the Holder (and only the Holder), in its sole discretion, shall have the right to submit any dispute described in this Section 15 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 15 and (v) nothing in this Section 15 shall limit the Holder from obtaining any injunctive relief or other equitable remedies (including, without limitation, with respect to any matters described in this Section 15).

16. REMEDIES, CHARACTERIZATION, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant and 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 the right of the Holder to pursue actual and consequential damages for any failure by the Company to comply with the terms of this Warrant. 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, exercises 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 of this Warrant shall be entitled, in addition to all other available remedies, to specific performance and/or temporary, preliminary and permanent injunctive or other equitable relief from any court of competent jurisdiction in any such case without the necessity of proving actual damages and without posting a bond or other security. 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 Warrant (including, without limitation, compliance with Section 2 hereof). The issuance of shares and certificates for shares as contemplated hereby upon the exercise of this Warrant shall be made without charge to the Holder or such shares for any issuance tax or other costs in respect thereof, provided that the Company shall not be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of any certificate in a name other than the Holder or its agent on its behalf.

17. PAYMENT OF COLLECTION, ENFORCEMENT AND OTHER COSTS. If (a) this Warrant is placed in the hands of an attorney for collection or enforcement or is collected or enforced through any legal proceeding or the holder otherwise takes action to collect amounts due under this Warrant or to enforce the provisions of this Warrant or (b) there occurs any bankruptcy, reorganization, receivership of the company or other proceedings affecting company creditors' rights and involving a claim under this Warrant, then the Company shall pay the costs incurred by the Holder for such collection, enforcement or action or in connection with such bankruptcy, reorganization, receivership or other proceeding, including, without limitation, attorneys' fees and disbursements.

18. TRANSFER. THIS WARRANT MAY BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED WITHOUT THE CONSENT OF THE COMPANY, EXCEPT AS MAY OTHERWISE BE REQUIRED BY SECTION 2(G) OF THE SECURITIES PURCHASE AGREEMENT.

19. CERTAIN DEFINITIONS. FOR PURPOSES OF THIS WARRANT, THE FOLLOWING TERMS SHALL HAVE THE FOLLOWING MEANINGS:

(a) “**1933 Act**” means the Securities Act of 1933, as amended, and the rules and regulations thereunder.

(b) “**1934 Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

(c) [Intentionally Omitted]

(d) “**Affiliate**” means, with respect to any Person, any other Person that directly or indirectly controls, is controlled by, or is under common control with, such Person, it being understood for purposes of this definition that “control” of a Person means the power directly or indirectly either to vote 10% or more of the stock having ordinary voting power for the election of directors of such Person or direct or cause the direction of the management and policies of such Person whether by contract or otherwise.

(e) [Intentionally Omitted]

(f) “**Attribution Parties**” means, collectively, the following Persons and entities: (i) any investment vehicle, including, any funds, feeder funds or managed accounts, currently, or from time to time after the Issuance Date, directly or indirectly managed or advised by the Holder’s investment manager or any of its Affiliates or principals, (ii) any direct or indirect Affiliates of the Holder or any of the foregoing, (iii) any Person acting or who could be deemed to be acting as a Group together with the Holder or any of the foregoing and (iv) any other Persons whose beneficial ownership of the Company’s Common Stock would or could be aggregated with the Holder’s and the other Attribution Parties for purposes of Section 13(d) of the 1934 Act. For clarity, the purpose of the foregoing is to subject collectively the Holder and all other Attribution Parties to the Maximum Percentage.

(g) “**Bid Price**” means, for any security as of the particular time of determination, the bid price for such security on the Principal Market as reported by Bloomberg as of such time of determination, or, if the Principal Market is not the principal securities exchange or trading market for such security, the bid price of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg as of such time of determination, or if the foregoing does not apply, the bid price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg as of such time of determination, or, if no bid price is reported for such security by Bloomberg as of such time of determination, the average of the bid prices of any market makers for such security as reported in The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices) as of such time of determination. If the Bid Price cannot be calculated for a security as of the particular time of determination on any of the foregoing bases, the Bid Price of such security as of such time of determination shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder 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 15. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during such period.

(h) [Intentionally Omitted]

(i) “**Bloomberg**” means Bloomberg, L.P.

(j) “**Business Day**” means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to “stay at home”, “shelter-in-place”, “non-essential employee” or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

(k) “**Change of Control**” means (i) any Fundamental Transaction other than (A) any merger of the Company or any of its, direct or indirect, wholly-owned Subsidiaries with or into any of the foregoing Persons, (B) 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, the 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 (C) pursuant to a migratory merger effected solely for the purpose of changing the jurisdiction of incorporation of the Company or any of its Subsidiaries or (ii) any Going-Private Transaction.

(l) “**Closing Sale Price**” means, for any security as of any date, the last closing trade price 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 trade price, then the last trade price 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 trade price 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 does not apply, the last trade price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no last trade price is reported for such security by Bloomberg, the average of the ask prices of any market makers for such security as reported in The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices). If the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Sale Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder 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 15. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during such period.

(m) “**Common Shares**” has the meaning ascribed to such term in the Securities Purchase Agreement.

(n) “**Common Stock**” means (i) the Company’s shares of common stock, \$0.001 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.

(o) “**Common Stock Deemed Outstanding**” means, at any given time, the number of shares of Common Stock actually outstanding at such time, plus the number of shares of Common Stock deemed to be outstanding pursuant to Sections 2(b)(i) and 2(b)(ii) hereof regardless of whether the Options or Convertible Securities are actually exercisable at such time, but excluding any shares of Common Stock owned or held by or for the account of the Company or issuable upon exercise, as applicable, of the SPA Warrants.

(p) “**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.

(q) “**Eligible Market**” means The New York Stock Exchange, the NYSE American, the Nasdaq Global Select Market, the Nasdaq Global Market or the Nasdaq Capital Market.

(r) [Intentionally Omitted]

(s) “**Expiration Date**” means the date that is the fifth (5th) anniversary of the Stockholder Approval Date or, if such date falls on a day other than a Trading Day or on which trading does not take place on the Principal Market (a “**Holiday**”), the next date that is not a Holiday.

(t) “**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 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 1934 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 1934 Act) of at least 50% of the outstanding shares of Common Stock, or (v) reorganize, recapitalize or reclassify its 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 1934 Act), directly or indirectly, whether through acquisition, 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 Common Stock, (y) at least 50% of the aggregate ordinary voting power represented by issued and outstanding Common Stock not held by all such Subject Entities as of the date of this Warrant 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 or (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.

- (u) “**Going-Private Transaction**” means any transaction after which the Common Stock of the Company (or any Successor Entity) ceases to be registered under the 1934 Act.
- (v) “**Group**” means a “group” as that term is used in Section 13(d) of the 1934 Act and as defined in Rule 13d-5 thereunder.
- (w) “**Options**” means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.
- (x) “**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 Fundamental Transaction.
- (y) “**Person**” means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity or a government or any department or agency thereof.
- (z) “**Principal Market**” means the Nasdaq Capital Market.
- (aa) “**Registration Rights Agreement**” means that certain registration rights agreement, dated as of the Closing Date, by and among the Company and the initial holders of the Common Shares relating to, among other things, the registration of the resale of the Common Shares and shares of Common Stock issuable upon exercise of the SPA Warrants, as may be amended from time to time.
- (bb) “**SEC**” means the United States Securities and Exchange Commission or the successor thereto.
- (cc) “**Subject Entity**” means any Person, Persons or Group or any Affiliate or associate of any such Person, Persons or Group.
- (dd) “**Successor Entity**” means the Person (or, if so elected by the Holder, the Parent Entity) formed by, resulting from or surviving any Fundamental Transaction or the Person (or, if so elected by the Holder, the Parent Entity) with which such Fundamental Transaction shall have been entered into.

(ee) “**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 Holder or (y) with respect to all determinations other than price or trading volume 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.

(ff) “**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 a.m., New York time, and ending at 4:00 p.m., New York time, as reported by Bloomberg through its “VAP” function (set to 09:30 start time and 16:00 end time) 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 a.m., New York time, and ending at 4:00 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 Open Market (or a similar organization or agency succeeding to its functions of reporting prices). 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 Holder. If the Company and the Holder 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 15. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination, recapitalization or other similar transaction during such period.

[signature page follows]

IN WITNESS WHEREOF, the Company has caused this Warrant to Purchase Common Stock to be duly executed as of the Issuance Date set out above.

MARKER THERAPEUTICS, INC.

By: _____

Name:

Title:

EXERCISE NOTICE

TO BE EXECUTED BY THE REGISTERED HOLDER TO EXERCISE THIS
SERIES B PREPAID WARRANT TO PURCHASE COMMON STOCK

MARKER THERAPEUTICS, INC.

The undersigned holder hereby elects to exercise the Series B Prepaid Warrant to Purchase Common Stock No. _____ (the "**Warrant**") of Marker Therapeutics, Inc., a Delaware corporation (the "**Company**") as specified below. Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

1. Form of Exercise Price. The Holder intends that payment of the Aggregate Exercise Price shall be made as:

- a "Cash Exercise" with respect to _____ Warrant Shares; and/or
- a "Cashless Exercise" with respect to _____ Warrant Shares.

In the event that the Holder has elected a Cashless Exercise with respect to some or all of the Warrant Shares to be issued pursuant hereto, the Holder hereby represents and warrants that (i) this Exercise Notice was executed by the Holder at _____ [a.m.][p.m.] on the date set forth below and (ii) if applicable, the Bid Price as of such time of execution of this Exercise Notice was \$ _____.

2. Payment of Exercise Price. In the event that the Holder has elected a Cash Exercise with respect to some or all of the Warrant Shares to be issued pursuant hereto, the Holder shall pay the Aggregate Exercise Price in the sum of \$ _____ to the Company in accordance with the terms of the Warrant.

3. Delivery of Warrant Shares. The Company shall deliver to Holder, or its designee or agent as specified below, _____ shares of Common Stock in accordance with the terms of the Warrant. Delivery shall be made 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:

ACKNOWLEDGMENT

The Company hereby acknowledges this Exercise 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 Company and acknowledged and agreed to by _____.

MARKER THERAPEUTICS, INC.

By: _____
Name:
Title:

[FORM OF SERIES A WARRANT]

NEITHER THE ISSUANCE AND SALE OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE NOR THE SECURITIES INTO WHICH THESE SECURITIES ARE EXERCISABLE HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR (B) AN OPINION OF COUNSEL TO THE HOLDER (IF REQUESTED BY THE COMPANY), IN A FORM REASONABLY ACCEPTABLE TO THE COMPANY, THAT REGISTRATION IS NOT REQUIRED UNDER SAID ACT OR (II) UNLESS SOLD OR ELIGIBLE TO BE SOLD PURSUANT TO RULE 144 OR RULE 144A UNDER SAID ACT. NOTWITHSTANDING THE FOREGOING, THE SECURITIES MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN OR FINANCING ARRANGEMENT SECURED BY THE SECURITIES. THE NUMBER OF SHARES OF COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT MAY BE LESS THAN THE AMOUNTS SET FORTH ON THE FACE HEREOF PURSUANT TO SECTION 1(a) OF THIS WARRANT.

MARKER THERAPEUTICS, INC.

SERIES A WARRANT TO PURCHASE COMMON STOCK

Series A Warrant No.:

Date of Issuance: [], 20__ (“**Issuance Date**”)

Marker Therapeutics, Inc., a Delaware corporation (the “**Company**”), hereby certifies that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, _____, the registered holder hereof or its permitted assigns (the “**Holder**”), is entitled, subject to the terms set forth below, to purchase from the Company, at the Exercise Price (as defined below) then in effect, upon exercise of this Series A Warrant to Purchase Common Stock (including any A Warrants to Purchase Common Stock issued in exchange, transfer or replacement hereof, the “**Warrant**”), at any time or times on or after the Stockholder Approval Date, but not after 11:59 p.m., New York time, on the Expiration Date (as defined below), _____¹ (subject to adjustment as provided herein) fully paid and non-assessable shares of Common Stock (as defined below) (the “**Warrant Shares**”, and such number of Warrant Shares, the “**Warrant Number**”). Except as otherwise defined herein, capitalized terms in this Warrant shall have the meanings set forth in Section 19. This Warrant is one of the Warrants to Purchase Common Stock (the “**SPA Warrants**”) issued pursuant to Section 1 of that certain Securities Purchase Agreement, dated as of December 19, 2024 (the “**Subscription Date**”), by and among the Company and the investors (the “**Buyers**”) referred to therein, as amended from time to time (the “**Securities Purchase Agreement**”).

¹ 100% Warrant coverage

1. EXERCISE OF WARRANT

(a) **Mechanics of Exercise.** Subject to the terms and conditions hereof (including, without limitation, the limitations set forth in Section 1(f)), this Warrant may be exercised by the Holder on any day on or after the Stockholder Approval Date (an “**Exercise Date**”), in whole or in part, by delivery (whether via facsimile or otherwise) of a written notice, in the form attached hereto as **Exhibit A** (the “**Exercise Notice**”), of the Holder’s election to exercise this Warrant. Within one (1) Trading Day following an exercise of this Warrant as aforesaid, the Holder shall deliver payment to the Company of an amount equal to the Exercise Price in effect on the date of such exercise multiplied by the number of Warrant Shares as to which this Warrant was so exercised (the “**Aggregate Exercise Price**”) in cash or via wire transfer of immediately available funds if the Holder did not notify the Company in such Exercise Notice that such exercise was made pursuant to a Cashless Exercise (as defined in Section 1(d)). The Holder shall not be required to deliver the original of this Warrant in order to effect an exercise hereunder. Execution and delivery of an Exercise Notice with respect to less than all of the Warrant Shares shall have the same effect as cancellation of the original of this Warrant and issuance of a new Warrant evidencing the right to purchase the remaining number of Warrant Shares. Execution and delivery of an Exercise Notice for all of the then-remaining Warrant Shares shall have the same effect as cancellation of the original of this Warrant after delivery of the Warrant Shares in accordance with the terms hereof. On the date on which the Company has received an Exercise Notice, the Company shall transmit by facsimile or electronic mail an acknowledgment of confirmation of receipt of such Exercise Notice, in the form attached hereto as **Exhibit B**, to the Holder and the Company’s transfer agent (the “**Transfer Agent**”), which confirmation shall constitute an instruction to the Transfer Agent to process such Exercise Notice in accordance with the terms herein. On or before the first (1st) Trading Day following the date on which the Company has received such Exercise 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 of such Warrant Shares initiated on the applicable Exercise Date), the Company shall (X) provided that the Transfer Agent is participating in The Depository Trust Company (“**DTC**”) Fast Automated Securities Transfer Program, upon the request of the Holder, credit such aggregate number of shares of Common Stock to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit/Withdrawal at Custodian system, or (Y) if the Transfer Agent is not participating in the DTC Fast Automated Securities Transfer Program (“**FAST**”), upon the request of the Holder, issue and deliver (via reputable overnight courier) to the address as specified in the Exercise Notice, a certificate, registered in the name of the Holder or its designee, for the number of shares of Common Stock to which the Holder shall be entitled pursuant to such exercise. Upon delivery of an Exercise Notice, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date such Warrant Shares are credited to the Holder’s DTC account or the date of delivery of the certificates evidencing such Warrant Shares (as the case may be); provided, that the Holder shall be deemed to have waived any voting rights of any such Warrant Shares during the period commencing on such Exercise Date, through, and including, such applicable Share Delivery Date (as defined below) (each, an “**Exercise Period**”), as necessary, such that the aggregate voting rights of any Common Stock (including such Warrant Shares) beneficially owned by the Holder and/or any Attribution Parties, collectively, on any such date of determination shall not exceed the Maximum Percentage (as defined below) as a result of any such exercise of this Warrant. If this Warrant is submitted in connection with any exercise pursuant to this Section 1(a) and the number of Warrant Shares represented by this Warrant submitted for exercise is greater than the number of Warrant Shares being acquired upon an exercise and upon surrender of this Warrant to the Company by the Holder, then, at the request of the Holder, the Company shall as soon as practicable and in no event later than one (1) Business Day after any exercise and at its own expense, issue and deliver to the Holder (or its designee) a new Warrant (in accordance with Section 7(d)) representing the right to purchase the number of Warrant Shares purchasable immediately prior to such exercise under this Warrant, less the number of Warrant Shares with respect to which this Warrant is exercised. No fractional shares of Common Stock are to be issued upon the exercise of this Warrant, but rather the number of shares of Common Stock to be issued shall be rounded up to the nearest whole number. 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) that may be payable with respect to the issuance and delivery of Warrant Shares upon exercise of this Warrant. Notwithstanding the foregoing, except in the case where an exercise of this Warrant is validly made pursuant to a Cashless Exercise, the Company’s failure to deliver Warrant Shares to the Holder on or prior to the later of (i) one (1) Trading Day after receipt of the applicable Exercise 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 of such Warrant Shares initiated on the applicable Exercise Date) and (ii) the date of the Company’s receipt of the Aggregate Exercise Price (or valid notice of a Cashless Exercise) (such later date, the “**Share Delivery Date**”) shall not be deemed to be a breach of this Warrant. Notwithstanding anything to the contrary contained in this Warrant or the Registration Rights Agreement, after the effective date of the Registration Statement (as defined in the Registration Rights Agreement) and prior to the Holder’s receipt of the notice of a Grace Period (as defined in the Registration Rights Agreement), the Company shall cause the Transfer Agent to deliver unlegended shares of Common Stock to the Holder (or its designee) in connection with any sale of Registrable Securities (as defined in the Registration Rights Agreement) with respect to which the Holder has entered into a contract for sale, and delivered a copy of the prospectus included as part of the particular Registration Statement to the extent applicable, and for which the Holder has not yet settled. From the Issuance Date through and including the Expiration Date, the Company shall maintain a transfer agent that participates in FAST.

(b) Exercise Price. For purposes of this Warrant, “**Exercise Price**” means \$4.00, subject to adjustment as provided herein.

(c) Company’s Failure to Timely Deliver Securities. If the Company shall fail, for any reason or for no reason, on or prior to the Share Delivery Date, either (I) if the Transfer Agent is not participating in FAST, to issue and deliver to the Holder (or its designee) a certificate for the number of Warrant Shares to which the Holder is entitled and register such Warrant Shares on the Company’s share register or, if the Transfer Agent is participating in FAST, to credit the balance account of the Holder or the Holder’s designee with DTC for such number of Warrant Shares to which the Holder is entitled upon the Holder’s exercise of this Warrant (as the case may be) or (II) if a Registration Statement covering the resale of the Warrant Shares that are the subject of the Exercise Notice (the “**Unavailable Warrant Shares**”) is not available for the resale of such Unavailable Warrant Shares and the Company fails to promptly, but in no event later than as required pursuant to the Registration Rights Agreement (x) so notify the Holder and (y) deliver the Warrant Shares electronically without any restrictive legend by crediting such aggregate number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit/Withdrawal At Custodian system (the event described in the immediately foregoing clause (II) is hereinafter referred to as a “**Notice Failure**” and together with the event described in clause (I) above, a “**Delivery Failure**”), then, in addition to all other remedies available to the Holder, (X) the Company shall pay in cash to the Holder on each day after the Share Delivery Date and during such Delivery Failure an amount equal to 1% of the product of (A) the sum of the number of shares of Common Stock not issued to the Holder on or prior to the Share Delivery Date and to which the Holder is entitled, multiplied by (B) any trading price of the Common Stock selected by the Holder in writing as in effect at any time during the period beginning on the applicable Exercise Date and ending on the applicable Share Delivery Date, and (Y) the Holder, upon written notice to the Company, may void its Exercise Notice with respect to, and retain or have returned, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the voiding of an Exercise Notice shall not affect the Company’s obligations to make any payments which have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise. In addition to the foregoing, if on or prior to the Share Delivery Date either (I) the Transfer Agent is not participating in the DTC Fast Automated Securities Transfer Program, the Company shall fail to issue and deliver to the Holder (or its designee) a certificate and register such shares of Common Stock on the Company’s share register or, if the Transfer Agent is participating in the DTC Fast Automated Securities Transfer Program, the Transfer Agent shall fail to credit the balance account of the Holder or the Holder’s designee with DTC for the number of shares of Common Stock to which the Holder is entitled upon the Holder’s exercise hereunder or pursuant to the Company’s obligation pursuant to clause (ii) below or (II) a Notice Failure occurs, and if on or after such Share Delivery Date the Holder acquires (in an open market transaction, stock loan or otherwise) shares of Common Stock corresponding to all or any portion of the number of shares of Common Stock issuable upon such exercise that the Holder is entitled to receive from the Company and has not received from the Company in connection with such Delivery Failure or Notice Failure, as applicable (a “**Buy-In**”), then, in addition to all other remedies available to the Holder, the Company shall, within two (2) Business Days after the Holder’s request and in the Holder’s discretion, either (i) pay cash to the Holder in an amount equal to the Holder’s total purchase price (including brokerage commissions, stock loan costs and other out-of-pocket expenses, if any) for the shares of Common Stock so acquired (including, without limitation, by any other Person in respect, or on behalf, of the Holder) (the “**Buy-In Price**”), at which point the Company’s obligation to so issue and deliver such certificate (and to issue such shares of Common Stock) or credit the balance account of such Holder or such Holder’s designee, as applicable, with DTC for the number of Warrant Shares to which the Holder is entitled upon the Holder’s exercise hereunder (as the case may be) (and to issue such Warrant Shares) shall terminate, or (ii) promptly honor its obligation to so issue and deliver to the Holder a certificate or certificates representing such Warrant Shares or credit the balance account of such Holder or such Holder’s designee, as applicable, with DTC for the number of Warrant Shares to which the Holder is entitled upon the Holder’s exercise hereunder (as the case may be) and pay cash to the Holder in an amount equal to the excess (if any) of the Buy-In Price over the product of (A) such number of Warrant Shares multiplied by (B) the lowest Closing Sale Price of the Common Stock on any Trading Day during the period commencing on the date of the applicable Exercise Notice and ending on the date of such issuance and payment under this clause (ii) (the “**Buy-In Payment Amount**”). Nothing shall limit the Holder’s right to pursue any other remedies available to it hereunder, at law or in equity, including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company’s failure to timely deliver certificates representing shares of Common Stock (or to electronically deliver such shares of Common Stock) upon the exercise of this Warrant as required pursuant to the terms hereof. While this Warrant is outstanding, the Company shall cause its transfer agent to participate in FAST. In addition to the foregoing rights, (i) if the Company fails to deliver the applicable number of Warrant Shares upon an exercise pursuant to Section 1 by the applicable Share Delivery Date, then the Holder shall have the right to rescind such exercise in whole or in part and retain and/or have the Company return, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the rescission of an exercise shall not affect the Company’s obligation to make any payments that have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise, and (ii) if a registration statement covering the issuance or resale of the Warrant Shares that are subject to an Exercise Notice is not available for the issuance or resale, as applicable, of such Warrant Shares and the Holder has submitted an Exercise Notice prior to receiving notice of the non-availability of such registration statement and the Company has not already delivered the Warrant Shares underlying such Exercise Notice electronically without any restrictive legend by crediting such aggregate number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the Holder’s or its designee’s balance account with DTC through its Deposit / Withdrawal At Custodian system, the Holder shall have the option, by delivery of notice to the Company, to (x) rescind such Exercise Notice in whole or in part and retain or have returned, as the case may be, any portion of this Warrant that has not been exercised pursuant to such Exercise Notice; provided that the rescission of an Exercise Notice shall not affect the Company’s obligation to make any payments that have accrued prior to the date of such notice pursuant to this Section 1(c) or otherwise, and/or (y) switch some or all of such Exercise Notice from a cash exercise to a Cashless Exercise.

(d) Cashless Exercise. Notwithstanding anything contained herein to the contrary (other than Section 1(f) below), at any time after the six month anniversary of the Closing Date, if at the time of exercise hereof a Registration Statement (as defined in the Registration Rights Agreement) is not effective (or the prospectus contained therein is not available for use) for the resale by the Holder of all of the Warrant Shares, then the Holder may, in its sole discretion, exercise this Warrant in whole or in part and, in lieu of making the cash payment otherwise contemplated to be made to the Company upon such exercise in payment of the Aggregate Exercise Price, elect instead to receive upon such exercise the “Net Number” of Warrant Shares determined according to the following formula (a “**Cashless Exercise**”):

$$\text{Net Number} = \frac{(A \times B) - (A \times C)}{B}$$

For purposes of the foregoing formula:

A= the total number of shares with respect to which this Warrant is then being exercised.

B = as elected by the Holder: (i) the VWAP of the shares of Common Stock on the Trading Day immediately preceding the date of the applicable Exercise Notice if such Exercise Notice is (1) both executed and delivered pursuant to Section 1(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 1(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Exercise Notice or (z) the Bid Price of the shares of Common Stock as of the time of the Holder’s execution of the applicable Exercise Notice if such Exercise Notice is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter pursuant to Section 1(a) hereof, or (iii) the Closing Sale Price of the Common Stock on the date of the applicable Exercise Notice if the date of such Exercise Notice is a Trading Day and such Exercise Notice is both executed and delivered pursuant to Section 1(a) hereof after the close of “regular trading hours” on such Trading Day.

C = the Exercise Price then in effect for the applicable Warrant Shares at the time of such exercise.

If the Warrant Shares are issued in a Cashless Exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the 1933 Act, the Warrant Shares take on the registered characteristics of the Warrants being exercised. For purposes of Rule 144(d) promulgated under the 1933 Act, as in effect on the Subscription Date, it is intended that the Warrant Shares issued in a Cashless Exercise shall be deemed to have been acquired by the Holder, and the holding period for the Warrant Shares shall be deemed to have commenced, on the date this Warrant was originally issued pursuant to the Securities Purchase Agreement.

(e) Disputes. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the number of Warrant Shares to be issued pursuant to the terms hereof, the Company shall promptly issue to the Holder the number of Warrant Shares that are not disputed and resolve such dispute in accordance with Section 15.

(f) Limitations on Exercises.

(i) Beneficial Ownership. The Company shall not effect the exercise of any portion of this Warrant, and the Holder shall not have the right to exercise any portion of this Warrant, pursuant to the terms and conditions of this Warrant and any such exercise shall be null and void and treated as if never made, to the extent that after giving effect to such exercise, the Holder together with the other Attribution Parties collectively would beneficially own in excess of [4.99][9.99]²% (the “**Maximum Percentage**”) of the shares of Common Stock outstanding immediately after giving effect to such exercise. For purposes of the foregoing sentence, the aggregate number of shares of Common Stock beneficially owned by the Holder and the other Attribution Parties shall include the number of shares of Common Stock held by the Holder and all other Attribution Parties plus the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which the determination of such sentence is being made, but shall exclude shares of Common Stock which would be issuable upon (A) exercise of the remaining, unexercised portion of this Warrant beneficially owned by the Holder or any of the other Attribution Parties and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company (including, without limitation, any convertible notes or convertible preferred stock or warrants, including other SPA Warrants) beneficially owned by the Holder or any other Attribution Party subject to a limitation on conversion or exercise analogous to the limitation contained in this Section 1(f)(i). For purposes of this Section 1(f)(i), beneficial ownership shall be calculated in accordance with Section 13(d) of the 1934 Act. For purposes of determining the number of outstanding shares of Common Stock the Holder may acquire upon the exercise of this Warrant without exceeding the Maximum Percentage, the Holder may rely on the number of outstanding shares of Common Stock as reflected in (x) the Company’s most recent Annual Report on Form 10-K, Quarterly Report on Form 10-Q, Current Report on Form 8-K or other public filing with the SEC, as the case may be, (y) a more recent public announcement by the Company or (z) any other written notice by the Company or the Transfer Agent, if any, setting forth the number of shares of Common Stock outstanding (the “**Reported Outstanding Share Number**”). If the Company receives an Exercise Notice from the Holder at a time when the actual number of outstanding shares of Common Stock is less than the Reported Outstanding Share Number, the Company shall (i) notify the Holder in writing of the number of shares of Common Stock then outstanding and, to the extent that such Exercise Notice would otherwise cause the Holder’s beneficial ownership, as determined pursuant to this Section 1(f)(i), to exceed the Maximum Percentage, the Holder must notify the Company of a reduced number of Warrant Shares to be acquired pursuant to such Exercise Notice (the number of shares by which such purchase is reduced, the “**Reduction Shares**”) and (ii) as soon as reasonably practicable, the Company shall return to the Holder any exercise price paid by the Holder for the Reduction Shares. For any reason at any time, upon the written or oral request of the Holder, the Company shall within one (1) Business Day confirm orally and in writing or by electronic mail to the 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 Company, including this Warrant, by the Holder and any other Attribution Party since the date as of which the Reported Outstanding Share Number was reported. In the event that the issuance of shares of Common Stock to the Holder upon exercise of this Warrant results in the Holder and the other Attribution Parties being deemed to beneficially own, in the aggregate, more than the Maximum Percentage of the number of outstanding shares of Common Stock (as determined under Section 13(d) of the 1934 Act), the number of shares so issued by which the Holder’s and the other Attribution Parties’ aggregate beneficial ownership exceeds the Maximum Percentage (the “**Excess Shares**”) shall be deemed null and void and shall be cancelled ab initio, and the Holder shall not have the power to vote or to transfer the Excess Shares. As soon as reasonably practicable after the issuance of the Excess Shares has been deemed null and void, the Company shall return to the Holder the exercise price paid by the Holder for the Excess Shares. Upon delivery of a written notice to the Company, the Holder may from time to time increase (with such increase not effective until the sixty-first (61st) day after delivery of such notice) or decrease the Maximum Percentage to any other percentage not in excess of 9.99% as specified in such notice; provided that (i) any such increase in the Maximum Percentage will not be effective until the sixty-first (61st) day after such notice is delivered to the Company and (ii) any such increase or decrease will apply only to the Holder and the other Attribution Parties and not to any other holder of SPA Warrants that is not an Attribution Party of the Holder. For purposes of clarity, the shares of Common Stock issuable pursuant to the terms of this Warrant in excess of the Maximum Percentage shall not be deemed to be beneficially owned by the Holder for any purpose including for purposes of Section 13(d) or Rule 16a-1(a)(1) of the 1934 Act. No prior inability to exercise this Warrant pursuant to this paragraph shall have any effect on the applicability of the provisions of this paragraph with respect to any subsequent determination of exercisability. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 1(f)(i) to the extent necessary to correct this paragraph or any portion of this paragraph which may be defective or inconsistent with the intended beneficial ownership limitation contained in this Section 1(f)(i) or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitation contained in this paragraph may not be waived or amended and shall apply to a successor holder of this Warrant. Notwithstanding the foregoing, if the Holder has elected as of the Subscription Date not to have this Section 1(f)(i) applicable to this Warrant (and solely to the extent the Holder has made such election on the signature page of the Holder to the Securities Purchase Agreement on or prior to the Subscription Date), this Section 1(f)(i) shall not be applicable to this Warrant.

² As elected on the signature page of the Holder to the Securities Purchase Agreement

(ii) Principal Market Regulation. Notwithstanding anything herein to the contrary, this Warrant is not exercisable until the Company shall have obtained the Stockholder Approval (as defined in the Securities Purchase Agreement). The date of such Stockholder Approval being referred to herein as the “Stockholder Approval Date.”

(g) Reservation of Shares.

(i) Required Reserve Amount. So long as this Warrant remains outstanding, the Company shall at all times keep reserved for issuance under this Warrant a number of shares of Common Stock at least equal to 100% of the maximum number of shares of Common Stock as shall be necessary to satisfy the Company’s obligation to issue shares of Common Stock under the SPA Warrants then outstanding (without regard to any limitations on exercise) (the “**Required Reserve Amount**”); provided that at no time shall the number of shares of Common Stock reserved pursuant to this Section 1(g)(i) be reduced other than proportionally in connection with any exercise or redemption of SPA Warrants or such other event covered by Section 2(a) below. The Required Reserve Amount (including, without limitation, each increase in the number of shares so reserved) shall be allocated pro rata among the holders of the SPA Warrants based on number of shares of Common Stock issuable upon exercise of SPA Warrants held by each holder on the Closing Date (without regard to any limitations on exercise) 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 SPA Warrants, 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 SPA Warrants shall be allocated to the remaining holders of SPA Warrants, pro rata based on the number of shares of Common Stock issuable upon exercise of the SPA Warrants then held by such holders (without regard to any limitations on exercise).

(ii) Insufficient Authorized Shares. If, notwithstanding Section 1(g)(i) above, and not in limitation thereof, at any time while any of the SPA Warrants remain outstanding, the Company does not have a sufficient number of authorized and unreserved shares of Common Stock to satisfy its obligation to reserve 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 all the SPA Warrants 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 sixty (60) 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 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. Notwithstanding the foregoing, if any such time of an Authorized Share Failure, the Company is able to obtain the written consent of a majority of the shares of its issued and outstanding shares of Common Stock to approve the increase in the number of authorized shares of Common Stock, the Company may satisfy this obligation by obtaining such consent and submitting for filing with the SEC an Information Statement on Schedule 14C. In the event that the Company is prohibited from issuing shares of Common Stock upon an exercise of this Warrant 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 unavailible number of shares of Common Stock, the “Authorization Failure Shares”), in lieu of delivering such Authorization Failure Shares to the Holder, the Company shall pay cash in exchange for the cancellation of such portion of this Warrant exercisable into such Authorization Failure Shares at a price equal to the sum of (i) the product of (x) such number of Authorization Failure Shares and (y) the greatest Closing Sale Price of the Common Stock on any Trading Day during the period commencing on the date the Holder delivers the applicable Exercise Notice with respect to such Authorization Failure Shares to the Company and ending on the date of such issuance and payment under this Section 1(g); and (ii) to the extent the Holder purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the Holder of Authorization Failure Shares, any Buy-In Payment Amount, brokerage commissions and other out-of-pocket expenses, if any, of the Holder incurred in connection therewith. Nothing contained in this Section 1(g) shall limit any obligations of the Company under any provision of the Securities Purchase Agreement.

2. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES. The Exercise Price and number of Warrant Shares issuable upon exercise of this Warrant are subject to adjustment from time to time as set forth in this Section 2.

(a) Stock Dividends and Splits. Without limiting any provision of Section 2(b), Section 3 or Section 4, if the Company, at any time on or after the Subscription Date, (i) pays a stock dividend on one or more classes of its then outstanding shares of Common Stock or otherwise makes a distribution on any class of capital stock that is payable in shares of Common Stock, (ii) subdivides (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of its then outstanding shares of Common Stock into a larger number of shares or (iii) combines (by combination, reverse stock split or otherwise) one or more classes of its then outstanding shares of Common Stock into a smaller number of shares, then in each such case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event. Any adjustment made pursuant to clause (i) of this paragraph shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution, and any adjustment pursuant to clause (ii) or (iii) of this paragraph shall become effective immediately after the effective date of such subdivision or combination. If any event requiring an adjustment under this paragraph occurs during the period that an Exercise Price is calculated hereunder, then the calculation of such Exercise Price shall be adjusted appropriately to reflect such event.

(b) Adjustment Upon Issuance of Shares of Common Stock. If and whenever on or after the Subscription Date, the Company grants, issues or sells (or enters into any agreement to grant, issue or sell), or in accordance with this Section 2 is deemed to have granted, issued or sold, any shares of Common Stock (including the issuance or sale of shares of Common Stock owned or held by or for the account of the Company, but excluding any Excluded Securities granted issued or sold or deemed to have been granted issued or sold) for a consideration per share (the “**New Issuance Price**”) less than a price equal to the Exercise Price in effect immediately prior to such granting, issuance or sale or deemed granting, issuance or sale (such Exercise Price then in effect is referred to herein as the “**Applicable Price**”) (the foregoing a “**Dilutive Issuance**”), then immediately after such Dilutive Issuance, the Exercise Price then in effect shall be reduced to an amount equal to the product of (A) the Exercise Price in effect immediately prior to such Dilutive Issuance and (B) the quotient determined by dividing (1) the sum of (I) the product derived by multiplying the Exercise Price in effect immediately prior to such Dilutive Issuance and the number of shares of Common Stock Deemed Outstanding immediately prior to such Dilutive Issuance plus (II) the consideration, if any, received by the Company upon such Dilutive Issuance by (2) the product derived by multiplying (I) the Exercise Price in effect immediately prior to such Dilutive Issuance by (II) the number of shares of Common Stock Deemed Outstanding immediately after such Dilutive Issuance. For all purposes of the foregoing (including, without limitation, determining the adjusted Exercise Price and the New Issuance Price under this Section 2(b)), the following shall be applicable:

(i) Issuance of Options. If the Company in any manner grants, issues or sells (or enters into any agreement to grant, issue or sell) any Options and the lowest price per share for which one share of Common Stock is at any time issuable upon the exercise of any such Option or upon conversion, exercise or exchange of any Convertible Securities issuable upon exercise of any such Option or otherwise pursuant to the terms thereof is less than the Applicable Price, then such share of Common Stock shall be deemed to be outstanding and to have been issued and sold by the Company at the time of the granting, issuance or sale (or the time of execution of such agreement to grant, issue or sell, as applicable) of such Option for such price per share. For purposes of this Section 2(b)(i), the “lowest price per share for which one share of Common Stock is at any time issuable upon the exercise of any such Options or upon conversion, exercise or exchange of any Convertible Securities issuable upon exercise of any such Option or otherwise pursuant to the terms thereof” shall be equal to (1) the lower of (x) the sum of the lowest amounts of consideration (if any) received or receivable by the Company with respect to any one share of Common Stock upon the granting, issuance or sale (or pursuant to the agreement to grant, issue or sell, as applicable) of such Option, upon exercise of such Option and upon conversion, exercise or exchange of any Convertible Security issuable upon exercise of such Option or otherwise pursuant to the terms thereof and (y) the lowest exercise price set forth in such Option for which one share of Common Stock is issuable (or may become issuable assuming all possible market conditions) upon the exercise of any such Options or upon conversion, exercise or exchange of any Convertible Securities issuable upon exercise of any such Option or otherwise pursuant to the terms thereof minus (2) the sum of all amounts paid or payable to the holder of such Option (or any other Person) upon the granting, issuance or sale (or the agreement to grant, issue or sell, as applicable) of such Option, upon exercise of such Option and upon conversion, exercise or exchange of any Convertible Security issuable upon exercise of such Option or otherwise pursuant to the terms thereof plus the value of any other consideration received or receivable by, or benefit conferred on, the holder of such Option (or any other Person). Except as contemplated below, no further adjustment of the Exercise Price shall be made upon the actual issuance of such shares of Common Stock or of such Convertible Securities upon the exercise of such Options or otherwise pursuant to the terms of or upon the actual issuance of such shares of Common Stock upon conversion, exercise or exchange of such Convertible Securities.

(ii) Issuance of Convertible Securities. If the Company in any manner issues or sells (or enters into any agreement to issue or sell) any Convertible Securities and the lowest price per share for which one share of Common Stock is at any time issuable upon the conversion, exercise or exchange thereof or otherwise pursuant to the terms thereof is less than the Applicable Price, then such share of Common Stock shall be deemed to be outstanding and to have been issued and sold by the Company at the time of the issuance or sale (or the time of execution of such agreement to issue or sell, as applicable) of such Convertible Securities for such price per share. For the purposes of this Section 2(b)(ii), the “lowest price per share for which one share of Common Stock is at any time issuable upon the conversion, exercise or exchange thereof or otherwise pursuant to the terms thereof” shall be equal to (1) the lower of (x) the sum of the lowest amounts of consideration (if any) received or receivable by the Company with respect to one share of Common Stock upon the issuance or sale (or pursuant to the agreement to issue or sell, as applicable) of the Convertible Security and upon conversion, exercise or exchange of such Convertible Security or otherwise pursuant to the terms thereof and (y) the lowest conversion price set forth in such Convertible Security for which one share of Common Stock is issuable (or may become issuable assuming all possible market conditions) upon conversion, exercise or exchange thereof or otherwise pursuant to the terms thereof minus (2) the sum of all amounts paid or payable to the holder of such Convertible Security (or any other Person) upon the issuance or sale (or the agreement to issue or sell, as applicable) of such Convertible Security plus the value of any other consideration received or receivable by, or benefit conferred on, the holder of such Convertible Security (or any other Person). Except as contemplated below, no further adjustment of the Exercise Price shall be made upon the actual issuance of such shares of Common Stock upon conversion, exercise or exchange of such Convertible Securities or otherwise pursuant to the terms thereof, and if any such issuance or sale of such Convertible Securities is made upon exercise of any Options for which adjustment of this Warrant has been or is to be made pursuant to other provisions of this Section 2(b), except as contemplated below, no further adjustment of the Exercise Price shall be made by reason of such issuance or sale.

(iii) Change in Option Price or Rate of Conversion. If the purchase or exercise price provided for in any Options, the additional consideration, if any, payable upon the issue, conversion, exercise or exchange of any Convertible Securities, or the rate at which any Convertible Securities are convertible into or exercisable or exchangeable for shares of Common Stock increases or decreases at any time (other than proportional changes in conversion or exercise prices, as applicable, in connection with an event referred to in Section 2(a)), the Exercise Price in effect at the time of such increase or decrease shall be adjusted to the Exercise Price which would have been in effect at such time had such Options or Convertible Securities provided for such increased or decreased purchase price, additional consideration or increased or decreased conversion rate, as the case may be, at the time initially granted, issued or sold. For purposes of this Section 2(b)(ii), if the terms of any Option or Convertible Security (including, without limitation, any Option or Convertible Security that was outstanding as of the Subscription Date) are increased or decreased in the manner described in the immediately preceding sentence, then such Option or Convertible Security and the shares of Common Stock deemed issuable upon exercise, conversion or exchange thereof shall be deemed to have been issued as of the date of such increase or decrease. No adjustment pursuant to this Section 2(b) shall be made if such adjustment would result in an increase of the Exercise Price then in effect.

(iv) Calculation of Consideration Received. If any Option and/or Convertible Security and/or Adjustment Right is issued in connection with the issuance or sale or deemed issuance or sale of any other securities of the Company (as determined by the Holder, the “Primary Security”, and such Option and/or Convertible Security and/or Adjustment Right, the “Secondary Securities” and together with the Primary Security, each a “Unit”), together comprising one integrated transaction, the aggregate consideration per share of Common Stock with respect to such Primary Security shall be deemed to be the lower of (x) the purchase price of such Unit, (y) if such Primary Security is an Option and/or Convertible Security, the lowest price per share for which one share of Common Stock is at any time issuable upon the exercise or conversion of the Primary Security in accordance with Section 2(b)(i) or 2(b)(ii) above and (z) the lowest VWAP of the shares of Common Stock on any Trading Day during the five (5) Trading Day period (the “**Adjustment Period**”) immediately following the public announcement of such Dilutive Issuance (for the avoidance of doubt, if such public announcement is released prior to the opening of the Principal Market on a Trading Day, such Trading Day shall be the first Trading Day in such five Trading Day period and if this Warrant is exercised, on any given Exercise Date during any such Adjustment Period, solely with respect to such portion of this Warrant exercised on such applicable Exercise Date, such applicable Adjustment Period shall be deemed to have ended on, and included, the Trading Day immediately prior to such Exercise Date). If any shares of Common Stock, Options or Convertible Securities are issued or sold or deemed to have been issued or sold for cash, the consideration received therefor will be deemed to be the net amount of consideration received by the Company therefor. If any shares of Common Stock, Options or Convertible Securities are issued or sold for a consideration other than cash, the amount of such consideration received by the Company will be the fair value of such consideration, except where such consideration consists of publicly traded securities, in which case the amount of consideration received by the Company for such securities will be the arithmetic average of the VWAPs of such security for each of the five (5) Trading Days immediately preceding the date of receipt. If any shares of Common Stock, Options or Convertible Securities are issued to the owners of the non-surviving entity in connection with any merger in which the Company is the surviving entity, the amount of consideration therefor will be deemed to be the fair value of such portion of the net assets and business of the non-surviving entity as is attributable to such shares of Common Stock, Options or Convertible Securities (as the case may be). The fair value of any consideration other than cash or publicly traded securities will be determined jointly by the Company and the Holder. If such parties are unable to reach agreement within ten (10) days after the occurrence of an event requiring valuation (the “**Valuation Event**”), the fair value of such consideration will be determined within five (5) Trading Days after the tenth (10th) day following such Valuation Event by an independent, reputable appraiser jointly selected by the Company and the Holder. The determination of such appraiser shall be final and binding upon all parties absent manifest error and the fees and expenses of such appraiser shall be borne by the Company.

(v) Record Date. If the Company takes a record of the holders of shares of Common Stock for the purpose of entitling them (A) to receive a dividend or other distribution payable in shares of Common Stock, Options or in Convertible Securities or (B) to subscribe for or purchase shares of Common Stock, Options or Convertible Securities, then such record date will be deemed to be the date of the issuance or sale of the shares of Common Stock deemed to have been issued or sold upon the declaration of such dividend or the making of such other distribution or the date of the granting of such right of subscription or purchase (as the case may be).

(c) Number of Warrant Shares. Simultaneously with any adjustment to the Exercise Price pursuant to this Section 2(a), the number of Warrant Shares that may be purchased upon exercise of this Warrant shall be increased or decreased proportionately, so that after such adjustment the aggregate Exercise Price payable hereunder for the adjusted number of Warrant Shares shall be the same as the aggregate Exercise Price in effect immediately prior to such adjustment (without regard to any limitations on exercise contained herein).

(d) Other Events. In the event that the Company (or any Subsidiary (as defined in the Securities Purchase Agreement)) shall take any action to which the provisions hereof are not strictly applicable, or, if applicable, would not operate to protect the Holder from dilution or if any event occurs of the type contemplated by the provisions of this Section 2 but not expressly provided for by such provisions (including, without limitation, the granting of stock appreciation rights, phantom stock rights or other rights with equity features), then the Company's board of directors shall in good faith determine and implement an appropriate adjustment in the Exercise Price and the number of Warrant Shares (if applicable) so as to protect the rights of the Holder, provided that no such adjustment pursuant to this Section 2(d) will increase the Exercise Price or decrease the number of Warrant Shares as otherwise determined pursuant to this Section 2, provided further that if the Holder does not accept such adjustments as appropriately protecting its interests hereunder against such dilution, then the Company's board of directors and the Holder shall agree, in good faith, upon an independent investment bank of nationally recognized standing to make such appropriate adjustments, whose determination shall be final and binding absent manifest error and whose fees and expenses shall be borne by the Company.

(e) Calculations. All calculations under this Section 2 shall be made by rounding to the nearest cent or the nearest 1/100th of a share, as applicable. The number of shares of Common Stock outstanding at any given time shall not include shares owned or held by or for the account of the Company, and the disposition of any such shares shall be considered an issuance or sale of Common Stock.

(f) Voluntary Adjustment By Company. Subject to the rules and regulations of the Principal Market, the Company may at any time during the term of this Warrant, with the prior written consent of the Required Holders (as defined in the Securities Purchase Agreement), reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

3. RIGHTS UPON DISTRIBUTION OF ASSETS. In addition to any adjustments pursuant to Section 2 above or Section 4(a) below, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to 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, options, evidence of indebtedness or any other assets by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a “**Distribution**”), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution 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 Warrant (without regard to any limitations or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage) immediately before 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 shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that to the extent that the Holder’s right to participate in any such Distribution would result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to participate in such Distribution in excess of the Maximum Percentage (and shall not be entitled to beneficial ownership of such shares of Common Stock as a result of such Distribution (and beneficial ownership) to the extent of any such excess) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time or times, if ever, as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the Holder shall be granted such Distribution (and any Distributions declared or made on such initial Distribution or on any subsequent Distribution held similarly in abeyance) to the same extent as if there had been no such limitation).

4. PURCHASE RIGHTS; FUNDAMENTAL TRANSACTIONS.

(a) Purchase Rights. In addition to any adjustments pursuant to Sections 2 or 3 above, 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 the record holders of any class of Common Stock (the “**Purchase Rights**”), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations or restrictions on exercise of this Warrant, including without limitation, the Maximum Percentage) immediately before 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, issuance or sale of such Purchase Rights (provided, however, that to the extent that the Holder’s right to participate in any such Purchase Right would result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, then the Holder shall not be entitled to participate in such Purchase Right to the extent of the Maximum Percentage (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 the extent of any such excess) and such Purchase Right to such extent shall be held in abeyance for the benefit of the Holder until such time or times, if ever, as its right thereto would not result in the Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times the 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 held similarly in abeyance) to the same extent as if there had been no such limitation).

(b) Fundamental Transactions. The Company shall not enter into or be party to a Fundamental Transaction unless the Successor Entity assumes in writing all of the obligations of the Company under this Warrant and the other Transaction Documents (as defined in the Securities Purchase Agreement) in accordance with the provisions of this Section 4(b) pursuant to written agreements in form and substance satisfactory to the Holder and approved by the Holder prior to such Fundamental Transaction, including agreements to deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant, including, without limitation, which is exercisable for a corresponding number of shares of capital stock equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise 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 adjustments to the number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction). Upon the consummation of each Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of the applicable Fundamental Transaction, the provisions of this Warrant 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 Warrant and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Company herein. Upon consummation of each Fundamental Transaction, the Successor Entity shall deliver to the Holder confirmation that there shall be issued upon exercise of this Warrant at any time after the consummation of the applicable 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 3 and 4(a) above, which shall continue to be receivable thereafter)) issuable upon the exercise of this Warrant prior to the applicable Fundamental Transaction, such shares of publicly traded common stock (or its equivalent) of the Successor Entity (including its Parent Entity) which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant), as adjusted in accordance with the provisions of this Warrant. Notwithstanding the foregoing, and without limiting Section 1(f) hereof, the Holder may elect, at its sole option, by delivery of written notice to the Company to waive this Section 4(b) to permit the Fundamental Transaction without the assumption of this Warrant. In addition to and not in substitution for any other rights hereunder, prior to the consummation of each 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 the Holder will thereafter have the right to receive upon an exercise of this Warrant at any time after the consummation of the applicable Fundamental Transaction but prior to the Expiration Date, in lieu of the shares of the Common Stock (or other securities, cash, assets or other property (except such items still issuable under Sections 3 and 4(a) above, which shall continue to be receivable thereafter)) issuable upon the exercise of the Warrant prior to such Fundamental Transaction, such shares of stock, securities, cash, assets or any other property whatsoever (including warrants or other purchase or subscription rights) (the “**Corporate Event Consideration**”) which the Holder would have been entitled to receive upon the happening of the applicable Fundamental Transaction had this Warrant been exercised immediately prior to the applicable Fundamental Transaction (without regard to any limitations on the exercise of this Warrant). Provision made pursuant to the preceding sentence shall be in a form and substance reasonably satisfactory to the Holder.

(c) Change of Control Consideration Right. Notwithstanding the foregoing and the provisions of Section 4(b) above, at the request of the Holder delivered at any time commencing on the earliest to occur of (A) the public disclosure of any Change of Control, (B) the consummation of any Change of Control and (C) the Holder first becoming aware of any Change of Control through the date that is ninety (90) days after the public disclosure of the consummation of such Change of Control by the Company pursuant to a Current Report on Form 8-K filed with the SEC, the Company or the Successor Entity (as the case may be) shall exchange this Warrant for consideration equal to the Black Scholes Value of such portion of this Warrant subject to exchange (collectively, the “**Aggregate Black Scholes Value**”) in the form of, at the Company’s election (such election to pay in cash or by delivery of the Rights (as defined below), a “**Consideration Election**”), either (I) rights (with a beneficial ownership limitation in the form of Section 1(f)(i) hereof, *mutatis mutandis*) (collectively, the “**Rights**”), convertible in whole, or in part, at any time, without the requirement to pay any additional consideration, at the option of the Holder, into such Corporate Event Consideration applicable to such Change of Control with a fair market value (as determined in good faith by the board of directors of the Company immediately prior to the time of consummation of such Change of Control) equal to the applicable Aggregate Black Scholes Value subject to exchange hereunder or (II) in cash. The Company shall give the Holder written notice of each Consideration Election at least five (5) Trading Days prior to the time of consummation of such Change of Control. Payment of such amounts or delivery of the Rights, as applicable, shall be made by the Company (or at the Company’s direction) to the Holder on the later of (x) the second (2nd) Trading Day after the date of such request and (y) the date of consummation of such Change of Control (or, with respect to any Right, if applicable, such later time that holders of shares of Common Stock are initially entitled to receive Corporate Event Consideration with respect to the shares of Common Stock held by such holders as of the time of consummation of such Change of Control). For the avoidance of doubt, any Corporate Event Consideration included in the Right, if any, pursuant to this Section 4(c) shall rank pari passu with the Corporate Event Consideration to be paid to holders of shares of Common Stock.

(d) Application. The provisions of this Section 4 shall apply similarly and equally to successive Fundamental Transactions and Corporate Events and shall be applied as if this Warrant (and any such subsequent warrants) were fully exercisable and without regard to any limitations on the exercise of this Warrant (provided that the Holder shall continue to be entitled to the benefit of the Maximum Percentage, applied however with respect to shares of capital stock registered under the 1934 Act and thereafter receivable upon exercise of this Warrant (or any such other warrant)).

5. 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, issuance 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 Warrant, and will at all times in good faith carry out all the provisions of this Warrant and take all action as may be required to protect the rights of the Holder. Without limiting the generality of the foregoing, the Company (a) shall not increase the par value of any shares of Common Stock receivable upon the exercise of this Warrant above the Exercise Price then in effect, and (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 exercise of this Warrant. Notwithstanding anything herein to the contrary, if after the sixty (60) calendar day anniversary of the Stockholder Approval Date, the Holder is not permitted to exercise this Warrant in full for any reason (other than pursuant to restrictions set forth in Section 1(f) hereof), the Company shall use its best efforts to promptly remedy such failure, including, without limitation, obtaining such consents or approvals as necessary to permit such exercise into shares of Common Stock.

6. WARRANT HOLDER NOT DEEMED A STOCKHOLDER. Except as otherwise specifically provided herein, the Holder, solely in its capacity as a holder of this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of share capital of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in its capacity as the Holder of this Warrant, any of the rights of a stockholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of stock, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which it is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a stockholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company. Notwithstanding this Section 6, the Company shall provide the Holder with copies of the same notices and other information given to the stockholders of the Company generally, contemporaneously with the giving thereof to the stockholders.

7. REISSUANCE OF WARRANTS.

(a) Transfer of Warrant. If this Warrant is to be transferred, the Holder shall surrender this Warrant to the Company, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Warrant (in accordance with Section 7(d)), registered as the Holder may request, representing the right to purchase the number of Warrant Shares being transferred by the Holder and, if less than the total number of Warrant Shares then underlying this Warrant is being transferred, a new Warrant (in accordance with Section 7(d)) to the Holder representing the right to purchase the number of Warrant Shares not being transferred.

(b) Lost, Stolen or Mutilated Warrant. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant (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 Holder to the Company in customary and reasonable form and, in the case of mutilation, upon surrender and cancellation of this Warrant, the Company shall execute and deliver to the Holder a new Warrant (in accordance with Section 7(d)) representing the right to purchase the Warrant Shares then underlying this Warrant.

(c) Exchangeable for Multiple Warrants. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for a new Warrant or Warrants (in accordance with Section 7(d)) representing in the aggregate the right to purchase the number of Warrant Shares then underlying this Warrant, and each such new Warrant will represent the right to purchase such portion of such Warrant Shares as is designated by the Holder at the time of such surrender; provided, however, no warrants for fractional shares of Common Stock shall be given.

(d) Issuance of New Warrants. Whenever the Company is required to issue a new Warrant pursuant to the terms of this Warrant, such new Warrant (i) shall be of like tenor with this Warrant, (ii) shall represent, as indicated on the face of such new Warrant, the right to purchase the Warrant Shares then underlying this Warrant (or in the case of a new Warrant being issued pursuant to Section 7(a) or Section 7(c), the Warrant Shares designated by the Holder which, when added to the number of shares of Common Stock underlying the other new Warrants issued in connection with such issuance, does not exceed the number of Warrant Shares then underlying this Warrant), (iii) shall have an issuance date, as indicated on the face of such new Warrant which is the same as the Issuance Date, and (iv) shall have the same rights and conditions as this Warrant.

8. **NOTICES.** Whenever notice is required to be given under this Warrant, unless otherwise provided herein, such notice shall be given in accordance with Section 9(f) of the Securities Purchase Agreement. The Company shall provide the Holder with prompt written notice of all actions taken pursuant to this Warrant (other than the issuance of shares of Common Stock upon exercise in accordance with the terms hereof), including in reasonable detail a description of such action and the reason therefor. Without limiting the generality of the foregoing, the Company will give written notice to the Holder (i) immediately upon each adjustment of the Exercise Price and the number of Warrant Shares, setting forth in reasonable detail, and certifying, the calculation of such adjustment(s), (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 shares of Common Stock, (B) with respect to any grants, 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 in each case that such information shall be made known to the public prior to or in conjunction with such notice being provided to the Holder, and (iii) at least ten (10) Trading Days prior to the consummation of any Fundamental Transaction. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any of its Subsidiaries, the Company shall simultaneously file such notice with the SEC (as defined in the Securities Purchase Agreement) pursuant to a Current Report on Form 8-K. If the Company or any of its Subsidiaries provides material non-public information to the Holder that is not simultaneously filed in a Current Report on Form 8-K and the Holder has not agreed to receive such material non-public information, the Company hereby covenants and agrees that the Holder shall not have any duty of confidentiality to the Company, any of its Subsidiaries or any of their respective officers, directors, employees, affiliates or agents with respect to, or a duty to any of the foregoing not to trade on the basis of, such material non-public information. It is expressly understood and agreed that the time of execution specified by the Holder in each Exercise Notice shall be definitive and may not be disputed or challenged by the Company.

9. **DISCLOSURE.** Upon delivery by the Company to the Holder (or receipt by the Company from the Holder) of any notice in accordance with the terms of this Warrant, 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 shall on or prior to 9:00 am, New York city time on the Business Day immediately following such notice delivery date, 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 the Holder explicitly in writing in such notice (or immediately upon receipt of notice from the Holder, as applicable), and in the absence of any such written indication in such notice (or notification from the Company immediately upon receipt of notice from the Holder), the Holder shall be entitled to presume that information contained in the notice does not constitute material, non-public information relating to the Company or any of its Subsidiaries. Nothing contained in this Section 9 shall limit any obligations of the Company, or any rights of the Holder, under Section 4(i) of the Securities Purchase Agreement.

10. ABSENCE OF TRADING AND DISCLOSURE RESTRICTIONS. The Company acknowledges and agrees that the Holder is not a fiduciary or agent of the Company and that the Holder shall have no obligation to (a) maintain the confidentiality of any information provided by the Company or (b) refrain from trading any securities while in possession of such information in the absence of a written non-disclosure agreement signed by an officer of the Holder that explicitly provides for such confidentiality and trading restrictions. In the absence of such an executed, written non-disclosure agreement, the Company acknowledges that the Holder may freely trade in any securities issued by the Company, may possess and use any information provided by the Company in connection with such trading activity, and may disclose any such information to any third party.

11. AMENDMENT AND WAIVER. Except as otherwise provided herein, the provisions of this Warrant (other than Section 1(f) above and this Section 11, which may not be amended, modified or waived) may be amended and the Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the Holder. No waiver shall be effective unless it is in writing and signed by an authorized representative of the waiving party.

12. SEVERABILITY. If any provision of this Warrant 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 Warrant so long as this Warrant 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).

13. GOVERNING LAW. This Warrant shall be governed by and construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Warrant shall be governed by, the internal laws of the State of New York, without giving effect to any provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York. The Company 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 to the Company at the address set forth in Section 9(f) of the Securities Purchase Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. 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 or operate to preclude the Holder from bringing suit or taking other legal action against the Company in any other jurisdiction to collect on the Company's obligations to the Holder, to realize on any collateral or any other security for such obligations, or to enforce a judgment or other court ruling in favor of the Holder. **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 WARRANT OR ANY TRANSACTION CONTEMPLATED HEREBY.**

14. CONSTRUCTION; HEADINGS. This Warrant shall be deemed to be jointly drafted by the Company and the Holder and shall not be construed against any Person as the drafter hereof. The headings of this Warrant are for convenience of reference and shall not form part of, or affect the interpretation of, this Warrant. Terms used in this Warrant but defined in the other Transaction Documents shall have the meanings ascribed to such terms on the Closing Date (as defined in the Securities Purchase Agreement) in such other Transaction Documents unless otherwise consented to in writing by the Holder.

15. DISPUTE RESOLUTION.

(a) Submission to Dispute Resolution.

(i) In the case of a dispute relating to the Exercise Price, the Closing Sale Price, the Bid Price, Black Scholes Value or fair market value or the arithmetic calculation of the number of Warrant Shares (as the case may be) (including, without limitation, a dispute relating to the determination of any of the foregoing), the Company or the Holder (as the case may be) shall submit the dispute to the other party via facsimile (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 the Holder, at any time after the Holder learned of the circumstances giving rise to such dispute. If the Holder and the Company are unable to promptly resolve such dispute relating to such Exercise Price, such Closing Sale Price, such Bid Price, such Black Scholes Value or such fair market value or such arithmetic calculation of the number of Warrant Shares (as the case may be), at any time after the second (2nd) Business Day following such initial notice by the Company or the Holder (as the case may be) of such dispute to the Company or the Holder (as the case may be), then the Holder may, at its sole option, select an independent, reputable investment bank to resolve such dispute.

(ii) The 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 15 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 the 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 the 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 the Holder or otherwise requested by such investment bank, neither the Company nor the 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 the Holder shall cause such investment bank to determine the resolution of such dispute and notify the Company and the 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 15 constitutes an agreement to arbitrate between the Company and the Holder (and constitutes an arbitration agreement) under the rules then in effect § 7501, et seq. of the New York Civil Practice Law and Rules ("CPLR") and that the Holder is authorized to apply for an order to compel arbitration pursuant to CPLR § 7503(a) in order to compel compliance with this Section 15, (ii) a dispute relating to the Exercise Price includes, without limitation, disputes as to (A) whether an issuance or sale or deemed issuance or sale of Common Stock occurred under Section 2(b), (B) the consideration per share at which an issuance or deemed issuance of Common Stock occurred, (C) whether any issuance or sale or deemed issuance or sale of Common Stock was an issuance or sale or deemed issuance or sale of Excluded Securities, (D) whether an agreement, instrument, security or the like constitutes and Option or Convertible Security and (E) whether a Dilutive Issuance occurred, (iii) the terms of this Warrant 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 (including, without limitation, determining (A) whether an issuance or sale or deemed issuance or sale of Common Stock occurred under Section 2(b), (B) the consideration per share at which an issuance or deemed issuance of Common Stock occurred, (C) whether any issuance or sale or deemed issuance or sale of Common Stock was an issuance or sale or deemed issuance or sale of Excluded Securities, (D) whether an agreement, instrument, security or the like constitutes and Option or Convertible Security and (E) whether a Dilutive Issuance occurred) and in resolving such dispute such investment bank shall apply such findings, determinations and the like to the terms of this Warrant and any other applicable Transaction Documents, (iv) the Holder (and only the Holder), in its sole discretion, shall have the right to submit any dispute described in this Section 15 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 15 and (v) nothing in this Section 15 shall limit the Holder from obtaining any injunctive relief or other equitable remedies (including, without limitation, with respect to any matters described in this Section 15).

16. REMEDIES, CHARACTERIZATION, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant and 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 the right of the Holder to pursue actual and consequential damages for any failure by the Company to comply with the terms of this Warrant. 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, exercises 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 of this Warrant shall be entitled, in addition to all other available remedies, to specific performance and/or temporary, preliminary and permanent injunctive or other equitable relief from any court of competent jurisdiction in any such case without the necessity of proving actual damages and without posting a bond or other security. 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 Warrant (including, without limitation, compliance with Section 2 hereof). The issuance of shares and certificates for shares as contemplated hereby upon the exercise of this Warrant shall be made without charge to the Holder or such shares for any issuance tax or other costs in respect thereof, provided that the Company shall not be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of any certificate in a name other than the Holder or its agent on its behalf.

17. PAYMENT OF COLLECTION, ENFORCEMENT AND OTHER COSTS. If (a) this Warrant is placed in the hands of an attorney for collection or enforcement or is collected or enforced through any legal proceeding or the holder otherwise takes action to collect amounts due under this Warrant or to enforce the provisions of this Warrant or (b) there occurs any bankruptcy, reorganization, receivership of the company or other proceedings affecting company creditors' rights and involving a claim under this Warrant, then the Company shall pay the costs incurred by the Holder for such collection, enforcement or action or in connection with such bankruptcy, reorganization, receivership or other proceeding, including, without limitation, attorneys' fees and disbursements.

18. TRANSFER. This Warrant may be offered for sale, sold, transferred or assigned without the consent of the Company, except as may otherwise be required by Section 2(g) of the Securities Purchase Agreement.

19. CERTAIN DEFINITIONS. For purposes of this Warrant, the following terms shall have the following meanings:

(a) “**1933 Act**” means the Securities Act of 1933, as amended, and the rules and regulations thereunder.

(b) “**1934 Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

(c) “**Adjustment Right**” means any right granted with respect to any securities issued in connection with, or with respect to, any issuance or sale (or deemed issuance or sale in accordance with Section 2) of shares of Common Stock (other than rights of the type described in Section 3 and 4 hereof) that could result in a decrease in the net consideration received by the Company in connection with, or with respect to, such securities (including, without limitation, any cash settlement rights, cash adjustment or other similar rights).

(d) “**Affiliate**” means, with respect to any Person, any other Person that directly or indirectly controls, is controlled by, or is under common control with, such Person, it being understood for purposes of this definition that “control” of a Person means the power directly or indirectly either to vote 10% or more of the stock having ordinary voting power for the election of directors of such Person or direct or cause the direction of the management and policies of such Person whether by contract or otherwise.

(e) “**Approved Stock Plan**” means any employee benefit plan which has been approved by the board of directors of the Company prior to or subsequent to the date hereof pursuant to which shares of Common Stock and standard options to purchase Common Stock may be issued to any employee, officer, consultant, advisor or director for services provided to the Company in their capacity as such.

(f) “**Attribution Parties**” means, collectively, the following Persons and entities: (i) any investment vehicle, including, any funds, feeder funds or managed accounts, currently, or from time to time after the Issuance Date, directly or indirectly managed or advised by the Holder’s investment manager or any of its Affiliates or principals, (ii) any direct or indirect Affiliates of the Holder or any of the foregoing, (iii) any Person acting or who could be deemed to be acting as a Group together with the Holder or any of the foregoing and (iv) any other Persons whose beneficial ownership of the Company’s Common Stock would or could be aggregated with the Holder’s and the other Attribution Parties for purposes of Section 13(d) of the 1934 Act. For clarity, the purpose of the foregoing is to subject collectively the Holder and all other Attribution Parties to the Maximum Percentage.

(g) “**Bid Price**” means, for any security as of the particular time of determination, the bid price for such security on the Principal Market as reported by Bloomberg as of such time of determination, or, if the Principal Market is not the principal securities exchange or trading market for such security, the bid price of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg as of such time of determination, or if the foregoing does not apply, the bid price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg as of such time of determination, or, if no bid price is reported for such security by Bloomberg as of such time of determination, the average of the bid prices of any market makers for such security as reported in The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices) as of such time of determination. If the Bid Price cannot be calculated for a security as of the particular time of determination on any of the foregoing bases, the Bid Price of such security as of such time of determination shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder 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 15. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during such period.

(h) “**Black Scholes Value**” value of the unexercised portion of this Warrant remaining on the date of the consummation of the applicable Change of Control, which value is calculated using the Black Scholes Option Pricing Model obtained from the “OV” function on Bloomberg utilizing (i) an underlying price per share equal to the greater of (1) the highest Closing Sale Price of the Common Stock during the period beginning on the Trading Day immediately preceding the announcement of the applicable Change of Control (or the consummation of the applicable Change of Control, if earlier) and ending on the date of the consummation of the applicable Change of Control and (2) the sum of the price per share being offered in cash in the applicable Change of Control (if any) plus the value of the non-cash consideration being offered in the applicable Change of Control (if any), (ii) a strike price equal to the Exercise Price in effect on the date of the consummation of the applicable Change of Control, (iii) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the greater of (1) the remaining term of this Warrant as of the date of the consummation of the applicable Change of Control and (2) the remaining term of this Warrant as of the date of consummation of the applicable Change of Control, (iv) a zero cost of borrow and (v) an expected volatility equal to the greater of 100% and the 30 day volatility obtained from the “HVT” function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the earliest to occur of (A) the public disclosure of the applicable Change of Control and (B) the date of the consummation of the applicable Change of Control.

(i) “**Bloomberg**” means Bloomberg, L.P.

(j) “**Business Day**” means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to “stay at home”, “shelter-in-place”, “non-essential employee” or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

(k) “**Change of Control**” means (i) any Fundamental Transaction other than (A) any merger of the Company or any of its, direct or indirect, wholly-owned Subsidiaries with or into any of the foregoing Persons, (B) 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, the 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 (C) pursuant to a migratory merger effected solely for the purpose of changing the jurisdiction of incorporation of the Company or any of its Subsidiaries or (ii) any Going-Private Transaction.

(l) “**Closing Sale Price**” means, for any security as of any date, the last closing trade price 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 trade price, then the last trade price 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 trade price 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 does not apply, the last trade price of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no last trade price is reported for such security by Bloomberg, the average of the ask prices of any market makers for such security as reported in The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices). If the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Sale Price of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder 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 15. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during such period.

(m) “**Common Shares**” has the meaning ascribed to such term in the Securities Purchase Agreement.

(n) “**Common Stock**” means (i) the Company’s shares of common stock, \$0.001 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.

(o) “**Common Stock Deemed Outstanding**” means, at any given time, the number of shares of Common Stock actually outstanding at such time, plus the number of shares of Common Stock deemed to be outstanding pursuant to Sections 2(b)(i) and 2(b)(ii) hereof regardless of whether the Options or Convertible Securities are actually exercisable at such time, but excluding any shares of Common Stock owned or held by or for the account of the Company or issuable upon exercise, as applicable, of the SPA Warrants.

(p) “**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.

(q) “**Eligible Market**” means The New York Stock Exchange, the NYSE American, the Nasdaq Global Select Market, the Nasdaq Global Market or the Nasdaq Capital Market.

(r) “**Excluded Securities**” means (i) shares of Common Stock or standard options to purchase Common Stock issued to directors, officers, consultant, advisor or employees of the Company for services rendered to the Company in their capacity as such pursuant to an Approved Stock Plan (as defined above), provided that the exercise price of any such options is not lowered, none of such options are amended to increase the number of shares issuable thereunder and none of the terms or conditions of any such options are otherwise materially changed in any manner that adversely affects any of the Buyers; (ii) shares of Common Stock issued upon the conversion or exercise of Convertible Securities (other than standard options to purchase Common Stock issued pursuant to an Approved Stock Plan that are covered by clause (i) above) issued prior to the Subscription Date, provided that the conversion price of any such Convertible Securities (other than standard options to purchase Common Stock issued pursuant to an Approved Stock Plan that are covered by clause (i) above) is not lowered, none of such Convertible Securities (other than standard options to purchase Common Stock issued pursuant to an Approved Stock Plan that are covered by clause (i) above) are amended to increase the number of shares issuable thereunder and none of the terms or conditions of any such Convertible Securities (other than standard options to purchase Common Stock issued pursuant to an Approved Stock Plan that are covered by clause (i) above) are otherwise materially changed in any manner that adversely affects any of the Buyers; (iii) the shares of Common Stock issuable pursuant to any Permitted ATM (as defined in the Securities Purchase Agreement), (iv) the shares of Common Stock issuable upon exercise of the SPA Warrants; provided, that the terms of the SPA Warrant are not amended, modified or changed on or after the Subscription Date (other than antidilution adjustments pursuant to the terms thereof in effect as of the Subscription Date) and any shares of Common Stock issued or issuable in connection with any bona fide strategic or commercial alliances, sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements, acquisitions, mergers, licensing arrangements, and strategic partnerships, provided, that (A) the primary purpose of such issuance is not to raise capital as reasonably determined, and (B) the purchaser or acquirer or recipient of the securities in such issuance solely consists of either (I) the actual participants in such strategic or commercial alliance, strategic or commercial licensing arrangement or strategic or commercial partnership, (II) the actual owners of such assets or securities acquired in such acquisition or merger or (III) the stockholders, partners, employees, consultants, officers, directors or members of the foregoing Persons, in each case, which is, itself or through its subsidiaries, an operating company or an owner of an asset, in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, and (IV) the number or amount of securities issued to such Persons by the Company shall not be disproportionate to each such Person’s actual participation in (or fair market value of the contribution to) such strategic or commercial alliance or strategic or commercial partnership or ownership of such assets or securities to be acquired by the Company, as applicable.

(s) “**Expiration Date**” means the date that is the fifth (5th) anniversary of the Stockholder Approval Date or, if such date falls on a day other than a Trading Day or on which trading does not take place on the Principal Market (a “**Holiday**”), the next date that is not a Holiday.

(t) “**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 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 1934 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 1934 Act) of at least 50% of the outstanding shares of Common Stock, or (v) reorganize, recapitalize or reclassify its 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 1934 Act), directly or indirectly, whether through acquisition, 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 Common Stock, (y) at least 50% of the aggregate ordinary voting power represented by issued and outstanding Common Stock not held by all such Subject Entities as of the date of this Warrant 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 or (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.

- (u) **“Going-Private Transaction”** means any transaction after which the Common Stock of the Company (or any Successor Entity) ceases to be registered under the 1934 Act.
- (v) **“Group”** means a “group” as that term is used in Section 13(d) of the 1934 Act and as defined in Rule 13d-5 thereunder.
- (w) **“Options”** means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.
- (x) **“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 Fundamental Transaction.
- (y) **“Person”** means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity or a government or any department or agency thereof.
- (z) **“Principal Market”** means the Nasdaq Capital Market.
- (aa) **“Registration Rights Agreement”** means that certain registration rights agreement, dated as of the Closing Date, by and among the Company and the initial holders of the Common Shares relating to, among other things, the registration of the resale of the Common Shares and shares of Common Stock issuable upon exercise of the SPA Warrants, as may be amended from time to time.
- (bb) **“SEC”** means the United States Securities and Exchange Commission or the successor thereto.
- (cc) **“Subject Entity”** means any Person, Persons or Group or any Affiliate or associate of any such Person, Persons or Group.
- (dd) **“Successor Entity”** means the Person (or, if so elected by the Holder, the Parent Entity) formed by, resulting from or surviving any Fundamental Transaction or the Person (or, if so elected by the Holder, the Parent Entity) with which such Fundamental Transaction shall have been entered into.
- (ee) **“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 Holder or (y) with respect to all determinations other than price or trading volume 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.

(ff) “**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 a.m., New York time, and ending at 4:00 p.m., New York time, as reported by Bloomberg through its “VAP” function (set to 09:30 start time and 16:00 end time) 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 a.m., New York time, and ending at 4:00 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 Open Market (or a similar organization or agency succeeding to its functions of reporting prices). 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 Holder. If the Company and the Holder 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 15. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination, recapitalization or other similar transaction during such period.

[signature page follows]

IN WITNESS WHEREOF, the Company has caused this Warrant to Purchase Common Stock to be duly executed as of the Issuance Date set out above.

MARKER THERAPEUTICS, INC.

By: _____

Name:

Title:

EXERCISE NOTICE

TO BE EXECUTED BY THE REGISTERED HOLDER TO EXERCISE THIS SERIES A WARRANT TO PURCHASE COMMON STOCK

MARKER THERAPEUTICS, INC.

The undersigned holder hereby elects to exercise the Series A Warrant to Purchase Common Stock No. _____ (the "Warrant") of Marker Therapeutics, Inc., a Delaware corporation (the "Company") as specified below. Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

1. Form of Exercise Price. The Holder intends that payment of the Aggregate Exercise Price shall be made as:

- checkbox a "Cash Exercise" with respect to _____ Warrant Shares; and/or
checkbox a "Cashless Exercise" with respect to _____ Warrant Shares.

In the event that the Holder has elected a Cashless Exercise with respect to some or all of the Warrant Shares to be issued pursuant hereto, the Holder hereby represents and warrants that (i) this Exercise Notice was executed by the Holder at _____ [a.m.][p.m.] on the date set forth below and (ii) if applicable, the Bid Price as of such time of execution of this Exercise Notice was \$ _____.

2. Payment of Exercise Price. In the event that the Holder has elected a Cash Exercise with respect to some or all of the Warrant Shares to be issued pursuant hereto, the Holder shall pay the Aggregate Exercise Price in the sum of \$ _____ to the Company in accordance with the terms of the Warrant.

3. Delivery of Warrant Shares. The Company shall deliver to Holder, or its designee or agent as specified below, _____ shares of Common Stock in accordance with the terms of the Warrant. Delivery shall be made to Holder, or for its benefit, as follows:

checkbox Check here if requesting delivery as a certificate to the following name and to the following address:

Issue to: _____

checkbox 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: _____

ACKNOWLEDGMENT

The Company hereby acknowledges this Exercise 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 Company and acknowledged and agreed to by _____.

MARKER THERAPEUTICS, INC.

By: _____
Name:
Title:

SECURITIES PURCHASE AGREEMENT

This **SECURITIES PURCHASE AGREEMENT** (the “**Agreement**”), dated as of December 19, 2024, is by and among Marker Therapeutics, Inc., a Delaware corporation with offices located at 2450 Holcombe Blvd, Suite BCM-A, MS: BCM251, Houston, Texas 77021 (the “**Company**”), and each of the investors signatory hereto (individually, a “**Buyer**” and collectively, the “**Buyers**”).

RECITALS

A. The Company and each Buyer is executing and delivering this Agreement in reliance upon the exemption from securities registration afforded by Section 4(a)(2) of the Securities Act of 1933, as amended (the “**1933 Act**”), and Rule 506(b) of Regulation D (“**Regulation D**”) as promulgated by the United States Securities and Exchange Commission (the “**SEC**”) under the 1933 Act.

B. Each Buyer wishes to purchase, and the Company wishes to sell, upon the terms and conditions stated in this Agreement, (i) such aggregate number of shares of Common Stock as set forth on the signature page of such Buyer attached hereto (which aggregate amount for all Buyers shall be 1,783,805 shares of Common Stock and shall collectively be referred to herein as the “**Common Shares**”), (ii) a warrant to initially acquire up to that aggregate number of additional shares of Common Stock as set forth on the signature page of such Buyer attached here, substantially in the form attached hereto as **Exhibit A-1** (the “**Series A Warrants**”) (as exercised, collectively, the “**Series A Warrant Shares**”) and (iii) a partially prepaid warrant to initially acquire up to that aggregate number of additional shares of Common Stock as set forth on the signature page of such Buyer attached here, substantially in the form attached hereto as **Exhibit A-2** (the “**Series B Warrants**”, and together with the Series A Warrants, the “**Warrants**”) (as exercised, collectively, the “**Series B Warrant Shares**”, and together with the Series B Warrant Shares, the “**Warrant Shares**”).

C. On the date hereof, the parties hereto shall execute and deliver a Registration Rights Agreement, in the form attached hereto as **Exhibit B** (the “**Registration Rights Agreement**”), pursuant to which the Company has agreed to provide certain registration rights with respect to the Registrable Securities (as defined in the Registration Rights Agreement), under the 1933 Act and the rules and regulations promulgated thereunder, and applicable state securities laws.

D. The Common Shares, the Warrants and the Warrant Shares are collectively referred to herein as the “**Securities**.”

AGREEMENT

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and each Buyer hereby agree as follows:

1. PURCHASE AND SALE OF COMMON SHARES AND WARRANTS.

(a) Purchase of Common Shares and Warrants. Subject to the satisfaction (or waiver) of the conditions set forth in Sections 6 and 7 below, the Company shall issue and sell to each Buyer, and each Buyer severally, but not jointly, agrees to purchase from the Company on the Closing Date (as defined below) (i) such aggregate number of Common Shares as is set forth on the signature page of such Buyer attached hereto, (ii) Series A Warrants to initially acquire up to that aggregate number of Series A Warrant Shares as set forth on the signature page of such Buyer attached here and (iii) Series B Warrants to initially acquire up to such aggregate number of Series B Warrant Shares as set forth on the signature page of such Buyer attached here.

(b) Closing. The closing (the “**Closing**”) of the purchase of the Common Shares and the Warrants by the Buyers shall occur at the offices of Kelley Drye & Warren LLP, 3 World Trade Center, 175 Greenwich Street, New York, NY 10007. The date and time of the Closing (the “**Closing Date**”) shall be 10:00 a.m., New York time, on the first (1st) Business Day on which the conditions to the Closing set forth in Sections 6 and 7 below are satisfied or waived (or such other date as is mutually agreed to by the Company and each Buyer). As used herein “**Business Day**” means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to “stay at home”, “shelter-in-place”, “non-essential employee” or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

(c) Purchase Price. The aggregate purchase price for the Common Shares and the Warrants to be purchased by each Buyer (the “**Purchase Price**”) shall be the aggregate purchase price of such Buyer set forth on the signature page of such Buyer attached hereto (representing \$3.20 per each unit consisting of one (1) Common Share (or a Series B Prepaid Warrant to purchase one (1) Warrant Share) and a Series A Warrant to purchase one (1) Warrant Share, and a maximum aggregate Purchase Price of \$16,100,000).

(d) Form of Payment. On the Closing Date, (i) each Buyer shall pay its respective Purchase Price (less, in the case of any Buyer, the amounts withheld pursuant to Section 4(g)) to the Company for the Common Shares and the Warrants to be issued and sold to such Buyer at the Closing, by wire transfer of immediately available funds in accordance with the Flow of Funds Letter (as defined below) and (ii) the Company shall deliver to each Buyer (A) a stock certificate of the Company for such aggregate number of Common Shares as is set forth on the signature page of such Buyer attached hereto, (B) a Series A Warrant to initially acquire up to that aggregate number of Series A Warrant Shares as set forth on the signature page of such Buyer attached here and (C) a Series B Warrant to initially acquire up to such aggregate number of Series B Warrant Shares as set forth on the signature page of such Buyer attached here, in each case, duly executed on behalf of the Company and registered in the name of such Buyer or its designee.

(e) Placement Agent Fees. On the Closing Date, the Company shall pay to Canaccord Genuity LLC and Brookline Capital Markets, a division of Arcadia Securities, LLC, as placement agents (the “**Placement Agents**”), all fees and expenses due to the Placement Agents as of such Closing Date by wire transfer of immediately available funds in accordance with the Placement Agents’ written wire instructions.

2. **BUYER’S REPRESENTATIONS AND WARRANTIES.**

Each Buyer, severally and not jointly, represents and warrants to the Company and the Placement Agents with respect to only itself that, as of the date hereof and as of the Closing Date:

(a) Organization; Authority. Such Buyer is an entity duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization with the requisite power and authority to enter into and to consummate the transactions contemplated by the Transaction Documents (as defined below) to which it is a party and otherwise to carry out its obligations hereunder and thereunder.

(b) No Public Sale or Distribution. Such Buyer (i) is acquiring its Common Shares and Warrants, and (ii) upon exercise of its Warrants (other than pursuant to a Cashless Exercise (as defined in the Warrants)) will acquire the Warrant Shares issuable upon exercise thereof, in each case, for its own account and not with a view towards, or for resale in connection with, the public sale or distribution thereof in violation of applicable securities laws, except pursuant to sales registered or exempted under the 1933 Act; provided, however, by making the representations herein, such Buyer does not agree, or make any representation or warranty, to hold any of the Securities for any minimum or other specific term and reserves the right to dispose of the Securities at any time in accordance with or pursuant to a registration statement or an exemption from registration under the 1933 Act. Such Buyer does not presently have any agreement or understanding, directly or indirectly, with any Person to distribute any of the Securities in violation of applicable securities laws. For purposes of this Agreement, “**Person**” means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and any Governmental Entity or any department or agency thereof.

(c) Accredited Investor Status. Such Buyer is an “accredited investor” as that term is defined in Rule 501(a) of Regulation D.

(d) Reliance on Exemptions. Such Buyer understands that the Securities are being offered and sold to it in reliance on specific exemptions from the registration requirements of United States federal and state securities laws and that the Company is relying in part upon the truth and accuracy of, and such Buyer’s compliance with, the representations, warranties, agreements, acknowledgments and understandings of such Buyer set forth herein in order to determine the availability of such exemptions and the eligibility of such Buyer to acquire the Securities.

(e) Information. Such Buyer and its advisors, if any, have been furnished with all materials relating to the business, finances and operations of the Company and materials relating to the offer and sale of the Securities that have been requested by such Buyer. Such Buyer and its advisors, if any, have been afforded the opportunity to ask questions of the Company. Neither such inquiries nor any other due diligence investigations conducted by such Buyer or its advisors, if any, or its representatives shall modify, amend or affect such Buyer’s right to rely on the Company’s representations and warranties contained herein. Such Buyer understands that its investment in the Securities involves a high degree of risk. Such Buyer has sought such accounting, legal and tax advice as it has considered necessary to make an informed investment decision with respect to its acquisition of the Securities.

(f) No Governmental Review. Such Buyer understands that no United States federal or state agency or any other government or governmental agency has passed on or made any recommendation or endorsement of the Securities or the fairness or suitability of the investment in the Securities nor have such authorities passed upon or endorsed the merits of the offering of the Securities.

(g) Transfer or Resale. Such Buyer understands that except as provided in the Registration Rights Agreement and Section 4(h) hereof: (i) the Securities have not been and are not being registered under the 1933 Act or any state securities laws, and may not be offered for sale, sold, assigned or transferred unless (A) subsequently registered thereunder, (B) such Buyer shall have delivered to the Company (if requested by the Company) an opinion of counsel, in a form reasonably acceptable to the Company, to the effect that such Securities to be sold, assigned or transferred may be sold, assigned or transferred pursuant to an exemption from such registration, or (C) such Buyer provides the Company with reasonable assurance that such Securities can be sold, assigned or transferred pursuant to Rule 144 or Rule 144A promulgated under the 1933 Act (or a successor rule thereto) (collectively, "**Rule 144**"); (ii) any sale of the Securities made in reliance on Rule 144 may be made only in accordance with the terms of Rule 144, and further, if Rule 144 is not applicable, any resale of the Securities under circumstances in which the seller (or the Person through whom the sale is made) may be deemed to be an underwriter (as that term is defined in the 1933 Act) may require compliance with some other exemption under the 1933 Act or the rules and regulations of the SEC promulgated thereunder; and (iii) neither the Company nor any other Person is under any obligation to register the Securities under the 1933 Act or any state securities laws or to comply with the terms and conditions of any exemption thereunder. Notwithstanding the foregoing, the Securities may be pledged in connection with a bona fide margin account or other loan or financing arrangement secured by the Securities and such pledge of Securities shall not be deemed to be a transfer, sale or assignment of the Securities hereunder, and no Buyer effecting a pledge of Securities shall be required to provide the Company with any notice thereof or otherwise make any delivery to the Company pursuant to this Agreement or any other Transaction Document (as defined in Section 3(b)), including, without limitation, this Section 2(g).

(h) Validity; Enforcement. This Agreement and the Registration Rights Agreement have been duly and validly authorized, executed and delivered on behalf of such Buyer and shall constitute the legal, valid and binding obligations of such Buyer enforceable against such Buyer in accordance with their respective terms, except as such enforceability may be limited by general principles of equity or to applicable bankruptcy, insolvency, reorganization, moratorium, liquidation and other similar laws relating to, or affecting generally, the enforcement of applicable creditors' rights and remedies.

(i) No Conflicts. The execution, delivery and performance by such Buyer of this Agreement and the Registration Rights Agreement and the consummation by such Buyer of the transactions contemplated hereby and thereby will not (i) result in a violation of the organizational documents of such Buyer, or (ii) conflict with, or constitute a default (or an event which with notice or lapse of time or both would become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, indenture or instrument to which such Buyer is a party, or (iii) result in a violation of any law, rule, regulation, order, judgment or decree (including federal and state securities laws) applicable to such Buyer, except in the case of clauses (ii) and (iii) above, for such conflicts, defaults, rights or violations which could not, individually or in the aggregate, reasonably be expected to have a material adverse effect on the ability of such Buyer to perform its obligations hereunder.

(j) Residency. Such Buyer is a resident of that jurisdiction specified below its address on the signature page of such Buyer attached hereto.

(k) Independent Evaluation. Such Buyer confirms and agrees that (i) it has independently evaluated the merits of its decision to purchase the Securities, (ii) it has not relied on the advice of, or any representations by the Placement Agents or any affiliate thereof or any representative of any of the Placement Agents or their respective affiliates in making such decision, and (iii) neither the Placement Agents nor any of their representatives have any responsibility with respect to the completeness or accuracy of any information or materials furnished to such Buyer in connection with the transactions contemplated hereby.

(l) Acknowledgement of Risk. Such Buyer acknowledges and understands that its investment in the Securities involves a significant degree of risk, including, without limitation, (i) the Company remains an early stage business with limited operating history and requires substantial funds in addition to the proceeds from the sale of the Securities; (ii) an investment in the Company is speculative, and only purchasers who can afford the loss of their entire investment should consider investing in the Company and the Securities; (iii) such Buyer may not be able to liquidate its investment; (iv) transferability of the Securities is limited; (v) in the event of a disposition of the Securities, such Buyer could sustain the loss of its entire investment; and (vi) the Company has not paid any dividends on its Common Stock since inception and does not anticipate the payment of dividends in the foreseeable future.

(m) Acknowledgements Regarding Placement Agents. Such Buyer acknowledges that the Placement Agents are acting as the exclusive placement agents on a “best efforts” basis for the Securities being offered hereby and will be compensated by the Company for acting in such capacity. Such Buyer represents that (i) such Buyer was contacted regarding the sale of the Securities by the Placement Agents (or an authorized agent or representative thereof) with whom such Buyer had a substantial pre-existing relationship and who entered into a confidentiality agreement or otherwise agreed, orally or in writing, to keep information with respect to the transactions contemplated hereby confidential and (ii) to such Buyer’s knowledge, no Securities were offered or sold to such Buyer by means of any form of general solicitation or general advertising.

(n) Insider Participation Acknowledgement. Such Buyer understands and acknowledges that the Common Shares and Warrants may be purchased by officers, directors, employees, and affiliates of the Company, and by other Persons who will receive fees or other compensation or gain dependent upon the success of this offering of Common Shares and Warrants, including, without limitation, the Placement Agent and its employees and affiliates. Such purchases may be made at any time. Such Buyer therefore understands and acknowledges that it does and should not expect that the sale of sufficient Common Shares and Warrants to reach any specific amount to indicate that such sale has been made to Buyers who have no financial or other interest in this offering, or who otherwise are exercising independent investment discretion. The sale of any specific amount of Common Stock, while potentially desirable for purposes of the business operations of the Company, would not be designed as a protection to Buyers or to indicate that any Buyer’s investment decision is shared by other unaffiliated Buyers. Because there may be substantial purchases by officers, directors, employees and affiliates of the Company or by other persons who will receive fees or other compensation or gain dependent upon the success of this offering of Common Stock, no Buyer should place any reliance on the sale of any specific amount of Common Stock or any other amount of the common stock as an indication of the merits of this offering. Each Buyer must make such Buyer’s own investment decision as to the merits of the offering.

3. REPRESENTATIONS AND WARRANTIES OF THE COMPANY.

The Company represents and warrants to each of the Buyers and the Placement Agents that, as of the date hereof and as of the Closing Date:

(a) Organization and Qualification. Each of the Company and each of its Subsidiaries are entities duly organized and validly existing and in good standing under the laws of the jurisdiction in which they are formed, and have the requisite power and authority to own their properties and to carry on their business as now being conducted and as presently proposed to be conducted. Each of the Company and each of its Subsidiaries is duly qualified as a foreign entity to do business and is in good standing in every jurisdiction in which its ownership of property or the nature of the business conducted by it makes such qualification necessary, except to the extent that the failure to be so qualified or be in good standing would not reasonably be expected to have a Material Adverse Effect (as defined below). As used in this Agreement, “**Material Adverse Effect**” means any material adverse effect on (i) the business, properties, assets, liabilities, operations (including results thereof), condition (financial or otherwise) or prospects of the Company or any Subsidiary, individually or taken as a whole, (ii) the transactions contemplated hereby or in any of the other Transaction Documents or any other agreements or instruments to be entered into in connection herewith or therewith or (iii) the authority or ability of the Company or any of its Subsidiaries to perform any of their respective obligations under any of the Transaction Documents (as defined below). Other than the Persons (as defined below) set forth on Schedule 3(a), the Company has no Subsidiaries. “**Subsidiaries**” means any Person in which the Company, directly or indirectly, (I) owns any of the outstanding capital stock or holds any equity or similar interest of such Person or (II) controls or operates all or any part of the business, operations or administration of such Person, and each of the foregoing, is individually referred to herein as a “**Subsidiary**.”

(b) Authorization; Enforcement; Validity. The Company has the requisite power and authority to enter into and perform its obligations under this Agreement and the other Transaction Documents and to issue the Securities in accordance with the terms hereof and thereof. Each Subsidiary has the requisite power and authority to enter into and perform its obligations under the Transaction Documents to which it is a party. The execution and delivery of this Agreement and the other Transaction Documents by the Company and its Subsidiaries, and the consummation by the Company and its Subsidiaries of the transactions contemplated hereby and thereby (including, without limitation, the issuance of the Common Shares and the issuance of the Warrants and the reservation for issuance and issuance of the Warrant Shares issuable upon exercise of the Warrants) have been duly authorized by the Company’s board of directors and each of its Subsidiaries’ board of directors or other governing body, as applicable, and (other than the filing with the SEC of one or more Registration Statements in accordance with the requirements of the Registration Rights Agreement, a Form D with the SEC and any other filings as may be required by any state securities agencies) no further filing, consent or authorization is required by the Company, its Subsidiaries, their respective boards of directors or their stockholders or other governing body. This Agreement has been, and the other Transaction Documents to which it is a party will be prior to the Closing, duly executed and delivered by the Company, and each constitutes the legal, valid and binding obligations of the Company, enforceable against the Company in accordance with its respective terms, except as such enforceability may be limited by general principles of equity or applicable bankruptcy, insolvency, reorganization, moratorium, liquidation or similar laws relating to, or affecting generally, the enforcement of applicable creditors’ rights and remedies and except as rights to indemnification and to contribution may be limited by federal or state securities law. “**Transaction Documents**” means, collectively, this Agreement, the Common Shares, the Warrants, the Voting Agreements (as defined below), the Registration Rights Agreement, the Irrevocable Transfer Agent Instructions (as defined below) and each of the other agreements and instruments entered into or delivered by any of the parties hereto in connection with the transactions contemplated hereby and thereby, as may be amended from time to time.

(c) Issuance of Securities. The issuance of the Common Shares and the Warrants are duly authorized and upon issuance in accordance with the terms of the Transaction Documents shall be validly issued, fully paid and non-assessable and free from all preemptive or similar rights, mortgages, defects, claims, liens, pledges, charges, taxes, rights of first refusal, encumbrances, security interests and other encumbrances (collectively “**Liens**”) with respect to the issuance thereof. As of the Closing, the Company shall have reserved from its duly authorized capital stock not less than 100% of the maximum number of Warrant Shares initially issuable upon exercise of the Warrants (without taking into account any limitations on the exercise of the Warrants set forth therein). Upon issuance or exercise in accordance with the Warrants, the Warrant Shares, when issued, will be validly issued, fully paid and nonassessable and free from all preemptive or similar rights or Liens with respect to the issue thereof, with the holders being entitled to all rights accorded to a holder of Common Stock. Subject to the accuracy of the representations and warranties of the Buyers in this Agreement, the offer and issuance by the Company of the Securities is exempt from registration under the 1933 Act.

(d) No Conflicts. The execution, delivery and performance of the Transaction Documents by the Company and the consummation by the Company of the transactions contemplated hereby and thereby (including, without limitation, the issuance of the Common Shares, the Warrants and the Warrant Shares and the reservation for issuance of the Warrant Shares) will not (i) result in a violation of the Certificate of Incorporation (as defined below) (including, without limitation, any certificate of designation contained therein), Bylaws (as defined below), certificate of formation, memorandum of association, articles of association, bylaws or other organizational documents of the Company or any of its Subsidiaries, or any capital stock or other securities of the Company or any of its Subsidiaries, (ii) conflict with, or constitute a default (or an event which with notice or lapse of time or both would become a default) in any respect under, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, indenture or instrument to which the Company or any of its Subsidiaries is a party, or (iii) result in a violation of any law, rule, regulation, order, judgment or decree (including, without limitation, foreign, federal and state securities laws and regulations and the rules and regulations of the Nasdaq Capital Market (the “**Principal Market**”) and including all applicable foreign, federal and state laws, rules and regulations) applicable to the Company or any of its Subsidiaries or by which any property or asset of the Company or any of its Subsidiaries is bound or affected.

(e) Consents. Neither the Company nor any Subsidiary is required to obtain any consent from, authorization or order of, or make any filing or registration with (other than the filing with the SEC of one or more Registration Statements in accordance with the requirements of the Registration Rights Agreement, a Form D with the SEC and any other filings as may be required by any state securities agencies), any Governmental Entity (as defined below) or any regulatory or self-regulatory agency or any other Person in order for it to execute, deliver or perform any of its respective obligations under or contemplated by the Transaction Documents, in each case, in accordance with the terms hereof or thereof. All consents, authorizations, orders, filings and registrations which the Company or any Subsidiary is required to obtain pursuant to the preceding sentence have been or will be obtained or effected on or prior to the Closing Date, and neither the Company nor any of its Subsidiaries are aware of any facts or circumstances which might prevent the Company or any of its Subsidiaries from obtaining or effecting any of the registration, application or filings contemplated by the Transaction Documents. The Company is not in violation of the requirements of the Principal Market and has no knowledge of any facts or circumstances which could reasonably lead to delisting or suspension of the Common Stock in the foreseeable future. “**Governmental Entity**” means any nation, state, county, city, town, village, district, or other political jurisdiction of any nature, federal, state, local, municipal, foreign, or other government, governmental or quasi-governmental authority of any nature (including any governmental agency, branch, department, official, or entity and any court or other tribunal), multi-national organization or body; or body exercising, or entitled to exercise, any administrative, executive, judicial, legislative, police, regulatory, or taxing authority or power of any nature or instrumentality of any of the foregoing, including any entity or enterprise owned or controlled by a government or a public international organization or any of the foregoing.

(f) Acknowledgment Regarding Buyer’s Purchase of Securities. The Company acknowledges and agrees that each Buyer is acting solely in the capacity of an arm’s length purchaser with respect to the Transaction Documents and the transactions contemplated hereby and thereby and that no Buyer is (i) an officer or director of the Company or any of its Subsidiaries, (ii) an “affiliate” (as defined in Rule 144) of the Company or any of its Subsidiaries or (iii) to its knowledge, a “beneficial owner” of more than 10% of the shares of Common Stock (as defined for purposes of Rule 13d-3 of the Securities Exchange Act of 1934, as amended (the “**1934 Act**”). The Company further acknowledges that no Buyer is acting as a financial advisor or fiduciary of the Company or any of its Subsidiaries (or in any similar capacity) with respect to the Transaction Documents and the transactions contemplated hereby and thereby, and any advice given by a Buyer or any of its representatives or agents in connection with the Transaction Documents and the transactions contemplated hereby and thereby is merely incidental to such Buyer’s purchase of the Securities. The Company further represents to each Buyer that the Company’s and each Subsidiary’s decision to enter into the Transaction Documents to which it is a party has been based solely on the independent evaluation by the Company, each Subsidiary and their respective representatives.

(g) No General Solicitation; Placement Agent's Fees. Neither the Company, nor any of its Subsidiaries or affiliates, nor any Person acting on its or their behalf, has engaged in any form of general solicitation or general advertising (within the meaning of Regulation D) in connection with the offer or sale of the Securities. The Company shall be responsible for the payment of any placement agents' fees, financial advisory fees, or brokers' commissions (other than for Persons engaged by any Buyer or its investment advisor) relating to or arising out of the transactions contemplated hereby, including, without limitation, placement agent fees payable to the Placement Agents in connection with the sale of the Securities. The fees and expenses of the Placement Agents to be paid by the Company or any of its Subsidiaries are as set forth on Schedule 3(g) attached hereto. The Company shall pay, and hold each Buyer harmless against, any liability, loss or expense (including, without limitation, attorney's fees and out-of-pocket expenses) arising in connection with any such claim. The Company acknowledges that it has engaged the Placement Agents in connection with the sale of the Securities. Other than the Placement Agents, neither the Company nor any of its Subsidiaries has engaged any placement agent or other agent in connection with the offer or sale of the Securities.

(h) No Integrated Offering. None of the Company, its Subsidiaries or any of their affiliates, nor any Person acting on 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 require registration of the issuance of any of the Securities under the 1933 Act, whether through integration with prior offerings or otherwise, or cause this offering of the Securities to require approval of stockholders of the Company for purposes of the 1933 Act or under any applicable stockholder approval provisions, including, without limitation, under the rules and regulations of any exchange or automated quotation system on which any of the securities of the Company are listed or designated for quotation. None of the Company, its Subsidiaries, their affiliates nor any Person acting on their behalf will take any action or steps that would require registration of the issuance of any of the Securities under the 1933 Act or cause the offering of any of the Securities to be integrated with other offerings of securities of the Company.

(i) Dilutive Effect. The Company understands and acknowledges that the number of Warrant Shares will increase in certain circumstances. The Company further acknowledges that its obligation to issue the Warrant Shares upon exercise of the Warrants in accordance with this Agreement and the Warrants is absolute and unconditional regardless of the dilutive effect that such issuance may have on the ownership interests of other stockholders of the Company.

(j) Application of Takeover Protections; Rights Agreement. The Company and its board of directors have taken all necessary action, if any, in order to render inapplicable any control share acquisition, interested stockholder, business combination, poison pill (including, without limitation, any distribution under a rights agreement), stockholder rights plan or other similar anti-takeover provision under the Certificate of Incorporation, Bylaws or other organizational documents or the laws of the jurisdiction of its incorporation or otherwise which is or could become applicable to any Buyer as a result of the transactions contemplated by this Agreement, including, without limitation, the Company's issuance of the Securities and any Buyer's ownership of the Securities. The Company and its board of directors have taken all necessary action, if any, in order to render inapplicable any stockholder rights plan or similar arrangement relating to accumulations of beneficial ownership of shares of Common Stock or a change in control of the Company or any of its Subsidiaries.

(k) SEC Documents; Financial Statements. During the two (2) years prior to the date hereof, the Company has timely filed all reports, schedules, forms, proxy statements, statements and other documents required to be filed by it with the SEC pursuant to the reporting requirements of the 1934 Act (all of the foregoing filed prior to the date hereof and all exhibits and appendices included therein and financial statements, notes and schedules thereto and documents incorporated by reference therein being hereinafter referred to as the “**SEC Documents**”). The Company has delivered or has made available to the Buyers or their respective representatives true, correct and complete copies of each of the SEC Documents not available on the EDGAR system. As of their respective dates, the SEC Documents complied in all material respects with the requirements of the 1934 Act and the rules and regulations of the SEC promulgated thereunder applicable to the SEC Documents, and none of the SEC Documents, at the time they were filed with the SEC, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. As of their respective dates, the financial statements of the Company included in the SEC Documents complied in all material respects with applicable accounting requirements and the published rules and regulations of the SEC with respect thereto as in effect as of the time of filing. Such financial statements have been prepared in accordance with generally accepted accounting principles (“**GAAP**”), consistently applied, during the periods involved (except (i) as may be otherwise indicated in such financial statements or the notes thereto, or (ii) in the case of unaudited interim statements, to the extent they may exclude footnotes or may be condensed or summary statements) and fairly present in all material respects the financial position of the Company as of the dates thereof and the results of its operations and cash flows for the periods then ended (subject, in the case of unaudited statements, to normal year-end audit adjustments which will not be material, either individually or in the aggregate). The reserves, if any, established by the Company or the lack of reserves, if applicable, are reasonable based upon facts and circumstances known by the Company on the date hereof and there are no loss contingencies that are required to be accrued by the Statement of Financial Accounting Standard No. 5 of the Financial Accounting Standards Board which are not provided for by the Company in its financial statements or otherwise. No other information provided by or on behalf of the Company to any of the Buyers which is not included in the SEC Documents (including, without limitation, information referred to in Section 2(e) of this Agreement or in the disclosure schedules to this Agreement) contains any untrue statement of a material fact or omits to state any material fact necessary in order to make the statements therein not misleading, in the light of the circumstance under which they are or were made. The Company is not currently contemplating to amend or restate any of the financial statements (including, without limitation, any notes or any letter of the independent accountants of the Company with respect thereto) included in the SEC Documents (the “**Financial Statements**”), nor is the Company currently aware of facts or circumstances which would require the Company to amend or restate any of the Financial Statements, in each case, in order for any of the Financials Statements to be in compliance with GAAP and the rules and regulations of the SEC. The Company has not been informed by its independent accountants that they recommend that the Company amend or restate any of the Financial Statements or that there is any need for the Company to amend or restate any of the Financial Statements.

(l) Absence of Certain Changes. Since the date of the Company's most recent audited financial statements contained in a Form 10-K, there has been no material adverse change and no material adverse development in the business, assets, liabilities, properties, operations (including results thereof), condition (financial or otherwise) or prospects of the Company or any of its Subsidiaries. Since the date of the Company's most recent audited financial statements contained in a Form 10-K, neither the Company nor any of its Subsidiaries has (i) declared or paid any dividends, (ii) sold any assets, individually or in the aggregate, outside of the ordinary course of business or (iii) made any capital expenditures, individually or in the aggregate, outside of the ordinary course of business. Neither the Company nor any of its Subsidiaries has taken any steps to seek protection pursuant to any law or statute relating to bankruptcy, insolvency, reorganization, receivership, liquidation or winding up, nor does the Company or any Subsidiary have any knowledge or reason to believe that any of their respective creditors intend to initiate involuntary bankruptcy proceedings or any actual knowledge of any fact which would reasonably lead a creditor to do so. The Company and its Subsidiaries, individually and on a consolidated basis, are not as of the date hereof, and after giving effect to the transactions contemplated hereby to occur at the Closing, will not be Insolvent (as defined below). For purposes of this Section 3(l), "**Insolvent**" means, (i) with respect to the Company and its Subsidiaries, on a consolidated basis, (A) the present fair saleable value of the Company's and its Subsidiaries' assets is less than the amount required to pay the Company's and its Subsidiaries' total Indebtedness (as defined below), (B) the Company and its Subsidiaries are unable to pay their debts and liabilities, subordinated, contingent or otherwise, as such debts and liabilities become absolute and matured or (C) the Company and its Subsidiaries intend to incur or believe that they will incur debts that would be beyond their ability to pay as such debts mature; and (ii) with respect to the Company and each Subsidiary, individually, (A) the present fair saleable value of the Company's or such Subsidiary's (as the case may be) assets is less than the amount required to pay its respective total Indebtedness, (B) the Company or such Subsidiary (as the case may be) is unable to pay its respective debts and liabilities, subordinated, contingent or otherwise, as such debts and liabilities become absolute and matured or (C) the Company or such Subsidiary (as the case may be) intends to incur or believes that it will incur debts that would be beyond its respective ability to pay as such debts mature. Neither the Company nor any of its Subsidiaries has engaged in any business or in any transaction, and is not about to engage in any business or in any transaction, for which the Company's or such Subsidiary's remaining assets constitute unreasonably small capital with which to conduct the business in which it is engaged as such business is now conducted and is proposed to be conducted.

(m) No Undisclosed Events, Liabilities, Developments or Circumstances. No event, liability, development or circumstance has occurred or exists, or is reasonably expected to exist or occur with respect to the Company, any of its Subsidiaries or any of their respective businesses, properties, liabilities, prospects, operations (including results thereof) or condition (financial or otherwise), that (i) would be required to be disclosed by the Company under applicable securities laws on a registration statement on Form S-1 filed with the SEC relating to an issuance and sale by the Company of its Common Stock and which has not been publicly announced, (ii) could have a material adverse effect on any Buyer's investment hereunder or (iii) could have a Material Adverse Effect.

(n) Conduct of Business; Regulatory Permits. Neither the Company nor any of its Subsidiaries is in violation of any term of or in default under its Certificate of Incorporation, any certificate of designation, preferences or rights of any other outstanding series of preferred stock of the Company or any of its Subsidiaries or Bylaws or their organizational charter, certificate of formation, memorandum of association, articles of association, Certificate of Incorporation or certificate of incorporation or bylaws, respectively. Neither the Company nor any of its Subsidiaries is in violation of any judgment, decree or order or any statute, ordinance, rule or regulation applicable to the Company or any of its Subsidiaries, and neither the Company nor any of its Subsidiaries will conduct its business in violation of any of the foregoing, except in all cases for possible violations which could not, individually or in the aggregate, have a Material Adverse Effect. Without limiting the generality of the foregoing, the Company is not in violation of any of the rules, regulations or requirements of the Principal Market and has no knowledge of any facts or circumstances that could reasonably lead to delisting or suspension of the Common Stock by the Principal Market in the foreseeable future. During the two years prior to the date hereof, (i) the Common Stock has been listed or designated for quotation on the Principal Market, (ii) trading in the Common Stock has not been suspended by the SEC or the Principal Market and (iii) the Company has received no communication, written or oral, from the SEC or the Principal Market regarding the suspension or delisting of the Common Stock from the Principal Market. The Company and each of its Subsidiaries possess all certificates, authorizations and permits issued by the appropriate regulatory authorities necessary to conduct their respective businesses, except where the failure to possess such certificates, authorizations or permits would not have, individually or in the aggregate, a Material Adverse Effect, and neither the Company nor any such Subsidiary has received any notice of proceedings relating to the revocation or modification of any such certificate, authorization or permit. There is no agreement, commitment, judgment, injunction, order or decree binding upon the Company or any of its Subsidiaries or to which the Company or any of its Subsidiaries is a party which has or would reasonably be expected to have the effect of prohibiting or materially impairing any business practice of the Company or any of its Subsidiaries, any acquisition of property by the Company or any of its Subsidiaries or the conduct of business by the Company or any of its Subsidiaries as currently conducted other than such effects, individually or in the aggregate, which have not had and would not reasonably be expected to have a Material Adverse Effect on the Company or any of its Subsidiaries.

(o) Foreign Corrupt Practices. Neither the Company, the Company's subsidiary or any director, officer, agent, employee, nor any other person acting for or on behalf of the foregoing (individually and collectively, a "**Company Affiliate**") have violated the U.S. Foreign Corrupt Practices Act (the "**FCPA**") or any other applicable anti-bribery or anti-corruption laws, nor has any Company Affiliate offered, paid, promised to pay, or authorized the payment of any money, or offered, given, promised to give, or authorized the giving of anything of value, to any officer, employee or any other person acting in an official capacity for any Governmental Entity to any political party or official thereof or to any candidate for political office (individually and collectively, a "**Government Official**") or to any person under circumstances where such Company Affiliate knew or was aware of a high probability that all or a portion of such money or thing of value would be offered, given or promised, directly or indirectly, to any Government Official, for the purpose of:

(i) (A) influencing any act or decision of such Government Official in his/her official capacity, (B) inducing such Government Official to do or omit to do any act in violation of his/her lawful duty, (C) securing any improper advantage, or (D) inducing such Government Official to influence or affect any act or decision of any Governmental Entity, or

(ii) assisting the Company or its Subsidiaries in obtaining or retaining business for or with, or directing business to, the Company or its Subsidiaries.

(p) Sarbanes-Oxley Act. The Company and each Subsidiary is in compliance with any and all applicable requirements of the Sarbanes-Oxley Act of 2002, as amended, and any and all applicable rules and regulations promulgated by the SEC thereunder.

(q) Transactions With Affiliates. No current or former employee, partner, director, officer or stockholder (direct or indirect) of the Company or its Subsidiaries, or any associate, or, to the knowledge of the Company, any affiliate of any thereof, or any relative with a relationship no more remote than first cousin of any of the foregoing, is presently, or has ever been, (i) a party to any transaction with the Company or its Subsidiaries (including any contract, agreement or other arrangement providing for the furnishing of services by, or rental of real or personal property from, or otherwise requiring payments to, any such director, officer or stockholder or such associate or affiliate or relative Subsidiaries (other than for ordinary course services as employees, officers or directors of the Company or any of its Subsidiaries)) or (ii) the direct or indirect owner of an interest in any corporation, firm, association or business organization which is a competitor, supplier or customer of the Company or its Subsidiaries (except for a passive investment (direct or indirect) in less than 5% of the common stock of a company whose securities are traded on or quoted through an Eligible Market (as defined in the Warrants)), nor does any such Person receive income from any source other than the Company or its Subsidiaries which relates to the business of the Company or its Subsidiaries or should properly accrue to the Company or its Subsidiaries. No employee, officer, stockholder or director of the Company or any of its Subsidiaries or member of his or her immediate family is indebted to the Company or its Subsidiaries, as the case may be, nor is the Company or any of its Subsidiaries indebted (or committed to make loans or extend or guarantee credit) to any of them, other than (i) for payment of salary for services rendered, (ii) reimbursement for reasonable expenses incurred on behalf of the Company, and (iii) for other standard employee benefits made generally available to all employees or executives (including stock option agreements outstanding under any stock option plan approved by the Board of Directors of the Company).

(r) Equity Capitalization.

(i) Definitions:

(A) “**Common Stock**” means (x) the Company’s shares of common stock, \$0.001 par value per share, and (y) any capital stock into which such common stock shall have been changed or any share capital resulting from a reclassification of such common stock.

(B) “**Preferred Stock**” means (x) the Company’s blank check preferred stock, \$0.001 par value per share, the terms of which may be designated by the board of directors of the Company in a certificate of designations and (y) any capital stock into which such preferred stock shall have been changed or any share capital resulting from a reclassification of such preferred stock (other than a conversion of such preferred stock into Common Stock in accordance with the terms of such certificate of designations).

(ii) Authorized and Outstanding Capital Stock. As of the date hereof, the authorized capital stock of the Company consists of (A) 30,000,000 shares of Common Stock, of which, 8,923,490 are issued and outstanding and no shares are reserved for issuance pursuant to Common Stock Equivalents (as defined below) (other than the Warrants) exercisable or exchangeable for, or convertible into, shares of Common Stock and (B) 5,000,000 shares of Preferred Stock, none of which are issued and outstanding. No shares of Common Stock are held in the treasury of the Company. “**Common Stock Equivalents**” means any capital stock or other security of the Company or any of its Subsidiaries 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 capital stock or other security of the Company (including, without limitation, Common Stock) or any of its Subsidiaries.

(iii) Valid Issuance; Available Shares; Affiliates. All of such outstanding shares are duly authorized and have been, or upon issuance will be, validly issued and are fully paid and nonassessable. Schedule 3(f)(iii) sets forth the number of shares of Common Stock that are (A) reserved for issuance pursuant to Common Stock Equivalents (as defined below) (other than the Warrants) and (B) that are, as of the date hereof, owned by Persons who are “affiliates” (as defined in Rule 405 of the 1933 Act and calculated based on the assumption that only officers, directors and holders of at least 10% of the Company’s issued and outstanding Common Stock are “affiliates” without conceding that any such Persons are “affiliates” for purposes of federal securities laws) of the Company or any of its Subsidiaries. To the Company’s knowledge, no Person owns 10% or more of the Company’s issued and outstanding shares of Common Stock (calculated based on the assumption that all Common Stock Equivalents (as defined below), whether or not presently exercisable or convertible, have been fully exercised or converted (as the case may be) taking account of any limitations on exercise or conversion (including “blockers”) contained therein without conceding that such identified Person is a 10% stockholder for purposes of federal securities laws).

(iv) Existing Securities; Obligations. Except as disclosed in the SEC Documents: (A) none of the Company’s or any Subsidiary’s shares, interests or capital stock is subject to preemptive rights or any other similar rights or Liens suffered or permitted by the Company or any Subsidiary; (B) there are no outstanding options, warrants, scrip, rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities or rights convertible into, or exercisable or exchangeable for, any shares, interests or capital stock of the Company or any of its Subsidiaries, or contracts, commitments, understandings or arrangements by which the Company or any of its Subsidiaries is or may become bound to issue additional shares, interests or capital stock of the Company or any of its Subsidiaries or options, warrants, scrip, rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities or rights convertible into, or exercisable or exchangeable for, any shares, interests or capital stock of the Company or any of its Subsidiaries; (C) there are no agreements or arrangements under which the Company or any of its Subsidiaries is obligated to register the sale of any of their securities under the 1933 Act (except pursuant to the Registration Rights Agreement); (D) there are no outstanding securities or instruments of the Company or any of its Subsidiaries which contain any redemption or similar provisions, and there are no contracts, commitments, understandings or arrangements by which the Company or any of its Subsidiaries is or may become bound to redeem a security of the Company or any of its Subsidiaries; (E) there are no securities or instruments containing anti-dilution or similar provisions that will be triggered by the issuance of the Securities; and (F) neither the Company nor any Subsidiary has any stock appreciation rights or “phantom stock” plans or agreements or any similar plan or agreement.

(v) Organizational Documents. The Company has furnished to the Buyers true, correct and complete copies of the Company's Certificate of Incorporation, as amended and as in effect on the date hereof (the "**Certificate of Incorporation**"), and the Company's bylaws, as amended and as in effect on the date hereof (the "**Bylaws**"), and the terms of all Common Stock Equivalents and the material rights of the holders thereof in respect thereto.

(s) Indebtedness and Other Contracts. Neither the Company nor any of its Subsidiaries, (i) except as disclosed on Schedule 3(r), has any outstanding debt securities, notes, credit agreements, credit facilities or other agreements, documents or instruments evidencing Indebtedness of the Company or any of its Subsidiaries or by which the Company or any of its Subsidiaries is or may become bound, (ii) is a party to any contract, agreement or instrument, the violation of which, or default under which, by the other party(ies) to such contract, agreement or instrument could reasonably be expected to result in a Material Adverse Effect, (iii) has any financing statements securing obligations in any amounts filed in connection with the Company or any of its Subsidiaries; (iv) is in violation of any term of, or in default under, any contract, agreement or instrument relating to any Indebtedness, except where such violations and defaults would not result, individually or in the aggregate, in a Material Adverse Effect, or (v) is a party to any contract, agreement or instrument relating to any Indebtedness, the performance of which, in the judgment of the Company's officers, has or is expected to have a Material Adverse Effect. Neither the Company nor any of its Subsidiaries have any liabilities or obligations required to be disclosed in the SEC Documents which are not so disclosed in the SEC Documents, other than those incurred in the ordinary course of the Company's or its Subsidiaries' respective businesses and which, individually or in the aggregate, do not or could not have a Material Adverse Effect. For purposes of this Agreement: (x) "**Indebtedness**" of any Person means, without duplication (A) all indebtedness for borrowed money, (B) all obligations issued, undertaken or assumed as the deferred purchase price of property or services (including, without limitation, "capital leases" in accordance with GAAP) (other than trade payables entered into in the ordinary course of business consistent with past practice), (C) all reimbursement or payment obligations with respect to letters of credit, surety bonds and other similar instruments, (D) all obligations evidenced by notes, bonds, debentures or similar instruments, including obligations so evidenced incurred in connection with the acquisition of property, assets or businesses, (E) all indebtedness created or arising under any conditional sale or other title retention agreement, or incurred as financing, in either case with respect to any property or assets acquired with the proceeds of such indebtedness (even though the rights and remedies of the seller or bank under such agreement in the event of default are limited to repossession or sale of such property), (F) all monetary obligations under any leasing or similar arrangement which, in connection with GAAP, consistently applied for the periods covered thereby, is classified as a capital lease, (G) all indebtedness referred to in clauses (A) through (F) above secured by (or for which the holder of such Indebtedness has an existing right, contingent or otherwise, to be secured by) any Lien upon or in any property or assets (including accounts and contract rights) owned by any Person, even though the Person which owns such assets or property has not assumed or become liable for the payment of such indebtedness, and (H) all Contingent Obligations in respect of indebtedness or obligations of others of the kinds referred to in clauses (A) through (G) above; and (y) "**Contingent Obligation**" means, as to any Person, any direct or indirect liability, contingent or otherwise, of that Person with respect to any Indebtedness, lease, dividend or other obligation of another Person if the primary purpose or intent of the Person incurring such liability, or the primary effect thereof, is to provide assurance to the obligee of such liability that such liability will be paid or discharged, or that any agreements relating thereto will be complied with, or that the holders of such liability will be protected (in whole or in part) against loss with respect thereto.

(t) Litigation. There is no action, suit, arbitration, proceeding, inquiry or investigation before or by the Principal Market, any court, public board, other Governmental Entity, self-regulatory organization or body pending or, to the knowledge of the Company, threatened against or affecting the Company or any of its Subsidiaries, the Common Stock or any of the Company's or its Subsidiaries' officers or directors, whether of a civil or criminal nature or otherwise, in their capacities as such, except as set forth in Schedule 3(t). No director, officer or employee of the Company or any of its subsidiaries has willfully violated 18 U.S.C. §1519 or engaged in spoliation in reasonable anticipation of litigation. Without limitation of the foregoing, there has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the SEC involving the Company, any of its Subsidiaries or any current or former director or officer of the Company or any of its Subsidiaries. The SEC has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company under the 1933 Act or the 1934 Act. After reasonable inquiry of its employees, the Company is not aware of any fact which might result in or form the basis for any such action, suit, arbitration, investigation, inquiry or other proceeding. Neither the Company nor any of its Subsidiaries is subject to any order, writ, judgment, injunction, decree, determination or award of any Governmental Entity.

(u) Insurance. The Company and each of its Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as management of the Company believes to be prudent and customary in the businesses in which the Company and its Subsidiaries are engaged. Neither the Company nor any such Subsidiary has been refused any insurance coverage sought or applied for, and neither the Company nor any such Subsidiary has any reason to believe that it will be unable 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 at a cost that would not have a Material Adverse Effect.

(v) Employee Relations. Neither the Company nor any of its Subsidiaries is a party to any collective bargaining agreement or employs any member of a union. The Company and its Subsidiaries believe that their relations with their employees are good. No executive officer (as defined in Rule 501(f) promulgated under the 1933 Act) or other key employee of the Company or any of its Subsidiaries has notified the Company or any such Subsidiary that such officer intends to leave the Company or any such Subsidiary or otherwise terminate such officer's employment with the Company or any such Subsidiary. No executive officer or other key employee of the Company or any of its Subsidiaries is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement, non-competition agreement, or any other contract or agreement or any restrictive covenant, and the continued employment of each such executive officer or other key employee (as the case may be) does not subject the Company or any of its Subsidiaries to any liability with respect to any of the foregoing matters. The Company and its Subsidiaries are in compliance with all federal, state, local and foreign laws and regulations respecting labor, employment and employment practices and benefits, terms and conditions of employment and wages and hours, except where failure to be in compliance would not, either individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

(w) Title.

(i) Real Property. Each of the Company and its Subsidiaries holds good title to all real property, leases in real property, facilities or other interests in real property owned or held by the Company or any of its Subsidiaries (the “**Real Property**”) owned by the Company or any of its Subsidiaries (as applicable). The Real Property is free and clear of all Liens and is not subject to any rights of way, building use restrictions, exceptions, variances, reservations, or limitations of any nature except for (a) Liens for current taxes not yet due and (b) zoning laws and other land use restrictions that do not impair the present or anticipated use of the property subject thereto. Any Real Property held under lease by the Company or any of its Subsidiaries are held by them under valid, subsisting and enforceable leases with such exceptions as are not material and do not interfere with the use made and proposed to be made of such property and buildings by the Company or any of its Subsidiaries.

(ii) Fixtures and Equipment. Each of the Company and its Subsidiaries (as applicable) has good title to, or a valid leasehold interest in, the tangible personal property, equipment, improvements, fixtures, and other personal property and appurtenances that are used by the Company or its Subsidiary in connection with the conduct of its business (the “**Fixtures and Equipment**”). The Fixtures and Equipment are structurally sound, are in good operating condition and repair, are adequate for the uses to which they are being put, are not in need of maintenance or repairs except for ordinary, routine maintenance and repairs and are sufficient for the conduct of the Company’s and/or its Subsidiaries’ businesses (as applicable) in the manner as conducted prior to the Closing. Each of the Company and its Subsidiaries owns all of its Fixtures and Equipment free and clear of all Liens except for (a) liens for current taxes not yet due and (b) zoning laws and other land use restrictions that do not impair the present or anticipated use of the property subject thereto.

(x) Intellectual Property Rights. The Company and its Subsidiaries own or possess adequate rights or licenses to use all trademarks, trade names, service marks, service mark registrations, service names, original works of authorship, patents, patent rights, copyrights, inventions, licenses, approvals, governmental authorizations, trade secrets and other intellectual property rights and all applications and registrations therefor (“**Intellectual Property Rights**”) necessary to conduct their respective businesses as now conducted and presently proposed to be conducted. Each of patents owned by the Company or any of its Subsidiaries is listed on Schedule 3(x)(i). Except as set forth in Schedule 3(x)(ii), none of the Company’s Intellectual Property Rights have expired or terminated or have been abandoned or are expected to expire or terminate or are expected to be abandoned, within three years from the date of this Agreement. The Company does not have any knowledge of any infringement by the Company or its Subsidiaries of Intellectual Property Rights of others. There is no claim, action or proceeding being made or brought, or to the knowledge of the Company or any of its Subsidiaries, being threatened, against the Company or any of its Subsidiaries regarding its Intellectual Property Rights. Neither the Company nor any of its Subsidiaries is aware of any facts or circumstances which might give rise to any of the foregoing infringements or claims, actions or proceedings. The Company and its Subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all of their Intellectual Property Rights.

(y) Environmental Laws. (i) The Company and its Subsidiaries (A) are in compliance with any and all Environmental Laws (as defined below), (B) have received all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses and (C) are in compliance with all terms and conditions of any such permit, license or approval where, in each of the foregoing clauses (A), (B) and (C), the failure to so comply could be reasonably expected to have, individually or in the aggregate, a Material Adverse Effect. The term “**Environmental Laws**” means all federal, state, local or foreign laws relating to pollution or protection of human health or the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata), including, without limitation, 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.

(ii) No Hazardous Materials:

(A) have been disposed of or otherwise released from any Real Property of the Company or any of its Subsidiaries in violation of any Environmental Laws; or

(B) are present on, over, beneath, in or upon any Real Property or any portion thereof in quantities that would constitute a violation of any Environmental Laws. No prior use by the Company or any of its Subsidiaries of any Real Property has occurred that violates any Environmental Laws, which violation would have a material adverse effect on the business of the Company or any of its Subsidiaries.

(iii) Neither the Company nor any of its Subsidiaries knows of any other person who or entity which has stored, treated, recycled, disposed of or otherwise located on any Real Property any Hazardous Materials, including, without limitation, such substances as asbestos and polychlorinated biphenyls.

(iv) None of the Real Properties are on any federal or state “Superfund” list or Liability Information System (“**CERCLIS**”) list or any state environmental agency list of sites under consideration for CERCLIS, nor subject to any environmental related Liens.

(z) Subsidiary Rights. The Company or one of its Subsidiaries 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 the Company or such Subsidiary.

(aa) Tax Status. The Company and each of its Subsidiaries (i) has timely made or filed all foreign, federal and state income and all other tax returns, reports and declarations required by any jurisdiction to which it is subject, (ii) has timely 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, except those being contested in good faith and (iii) has set aside on its books provision reasonably adequate for the payment of all 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 and its Subsidiaries know of no basis for any such claim. The Company is not operated in such a manner as to qualify as a passive foreign investment company, as defined in Section 1297 of the Internal Revenue Code of 1986, as amended (the “**Code**”). The net operating loss carryforwards (“**NOLs**”) for United States federal income tax purposes of the consolidated group of which the Company is the common parent, if any, shall not be adversely effected by the transactions contemplated hereby. The transactions contemplated hereby do not constitute an “ownership change” within the meaning of Section 382 of the Code, thereby preserving the Company’s ability to utilize such NOLs.

(bb) Internal Accounting and Disclosure Controls. The Company and each of its Subsidiaries maintains internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the 1934 Act) that is effective to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, including 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 and liability accountability, (iii) access to assets or incurrence of liabilities is permitted only in accordance with management’s general or specific authorization and (iv) the recorded accountability for assets and liabilities is compared with the existing assets and liabilities at reasonable intervals and appropriate action is taken with respect to any difference. The Company maintains disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the 1934 Act) that are effective in ensuring that information required to be disclosed by the Company in the reports that it files or submits under the 1934 Act is recorded, processed, summarized and reported, within the time periods specified in the rules and forms of the SEC, including, without limitation, controls and procedures designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the 1934 Act is accumulated and communicated to the Company’s management, including its principal executive officer or officers and its principal financial officer or officers, as appropriate, to allow timely decisions regarding required disclosure. Neither the Company nor any of its Subsidiaries has received any notice or correspondence from any accountant, Governmental Entity or other Person relating to any potential material weakness or significant deficiency in any part of the internal controls over financial reporting of the Company or any of its Subsidiaries.

(cc) Off Balance Sheet Arrangements. There is no transaction, arrangement, or other relationship between the Company or any of its Subsidiaries and an unconsolidated or other off balance sheet entity that is required to be disclosed by the Company in its 1934 Act filings and is not so disclosed or that otherwise could be reasonably likely to have a Material Adverse Effect.

(dd) Investment Company Status. The Company is not, and upon consummation of the sale of the Securities will not be, an “investment company,” an affiliate of an “investment company,” a company controlled by an “investment company” or an “affiliated person” of, or “promoter” or “principal underwriter” for, an “investment company” as such terms are defined in the Investment Company Act of 1940, as amended.

(ee) Acknowledgement Regarding Buyers’ Trading Activity. It is understood and acknowledged by the Company that (i) following the public disclosure of the transactions contemplated by the Transaction Documents, in accordance with the terms thereof, none of the Buyers have been asked by the Company or any of its Subsidiaries to agree, nor has any Buyer agreed with the Company or any of its Subsidiaries, to desist from effecting any transactions in or with respect to (including, without limitation, purchasing or selling, long and/or short) any securities of the Company, or “derivative” securities based on securities issued by the Company or to hold any of the Securities for any specified term; (ii) any Buyer, and counterparties in “derivative” transactions to which any such Buyer is a party, directly or indirectly, presently may have a “short” position in the Common Stock which was established prior to such Buyer’s knowledge of the transactions contemplated by the Transaction Documents; (iii) each Buyer shall not be deemed to have any affiliation with or control over any arm’s length counterparty in any “derivative” transaction; and (iv) each Buyer may rely on the Company’s obligation to timely deliver shares of Common Stock upon exercise or exchange, as applicable, of the Securities as and when required pursuant to the Transaction Documents for purposes of effecting trading in the Common Stock of the Company. The Company further understands and acknowledges that following the public disclosure of the transactions contemplated by the Transaction Documents pursuant to the Press Release (as defined below) one or more Buyers may engage in hedging and/or trading activities (including, without limitation, the location and/or reservation of borrowable shares of Common Stock) at various times during the period that the Securities are outstanding, including, without limitation, during the periods that the value and/or number of the Warrant Shares deliverable with respect to the Securities are being determined and such hedging and/or trading activities (including, without limitation, the location and/or reservation of borrowable shares of Common Stock), if any, can reduce the value of the existing stockholders’ equity interest in the Company both at and after the time the hedging and/or trading activities are being conducted. The Company acknowledges that such aforementioned hedging and/or trading activities do not constitute a breach of this Agreement, the Warrants or any other Transaction Document or any of the documents executed in connection herewith or therewith.

(ff) Manipulation of Price. Neither the Company nor any of its Subsidiaries has, and, to the knowledge of the Company, no Person acting on their behalf has, directly or indirectly, (i) taken any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company or any of its Subsidiaries to facilitate the sale or resale of any of the Securities, (ii) sold, bid for, purchased, or paid any compensation for soliciting purchases of, any of the Securities (other than the Placement Agents), (iii) paid or agreed to pay to any Person any compensation for soliciting another to purchase any other securities of the Company or any of its Subsidiaries or (iv) paid or agreed to pay any Person for research services with respect to any securities of the Company or any of its Subsidiaries.

(gg) U.S. Real Property Holding Corporation. Neither the Company nor any of its Subsidiaries is, or has ever been, and so long as any of the Securities are held by any of the Buyers, shall become, a U.S. real property holding corporation within the meaning of Section 897 of the Code, and the Company and each Subsidiary shall so certify upon any Buyer's request.

(hh) Registration Eligibility. The Company is eligible to register the Registrable Securities for resale by the Buyers using Form S-3 promulgated under the 1933 Act.

(ii) Transfer Taxes. On the Closing Date, all stock transfer or other taxes (other than income or similar taxes) which are required to be paid in connection with the issuance, sale and transfer of the Securities to be sold to each Buyer hereunder will be, or will have been, fully paid or provided for by the Company, and all laws imposing such taxes will be or will have been complied with.

(ij) Bank Holding Company Act. Neither the Company nor any of its Subsidiaries 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 Subsidiaries or 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 Subsidiaries or 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.

(kk) Shell Company Status. The Company is not, and has never been, an issuer identified in, or subject to, Rule 144(i).

(ll) Illegal or Unauthorized Payments; Political Contributions. Neither the Company nor any of its Subsidiaries nor, to the best of the Company's knowledge (after reasonable inquiry of its officers and directors), any of the officers, directors, employees, agents or other representatives of the Company or any of its Subsidiaries or any other business entity or enterprise with which the Company or any Subsidiary is or has been affiliated or associated, has, directly or indirectly, made or authorized any payment, contribution or gift of money, property, or services, whether or not in contravention of applicable law, (i) as a kickback or bribe to any Person or (ii) to any political organization, or the holder of or any aspirant to any elective or appointive public office except for personal political contributions not involving the direct or indirect use of funds of the Company or any of its Subsidiaries.

(mm) Money Laundering. The Company and its Subsidiaries are in compliance with, and have not previously violated, the USA Patriot Act of 2001 and all other applicable U.S. and non-U.S. anti-money laundering laws and regulations, including, without limitation, the laws, regulations and Executive Orders and sanctions programs administered by the U.S. Office of Foreign Assets Control, including, but not limited, to (i) Executive Order 13224 of September 23, 2001 entitled, "Blocking Property and Prohibiting Transactions With Persons Who Commit, Threaten to Commit, or Support Terrorism" (66 Fed. Reg. 49079 (2001)); and (ii) any regulations contained in 31 CFR, Subtitle B, Chapter V.

(nn) Management. Except as set forth in Schedule 3(nn) hereto, during the past five year period, no current or former officer or director or, to the knowledge of the Company, no current ten percent (10%) or greater stockholder of the Company or any of its Subsidiaries has been the subject of:

(i) a petition under bankruptcy laws or any other insolvency or moratorium law or the appointment by a court of a receiver, fiscal agent or similar officer for such Person, or any partnership in which such person was a general partner at or within two years before the filing of such petition or such appointment, or any corporation or business association of which such person was an executive officer at or within two years before the time of the filing of such petition or such appointment;

(ii) a conviction in a criminal proceeding or a named subject of a pending criminal proceeding (excluding traffic violations that do not relate to driving while intoxicated or driving under the influence);

(iii) any order, judgment or decree, not subsequently reversed, suspended or vacated, of any court of competent jurisdiction, permanently or temporarily enjoining any such person from, or otherwise limiting, the following activities:

(1) Acting as a futures commission merchant, introducing broker, commodity trading advisor, commodity pool operator, floor broker, leverage transaction merchant, any other person regulated by the United States Commodity Futures Trading Commission or an associated person of any of the foregoing, or as an investment adviser, underwriter, broker or dealer in securities, or as an affiliated person, director or employee of any investment company, bank, savings and loan association or insurance company, or engaging in or continuing any conduct or practice in connection with such activity;

(2) Engaging in any particular type of business practice; or

(3) Engaging in any activity in connection with the purchase or sale of any security or commodity or in connection with any violation of securities laws or commodities laws;

(iv) any order, judgment or decree, not subsequently reversed, suspended or vacated, of any authority barring, suspending or otherwise limiting for more than sixty (60) days the right of any such person to engage in any activity described in the preceding sub paragraph, or to be associated with persons engaged in any such activity;

(v) a finding by a court of competent jurisdiction in a civil action or by the SEC or other authority to have violated any securities law, regulation or decree and the judgment in such civil action or finding by the SEC or any other authority has not been subsequently reversed, suspended or vacated; or

(vi) a finding by a court of competent jurisdiction in a civil action or by the Commodity Futures Trading Commission to have violated any federal commodities law, and the judgment in such civil action or finding has not been subsequently reversed, suspended or vacated.

(oo) Stock Option Plans. Each stock option granted by the Company was granted (i) in accordance with the terms of the applicable stock option plan of the Company and (ii) with an exercise price at least equal to the fair market value of the Common Stock on the date such stock option would be considered granted under GAAP and applicable law. No stock option granted under the Company's stock option plan has been backdated. The Company has not knowingly granted, and there is no and has been no policy or practice of the Company 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.

(pp) No Disagreements with Accountants and Lawyers. There are no material disagreements of any kind presently existing, or reasonably anticipated by the Company 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. In addition, on or prior to the date hereof, the Company had discussions with its accountants about its financial statements previously filed with the SEC. Based on those discussions, the Company has no reason to believe that it will need to restate any such financial statements or any part thereof.

(qq) No Disqualification Events. With respect to Securities to be offered and sold hereunder in reliance on Rule 506(b) under the 1933 Act ("**Regulation D Securities**"), none of the Company, any of its predecessors, any affiliated issuer, any director, executive officer, other officer of the Company participating in the offering contemplated hereby, any beneficial owner of 20% or more of the Company's outstanding voting equity securities, calculated on the basis of voting power, nor any promoter (as that term is defined in Rule 405 under the 1933 Act) connected with the Company in any capacity at the time of sale (each, an "**Issuer Covered Person**" and, together, "**Issuer Covered Persons**") is subject to any of the "Bad Actor" disqualifications described in Rule 506(d)(1)(i) to (viii) under the 1933 Act (a "**Disqualification Event**"), except for a Disqualification Event covered by Rule 506(d)(2) or (d)(3). The Company has exercised reasonable care to determine whether any Issuer Covered Person is subject to a Disqualification Event. The Company has complied, to the extent applicable, with its disclosure obligations under Rule 506(e), and has furnished to the Buyers a copy of any disclosures provided thereunder.

(rr) Other Covered Persons. The Company is not aware of any Person (other than the Placement Agents) that has been or will be paid (directly or indirectly) remuneration for solicitation of Buyers or potential purchasers in connection with the sale of any Regulation D Securities.

(ss) No Additional Agreements. The Company does not have any agreement or understanding with any Buyer with respect to the transactions contemplated by the Transaction Documents other than as specified in the Transaction Documents.

(tt) Public Utility Holding Act. None of the Company nor any of its Subsidiaries is a “holding company,” or an “affiliate” of a “holding company,” as such terms are defined in the Public Utility Holding Act of 2005.

(uu) Federal Power Act. None of the Company nor any of its Subsidiaries is subject to regulation as a “public utility” under the Federal Power Act, as amended.

(vv) Potential Products; FDA; EMEA.

(i) The Company possesses all certificates, authorizations and permits issued by the appropriate federal, state or foreign regulatory authorities necessary to conduct its business as currently conducted, including without limitation all such certificates, authorizations and permits required by the United States Food and Drug Administration (the “**FDA**”) or any other federal, state or foreign agencies or bodies engaged in the regulation of pharmaceuticals or biohazardous materials, except where the failure to so possess such certificates, authorizations and permits, individually or in the aggregate, would not result in a Material Adverse Effect. The Company has not received any notice of proceedings relating to the revocation or modification of any such certificate, authorization or permit which, individually or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would have a Material Adverse Effect.

(ii) The Company has not received any written notices or statements from the FDA, the European Medicines Agency (the “**EMA**”) or any other governmental agency, and otherwise has no knowledge or reason to believe, that (i) any drug candidate of the Company (each a “**Potential Product**”) may or will be rejected or determined to be non-approvable; (ii) a delay in time for review and/or approval of a marketing authorization application or marketing approval application in any jurisdiction for any Potential Product is or may be required, requested or being implemented; (iii) one or more clinical studies for any Potential Product shall or may be requested or required in addition to the clinical studies submitted to the FDA prior to the date hereof as a precondition to or condition of issuance or maintenance of a marketing approval for any Potential Product; (iv) any license, approval, permit or authorization to conduct any clinical trial of or market any product or Potential Product of the Company has been, will be or may be suspended, revoked, modified or limited, except in the cases of clauses (i), (ii), (iii) and (iv) where such rejections, determinations, delays, requests, suspensions, revocations, modifications or limitations might not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(iii) To the Company's knowledge, the preclinical and clinical testing, application for marketing approval of, manufacture, distribution, promotion and sale of the products and Potential Products of the Company is in compliance, in all material respects, with all laws, rules and regulations applicable to such activities, including without limitation applicable good laboratory practices, good clinical practices and good manufacturing practices, except for such non-compliance as would not, individually or in the aggregate, have a Material Adverse Effect. The Company is not aware of any studies, tests or trial the results of which reasonably call into question the results of the tests and trials conducted by or on behalf of the Company. The Company has not received notice of adverse finding, warning letter or clinical hold notice from the FDA or any non-U.S. counterpart of any of the foregoing, or any untitled letter or other correspondence or notice from the FDA or any other governmental authority or agency or any institutional or ethical review board alleging or asserting noncompliance with any law, rule or regulation applicable in any jurisdiction, except notices, letters, and correspondences and non-U.S. counterparts thereof alleging or asserting such noncompliance as would not, individually or in the aggregate, have a Material Adverse Effect. The Company has not, either voluntarily or involuntarily, initiated, conducted or issued, or caused to be initiated, conducted or issued, any recall, field correction, market withdrawal or replacement, safety alert, warning, "dear doctor" letter, investigator notice, or other notice or action relating to an alleged or potential lack of safety or efficacy of any product or Potential Product of the Company, any alleged product defect of any product or Potential Product of the Company, or any violation of any material applicable law, rule, regulation or any clinical trial or marketing license, approval, permit or authorization for any product or potential product of the Company, and the Company is not aware of any facts or information that would cause it to initiate any such notice or action and has no knowledge or reason to believe that the FDA, the EMEA or any other governmental agency or authority or any institutional or ethical review board or other non-governmental authority intends to impose, require, request or suggest such notice or action.

(ww) Cybersecurity. The Company and its Subsidiaries' information technology assets and equipment, computers, systems, networks, hardware, software, websites, applications, and databases (collectively, "**IT Systems**") are adequate for, and operate and perform in all material respects as required in connection with the operation of the business of the Company and its subsidiaries as currently conducted, free and clear of all material bugs, errors, defects, Trojan horses, time bombs, malware and other corruptants that would reasonably be expected to have a Material Adverse Effect on the Company's business. The Company and its Subsidiaries have implemented and maintained commercially reasonable physical, technical and administrative controls, policies, procedures, and safeguards to maintain and protect their material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and data, including "Personal Data," used in connection with their businesses. "**Personal Data**" means (i) a natural person's name, street address, telephone number, e-mail address, photograph, social security number or tax identification number, driver's license number, passport number, credit card number, bank information, or customer or account number; (ii) any information which would qualify as "personally identifying information" under the Federal Trade Commission Act, as amended; (iii) "personal data" as defined by the European Union General Data Protection Regulation ("**GDPR**") (EU 2016/679); (iv) any information which would qualify as "protected health information" under the Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act (collectively, "**HIPAA**"); and (v) any other piece of information that allows the identification of such natural person, or his or her family, or permits the collection or analysis of any data related to an identified person's health or sexual orientation. There have been no breaches, violations, outages or unauthorized uses of or accesses to same, except for those that have been remedied without material cost or liability or the duty to notify any other person or such, nor any incidents under internal review or investigations relating to the same except in each case, where such would not, either individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect. The Company and its Subsidiaries are presently in compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Personal Data and to the protection of such IT Systems and Personal Data from unauthorized use, access, misappropriation or modification except in each case, where such would not, either individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

(xx) Compliance with Data Privacy Laws. The Company and its Subsidiaries are, and at all prior times were, in compliance with all applicable state and federal data privacy and security laws and regulations, including without limitation HIPAA, and the Company and its Subsidiaries have taken commercially reasonable actions to prepare to comply with, and since May 25, 2018, have been and currently are in compliance with, the GDPR (EU 2016/679) (collectively, the “**Privacy Laws**”) except in each case, where such would not, either individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect. To ensure compliance with the Privacy Laws, the Company and its Subsidiaries have in place, comply with, and take appropriate steps reasonably designed to ensure compliance in all material respects with their policies and procedures relating to data privacy and security and the collection, storage, use, disclosure, handling, and analysis of Personal Data (the “**Policies**”). The Company and its Subsidiaries have at all times made all disclosures to users or customers required by applicable laws and regulatory rules or requirements, and none of such disclosures made or contained in any Policy have, to the knowledge of the Company, been inaccurate or in violation of any applicable laws and regulatory rules or requirements in any material respect. The Company further certifies that neither it nor any Subsidiary: (i) has received notice of any actual or potential liability under or relating to, or actual or potential violation of, any of the Privacy Laws, and has no knowledge of any event or condition that would reasonably be expected to result in any such notice; (ii) is currently conducting or paying for, in whole or in part, any investigation, remediation, or other corrective action pursuant to any Privacy Law; or (iii) is a party to any order, decree, or agreement that imposes any obligation or liability under any Privacy Law.

(yy) Disclosure. The Company confirms that neither it nor any other Person acting on its behalf has provided any of the Buyers or their agents or counsel with any information that constitutes or could reasonably be expected to constitute material, non-public information concerning the Company or any of its Subsidiaries, other than the existence of the transactions contemplated by this Agreement and the other Transaction Documents. The Company understands and confirms that each of the Buyers will rely on the foregoing representations in effecting transactions in securities of the Company. All disclosure provided to the Buyers regarding the Company and its Subsidiaries, their businesses and the transactions contemplated hereby, including the schedules to this Agreement, furnished by or on behalf of the Company or any of its Subsidiaries is true and correct and does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading. All of the written information furnished after the date hereof by or on behalf of the Company or any of its Subsidiaries to each Buyer pursuant to or in connection with this Agreement and the other Transaction Documents, taken as a whole, will be true and correct in all material respects as of the date on which such information is so provided and will not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading. Each press release issued by the Company or any of its Subsidiaries during the twelve (12) months preceding the date of this Agreement did not at the time of release 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 the light of the circumstances under which they are made, not misleading. No event or circumstance has occurred or information exists with respect to the Company or any of its Subsidiaries or its or their business, properties, liabilities, prospects, operations (including results thereof) or conditions (financial or otherwise), which, under applicable law, rule or regulation, requires public disclosure at or before the date hereof or announcement by the Company but which has not been so publicly disclosed. All financial projections and forecasts that have been prepared by or on behalf of the Company or any of its Subsidiaries and made available to you have been prepared in good faith based upon reasonable assumptions and represented, at the time each such financial projection or forecast was delivered to each Buyer, the Company’s best estimate of future financial performance (it being recognized that such financial projections or forecasts are not to be viewed as facts and that the actual results during the period or periods covered by any such financial projections or forecasts may differ from the projected or forecasted results). The Company acknowledges and agrees that no Buyer makes or has made any representations or warranties with respect to the transactions contemplated hereby other than those specifically set forth in Section 2.

4. COVENANTS.

(a) Best Efforts. Each Buyer shall use its best efforts to timely satisfy each of the covenants hereunder and conditions to be satisfied by it as provided in Section 6 of this Agreement. The Company shall use its best efforts to timely satisfy each of the covenants hereunder and conditions to be satisfied by it as provided in Section 7 of this Agreement.

(b) Form D and Blue Sky. The Company shall file a Form D with respect to the Securities as required under Regulation D and to provide a copy thereof to each Buyer promptly after such filing. The Company shall, on or before the Closing Date, 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 Buyers at the Closing pursuant to this Agreement under applicable securities or “Blue Sky” laws of the states of the United States (or to obtain an exemption from such qualification), and shall provide evidence of any such action so taken to the Buyers on or prior to the Closing Date. Without limiting any other obligation of the Company under this Agreement, the Company shall timely make all filings and reports relating to the offer and sale of the Securities required under all applicable securities laws (including, without limitation, all applicable federal securities laws and all applicable “Blue Sky” laws), and the Company shall comply with all applicable foreign, federal, state and local laws, statutes, rules, regulations and the like relating to the offering and sale of the Securities to the Buyers.

(c) Reporting Status. Until the date on which the Buyers shall have sold all of the Registrable Securities (the “**Reporting Period**”), the Company shall timely file all reports required to be filed with the SEC pursuant to the 1934 Act, and the Company shall not terminate its status as an issuer required to file reports under the 1934 Act even if the 1934 Act or the rules and regulations thereunder would no longer require or otherwise permit such termination. [From the time Form S-3 is available to the Company for the registration of the Registrable Securities, the Company shall take all actions necessary to maintain its eligibility to register the Registrable Securities for resale by the Buyers on Form S-3.]

(d) Use of Proceeds. The Company will use the proceeds from the sale of the Securities for general corporate purposes, but not, directly or indirectly, for (i) except as set forth on Schedule 4(d), the satisfaction of any indebtedness of the Company or any of its Subsidiaries, (ii) the redemption or repurchase of any securities of the Company or any of its Subsidiaries, or (iii) the settlement of any outstanding litigation.

(e) Financial Information. The Company agrees to send the following to each Investor (as defined in the Registration Rights Agreement) during the Reporting Period (i) unless the following are filed with the SEC through EDGAR and are available to the public through the EDGAR system, within one (1) Business Day after the filing thereof with the SEC, a copy of its Annual Reports on Form 10-K and Quarterly Reports on Form 10-Q, any interim reports or any consolidated balance sheets, income statements, stockholders’ equity statements and/or cash flow statements for any period other than annual, any Current Reports on Form 8-K and any registration statements (other than on Form S-8) or amendments filed pursuant to the 1933 Act, (ii) unless the following are either filed with the SEC through EDGAR or are otherwise widely disseminated via a recognized news release service (such as PR Newswire), on the same day as the release thereof, e-mail copies of all press releases issued by the Company or any of its Subsidiaries and (iii) unless the following are filed with the SEC through EDGAR, copies of any notices and other information made available or given to the stockholders of the Company generally, contemporaneously with the making available or giving thereof to the stockholders.

(f) Listing. The Company shall promptly secure the listing or designation for quotation (as the case may be) of all of the Registrable Securities upon each national securities exchange and automated quotation system, if any, upon which the Common Stock is then listed or designated for quotation (as the case may be) (subject to official notice of issuance) and shall maintain such listing or designation for quotation (as the case may be) of all Registrable Securities from time to time issuable under the terms of the Transaction Documents on such national securities exchange or automated quotation system. The Company shall maintain the Common Stock’s listing or authorization for quotation (as the case may be) on The New York Stock Exchange, the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market or the Nasdaq Global Select Market (each, an “**Eligible Market**”). Neither the Company nor any of its Subsidiaries shall take any action which could be reasonably expected to result in the delisting or suspension of the Common Stock on an Eligible Market. The Company shall pay all fees and expenses in connection with satisfying its obligations under this Section 4(f).

(g) Fees. The Company shall reimburse Kelley Drye & Warren LLP, documentation special counsel to Canaccord Genuity LLC, a non-accountable amount of \$75,000, for all costs and expenses incurred by it or its affiliates in connection with the structuring, documentation, negotiation and closing of the transactions contemplated by the Transaction Documents (the “**Transaction Expenses**”), less \$35,000 previously paid by the Company to Kelley Drye & Warren LLP. The Company shall be responsible for the payment of any placement agents’ fees, financial advisory fees, transfer agent fees, DTC (as defined below) fees or broker’s commissions (other than for Persons engaged by any Buyer) relating to or arising out of the transactions contemplated hereby (including, without limitation, any fees or commissions payable to the Placement Agents, who are the Company’s sole placement agents in connection with the transactions contemplated by this Agreement). The Company shall pay, and hold each Buyer harmless against, any liability, loss or expense (including, without limitation, reasonable attorneys’ fees and out-of-pocket expenses) arising in connection with any claim relating to any such payment. Except as otherwise set forth in the Transaction Documents, each party to this Agreement shall bear its own expenses in connection with the sale of the Securities to the Buyers.

(h) Pledge of Securities. Notwithstanding anything to the contrary contained in this Agreement, the Company acknowledges and agrees that the Securities may be pledged by an Investor in connection with a bona fide margin agreement or other loan or financing arrangement that is secured by the Securities. The pledge of Securities shall not be deemed to be a transfer, sale or assignment of the Securities hereunder, and no Investor effecting a pledge of Securities shall be required to provide the Company with any notice thereof or otherwise make any delivery to the Company pursuant to this Agreement or any other Transaction Document, including, without limitation, Section 2(g) hereof; provided that an Investor and its pledgee shall be required to comply with the provisions of Section 2(g) hereof in order to effect a sale, transfer or assignment of Securities to such pledgee. The Company hereby agrees to execute and deliver such documentation as a pledgee of the Securities may reasonably request in connection with a pledge of the Securities to such pledgee by a Buyer.

(i) Disclosure of Transactions and Other Material Information.

(i) Disclosure of Transaction. The Company shall, on or before 9:30 a.m., New York time, on the first (1st) Business Day after the date of this Agreement, issue a press release (the “**Press Release**”) reasonably acceptable to the Buyers disclosing all the material terms of the transactions contemplated by the Transaction Documents. On or before 9:30 a.m., New York time, on the first (1st) Business Day after the date of this Agreement, the Company shall file a Current Report on Form 8-K describing all the material terms of the transactions contemplated by the Transaction Documents in the form required by the 1934 Act and attaching all the material Transaction Documents (including, without limitation, this Agreement (and all schedules to this Agreement), the form of the Warrants, the form of Voting Agreement and the form of the Registration Rights Agreement) (including all attachments, the “**8-K Filing**”). From and after the filing of the Press Release, the Company shall have disclosed all material, non-public information (if any) provided to any of the Buyers by the Company or any of its Subsidiaries or any of their respective officers, directors, employees or agents in connection with the transactions contemplated by the Transaction Documents. In addition, effective upon the filing of the Press Release, the Company acknowledges and agrees that any and all confidentiality or similar obligations under any agreement, whether written or oral, between the Company, any of its Subsidiaries or any of their respective officers, directors, affiliates, employees or agents, on the one hand, and any of the Buyers or any of their affiliates, on the other hand, shall terminate.

(ii) Limitations on Disclosure. The Company shall not, and the Company shall cause each of its Subsidiaries and each of its and their respective officers, directors, employees and agents not to, provide any Buyer with any material, non-public information regarding the Company or any of its Subsidiaries from and after the date hereof without the express prior written consent of such Buyer (which may be granted or withheld in such Buyer's sole discretion). In the event of a breach of any of the foregoing covenants, or any of the covenants or agreements contained in any other Transaction Document, by the Company, any of its Subsidiaries, or any of its or their respective officers, directors, employees and agents (as determined in the reasonable good faith judgment of such Buyer), in addition to any other remedy provided herein or in the Transaction Documents, such Buyer shall have the right to make a public disclosure, in the form of a press release, public advertisement or otherwise, of such breach or such material, non-public information, as applicable, without the prior approval by the Company, any of its Subsidiaries, or any of its or their respective officers, directors, employees or agents. No Buyer shall have any liability to the Company, any of its Subsidiaries, or any of its or their respective officers, directors, employees, affiliates, stockholders or agents, for any such disclosure. To the extent that the Company delivers any material, non-public information to a Buyer without such Buyer's consent, the Company hereby covenants and agrees that such Buyer shall not have any duty of confidentiality with respect to, or a duty not to trade on the basis of, such material, non-public information. Subject to the foregoing, neither the Company, its Subsidiaries nor any Buyer shall issue any press releases or any other public statements with respect to the transactions contemplated hereby; provided, however, the Company shall be entitled, without the prior approval of any Buyer, to make the Press Release and any press release or other public disclosure with respect to such transactions (i) in substantial conformity with the 8-K Filing and contemporaneously therewith and (ii) as is required by applicable law and regulations (provided that in the case of clause (i) each Buyer shall be consulted by the Company in connection with any such press release or other public disclosure prior to its release). Without the prior written consent of the applicable Buyer (which may be granted or withheld in such Buyer's sole discretion), the Company shall not (and shall cause each of its Subsidiaries and affiliates to not) disclose the name of such Buyer in any filing, announcement, release or otherwise. Notwithstanding anything contained in this Agreement to the contrary and without implication that the contrary would otherwise be true, the Company expressly acknowledges and agrees that no Buyer shall have (unless expressly agreed to by a particular Buyer after the date hereof in a written definitive and binding agreement executed by the Company and such particular Buyer (it being understood and agreed that no Buyer may bind any other Buyer with respect thereto)), any duty of confidentiality with respect to, or a duty not to trade on the basis of, any material, non-public information regarding the Company or any of its Subsidiaries.

(j) Additional Registration Statements. During the Restricted Period (as defined below) and at any time thereafter while any Registration Statement is not effective or the prospectus contained therein is not available for use or any Current Public Information Failure (as defined in the Registration Rights Agreement) exists, the Company shall not file a registration statement under the 1933 Act relating to securities that are not the Registrable Securities (other than a registration statement on Form S-8 or Form S-4 or such supplements or amendments to registration statements that are outstanding and have been declared effective by the SEC as of the date hereof (solely to the extent necessary to keep such registration statements effective and available and not with respect to any Subsequent Placement)). "**Applicable Date**" means the later of (x) the Stockholder Approval Date (as defined below) and (y) the earlier of (A) the first date on which a Registration Statement (as defined in the Registration Rights Agreement) registering the resale by the Buyers of all of the Registrable Securities is declared effective by the SEC (and the prospectus contained therein is available for use on such date) or (B) the first date on which all of the Registrable Securities are eligible to be resold by the Buyers pursuant to Rule 144 (or, if a Current Public Information Failure has occurred and is continuing, such later date after which the Company has cured such Current Public Information Failure).

(k) Additional Issuance of Securities. The Company agrees that for the period commencing on the date hereof and ending on the date immediately following the 30th calendar day after the Applicable Date (provided that such period shall be extended by the number of calendar days during such period and any extension thereof contemplated by this proviso on which any Registration Statement is not effective or any prospectus contained therein is not available for use or any Current Public Information Failure exists) (the “**Restricted Period**”), neither the Company nor any of its Subsidiaries shall directly or indirectly issue, offer, sell, grant any option or right to purchase, or otherwise dispose of (or announce any issuance, offer, sale, grant of any option or right to purchase or other disposition of) any equity security or any equity-linked or related security (including, without limitation, any “equity security” (as that term is defined under Rule 405 promulgated under the 1933 Act), any Common Stock Equivalents (as defined below), any debt, any preferred stock or any purchase rights) (any such issuance, offer, sale, grant, disposition or announcement (whether occurring during the Restricted Period or at any time thereafter) is referred to as a “**Subsequent Placement**”). Notwithstanding the foregoing, this Section 4(k) shall not apply in respect of the issuance of (i) shares of Common Stock or standard options to purchase Common Stock to directors, officers, consultant, advisor or employees of the Company in their capacity as such pursuant to an Approved Stock Plan (as defined below), provided that the exercise price of any such options is not lowered, none of such options are amended to increase the number of shares issuable thereunder and none of the terms or conditions of any such options are otherwise materially changed in any manner that adversely affects any of the Buyers; (ii) shares of Common Stock issued upon the conversion or exercise of Common Stock Equivalents (other than standard options to purchase Common Stock issued pursuant to an Approved Stock Plan that are covered by clause (i) above) issued prior to the date hereof, provided that the conversion, exercise or other method of issuance (as the case may be) of any such Common Stock Equivalent is made solely pursuant to the conversion, exercise or other method of issuance (as the case may be) provisions of such Common Stock Equivalent that were in effect on the date immediately prior to the date of this Agreement, the conversion, exercise or issuance price of any such Common Stock Equivalents (other than standard options to purchase Common Stock issued pursuant to an Approved Stock Plan that are covered by clause (i) above) is not lowered, none of such Common Stock Equivalents (other than standard options to purchase Common Stock issued pursuant to an Approved Stock Plan that are covered by clause (i) above) are amended to increase the number of shares issuable thereunder and none of the terms or conditions of any such Common Stock Equivalents (other than standard options to purchase Common Stock issued pursuant to an Approved Stock Plan that are covered by clause (i) above) are otherwise materially changed in any manner that adversely affects any of the Buyers; (iii) the Warrant Shares, (iv) if the VWAP of the Common Stock exceeds 150% of the Exercise Price (as defined in the Warrants) for ten (10) consecutive Trading Days at any time after the Closing Date, shares of Common Stock issued or issuable pursuant to the Permitted ATM (each, an “**Excluded ATM Issuance**”) and (v) any shares of Common Stock issued or issuable in connection with any bona fide strategic or commercial alliances, sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements, acquisitions, mergers, licensing arrangements, and strategic partnerships, provided, that (A) the primary purpose of such issuance is not to raise capital as reasonably determined, (B) such issuance is not to a Person whose primary business is investing in securities and (C) the purchaser or acquirer or recipient of the securities in such issuance solely consists of either (I) the actual participants in such strategic or commercial alliance, strategic or commercial licensing arrangement or strategic or commercial partnership, (II) the actual owners of such assets or securities acquired in such acquisition or merger or (III) the stockholders, partners, employees, consultants, officers, directors or members of the foregoing Persons, in each case, which is, itself or through its subsidiaries, an operating company or an owner of an asset, in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, and (IV) the number or amount of securities issued to such Persons by the Company shall not be disproportionate to each such Person’s actual participation in (or fair market value of the contribution to) such strategic or commercial alliance or strategic or commercial partnership or ownership of such assets or securities to be acquired by the Company, as applicable (each of the foregoing in clauses (i) through (iv), collectively the “**Excluded Securities**”). “**Approved Stock Plan**” means any employee benefit plan which has been approved by the board of directors of the Company prior to or subsequent to the date hereof pursuant to which shares of Common Stock and standard options to purchase Common Stock may be issued to any employee, officer, consultant, advisor or director for services provided to the Company in their capacity as such.

(l) Reservation of Shares. So long as any of the Warrants remain outstanding, the Company shall take all action necessary to at all times have authorized, and reserved for the purpose of issuance, no less than 100% of the maximum number of Warrant Shares issuable upon exercise of all the Warrants then outstanding (without regard to any limitations on the exercise of the Warrants set forth therein) (collectively, the “**Required Reserve Amount**”); provided that at no time shall the number of shares of Common Stock reserved pursuant to this Section 4(l) be reduced other than proportionally in connection with any exercise and/or redemption, as applicable of Warrants. If at any time the number of shares of Common Stock authorized and reserved for issuance is not sufficient to meet the Required Reserve Amount, the Company will promptly take all corporate action necessary to authorize and reserve a sufficient number of shares, including, without limitation, calling a special meeting of stockholders to authorize additional shares to meet the Company’s obligations pursuant to the Transaction Documents, in the case of an insufficient number of authorized shares, obtain stockholder approval of an increase in such authorized number of shares, and voting the management shares of the Company in favor of an increase in the authorized shares of the Company to ensure that the number of authorized shares is sufficient to meet the Required Reserve Amount.

(m) Conduct of Business. The business of the Company and its Subsidiaries shall not be conducted in violation of any law, ordinance or regulation of any Governmental Entity, except where such violations would not reasonably be expected to result, either individually or in the aggregate, in a Material Adverse Effect.

(n) Variable Securities. At any time during the Restricted Period, the Company and each Subsidiary shall be prohibited from effecting or entering into an agreement to effect any Subsequent Placement involving a Variable Rate Transaction (other than the Permitted ATM (as defined below)); provided, that the Company shall not sell any shares of Common Stock pursuant to the Permitted ATM during the period commencing on the date hereof and ending on March 18, 2025 (other than any shares of Common Stock pursuant to any Excluded ATM Issuance). “**Variable Rate Transaction**” means a transaction in which the Company or any Subsidiary (i) issues or sells any Common Stock Equivalents either (A) at a conversion, exercise or exchange rate or other price that is based upon and/or varies with the trading prices of or quotations for the shares of Common Stock at any time after the initial issuance of such Common Stock Equivalents, or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such Common Stock Equivalents or 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, other than pursuant to a customary “weighted average” or “full-ratchet” anti-dilution provision or (ii) enters into any agreement (including, without limitation, an equity line of credit or an “at-the-market” offering) whereby the Company or any Subsidiary may sell securities at a future determined price (other than standard and customary “preemptive” or “participation” rights). Each Buyer shall be entitled to obtain injunctive relief against the Company and its Subsidiaries to preclude any such issuance, which remedy shall be in addition to any right to collect damages. “**Permitted ATM**” means any at-the-market offering with a bona-fide registered broker dealer.

(o) [Intentionally Omitted]

(p) Dilutive Issuances. For so long as any Warrants remain outstanding, the Company shall not, in any manner, enter into or affect any Dilutive Issuance (as defined in the Warrants) if the effect of such Dilutive Issuance is to cause the Company to be required to issue upon exercise of any Warrant any shares of Common Stock in excess of that number of shares of Common Stock which the Company may issue upon exercise of the Warrants without breaching the Company’s obligations under the rules or regulations of the Principal Market.

(q) Passive Foreign Investment Company. The Company shall conduct its business, and shall cause its Subsidiaries to conduct their respective businesses, in such a manner as will ensure that the Company will not be deemed to constitute a passive foreign investment company within the meaning of Section 1297 of the Code.

(r) Restriction on Redemption and Cash Dividends. So long as any Warrants are outstanding, the Company shall not, directly or indirectly, redeem, or declare or pay any cash dividend or distribution on, any securities of the Company without the prior express written consent of the Buyers.

(s) Corporate Existence. So long as any Buyer beneficially owns any Warrants, the Company shall not be party to any Fundamental Transaction (as defined in the Warrants) unless the Company is in compliance with the applicable provisions governing Fundamental Transactions set forth in the Warrants.

(t) [Intentionally Omitted]

(u) Exercise Procedures. The form of Exercise Notice (as defined in the Warrants) included in the Warrants sets forth the totality of the procedures required of the Buyers in order to exercise the Warrants. No legal opinion or other information or instructions shall be required of the Buyers to exercise their Warrants. The Company shall honor exercises of the Warrants and shall deliver the Warrant Shares in accordance with the terms, conditions and time periods set forth in the Warrants. Without limiting the preceding sentences, no ink-original Exercise Notice shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Exercise Notice form be required in order to exercise the Warrants.

(v) Regulation M. The Company will not take any action prohibited by Regulation M under the 1934 Act, in connection with the distribution of the Securities contemplated hereby.

(w) General Solicitation. None of the Company, any of its affiliates (as defined in Rule 501(b) under the 1933 Act) or any person acting on behalf of the Company or such affiliate will solicit any offer to buy or offer or sell the Securities by means of any form of general solicitation or general advertising within the meaning of Regulation D, including: (i) any advertisement, article, notice or other communication published in any newspaper, magazine or similar medium or broadcast over television or radio; and (ii) any seminar or meeting whose attendees have been invited by any general solicitation or general advertising.

(x) Integration. None of the Company, any of its affiliates (as defined in Rule 501(b) under the 1933 Act), or any person acting on behalf of the Company or such affiliate will sell, offer for sale, or solicit offers to buy or otherwise negotiate in respect of any security (as defined in the 1933 Act) which will be integrated with the sale of the Securities in a manner which would require the registration of the Securities under the 1933 Act or require stockholder approval under the rules and regulations of the Principal Market and the Company will take all action that is appropriate or necessary to assure that its offerings of other securities will not be integrated for purposes of the 1933 Act or the rules and regulations of the Principal Market, with the issuance of Securities contemplated hereby.

(y) Notice of Disqualification Events. The Company will notify the Buyers in writing, prior to the Closing Date of (i) any Disqualification Event relating to any Issuer Covered Person and (ii) any event that would, with the passage of time, become a Disqualification Event relating to any Issuer Covered Person.

(z) Stockholder Approval. The Company shall either (x) if the Company shall have obtained the prior written consent of the requisite stockholders (the “**Stockholder Consent**”) to obtain the Stockholder Approval (as defined below), inform the stockholders of the Company of the receipt of the Stockholder Consent by preparing and filing with the SEC, as promptly as practicable after the date hereof, but prior to the forty-fifth (45th) calendar day after the Closing Date (or, if such filing is delayed by a court or regulatory agency, in no event later than the 90th calendar day after the Closing Date), an information statement with respect thereto or (y) provide each stockholder entitled to vote at a special meeting of stockholders of the Company (the “**Stockholder Meeting**”), which shall be promptly called and held not later than the 90th calendar day after the Closing Date (the “**Stockholder Meeting Deadline**”), a proxy statement, in each case, in a form reasonably acceptable to the Buyers and Kelley Drye & Warren LLP, at the expense of the Company, with the Company obligated to reimburse the expenses of Kelley Drye & Warren LLP incurred in connection therewith in an amount not exceed \$5,000. The proxy statement, if any, shall solicit each of the Company’s stockholder’s affirmative vote at the Stockholder Meeting for approval of resolutions (“**Stockholder Resolutions**”) providing for the approval of the issuance of all of the Securities in compliance with the rules and regulations of the Principal Market (without regard to any limitations on exercise set forth in the Warrants) (such affirmative approval being referred to herein as the “**Stockholder Approval**”, and the date such Stockholder Approval is obtained, the “**Stockholder Approval Date**”), and the Company shall use its reasonable best efforts to solicit its stockholders’ approval of such resolutions and to cause the Board of Directors of the Company to recommend to the stockholders that they approve such resolutions. The Company shall be obligated to seek to obtain the Stockholder Approval by the Stockholder Meeting Deadline. If, despite the Company’s reasonable best efforts the Stockholder Approval is not obtained on or prior to the Stockholder Meeting Deadline, the Company shall cause an additional Stockholder Meeting to be held on or prior to the 180th calendar day after the Closing Date. If, despite the Company’s reasonable best efforts the Stockholder Approval is not obtained after such subsequent stockholder meetings, the Company shall cause an additional Stockholder Meeting to be held semi-annually thereafter until such Stockholder Approval is obtained.

(aa) Voting Agreements. The Company shall not amend, modify, waive or terminate any provision of any of the Voting Agreements except to extend the term of any lock-up period therein and shall enforce the provisions of each Voting Agreement in accordance with its terms. If any party to a Voting Agreement breaches any provision of a Voting Agreement, the Company shall promptly use its best efforts to obtain specific performance of the terms of such Voting Agreement. Notwithstanding the foregoing, no Buyer shall be a third party beneficiary of any Voting Agreement.

(bb) Closing Documents. On or prior to fourteen (14) calendar days after the Closing Date, the Company agrees to deliver, or cause to be delivered, to each Buyer, the Placement Agents and Kelley Drye & Warren LLP a complete closing set of the executed Transaction Documents, Securities and any other document required to be delivered to any party pursuant to Section 7 hereof or otherwise.

5. REGISTER; TRANSFER AGENT INSTRUCTIONS; LEGEND.

(a) Register. The Company shall maintain at its principal executive offices (or such other office or agency of the Company as it may designate by notice to each holder of Warrants), a register for the Warrants in which the Company shall record the name and address of the Person in whose name the Warrants have been issued (including the name and address of each transferee) and the number of Warrant Shares issuable upon exercise of the Warrants held by such Person. The Company shall keep the register open and available at all times during business hours for inspection of any Buyer or its legal representatives.

(b) Transfer Agent Instructions. The Company shall issue irrevocable instructions to its transfer agent and any subsequent transfer agent (as applicable, the “**Transfer Agent**”) in a form acceptable to each of the Buyers (the “**Irrevocable Transfer Agent Instructions**”) to issue certificates or credit shares to the applicable balance accounts at The Depository Trust Company (“**DTC**”), registered in the name of each Buyer or its respective nominee(s), for the Common Shares and the Warrant Shares in such amounts as specified from time to time by each Buyer to the Company upon the exercise of the Warrants (as the case may be). The Company represents and warrants that no instruction other than the Irrevocable Transfer Agent Instructions referred to in this Section 5(b), and stop transfer instructions to give effect to Section 2(g) hereof, will be given by the Company to its transfer agent with respect to the Securities, and that the Securities shall otherwise be freely transferable on the books and records of the Company, as applicable, to the extent provided in this Agreement and the other Transaction Documents. If a Buyer effects a sale, assignment or transfer of the Securities in accordance with Section 2(g), the Company shall permit the transfer and shall promptly instruct its transfer agent to issue one or more certificates or credit shares to the applicable balance accounts at DTC in such name and in such denominations as specified by such Buyer to effect such sale, transfer or assignment. In the event that such sale, assignment or transfer involves Common Shares or Warrant Shares sold, assigned or transferred pursuant to an effective registration statement or in compliance with Rule 144, the transfer agent shall issue such shares to such Buyer, assignee or transferee (as the case may be) without any restrictive legend in accordance with Section 5(d) below. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to a Buyer. Accordingly, the Company acknowledges that the remedy at law for a breach of its obligations under this Section 5(b) will be inadequate and agrees, in the event of a breach or threatened breach by the Company of the provisions of this Section 5(b), that a Buyer shall be entitled, in addition to all other available remedies, to an order and/or injunction restraining any breach and requiring immediate issuance and transfer, without the necessity of showing economic loss and without any bond or other security being required. The Company shall cause its counsel to issue the legal opinion referred to in the Irrevocable Transfer Agent Instructions to the Company’s transfer agent on each Effective Date (as defined in the Registration Rights Agreement). Any fees (with respect to the transfer agent, counsel to the Company or otherwise) associated with the issuance of such opinion or the removal of any legends on any of the Securities shall be borne by the Company.

(c) Legends. Each Buyer understands that the Securities have been issued (or will be issued in the case of the Warrant Shares) pursuant to an exemption from registration or qualification under the 1933 Act and applicable state securities laws, and except as set forth below, the Securities shall bear any legend as required by the “blue sky” laws of any state and a restrictive legend in substantially the following form (and a stop-transfer order may be placed against transfer of such stock certificates):

[NEITHER THE ISSUANCE AND SALE OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE NOR THE SECURITIES INTO WHICH THESE SECURITIES ARE EXERCISABLE HAVE BEEN][THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN] REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR (B) AN OPINION OF COUNSEL TO THE HOLDER (IF REQUESTED BY THE COMPANY), IN A FORM REASONABLY ACCEPTABLE TO THE COMPANY, THAT REGISTRATION IS NOT REQUIRED UNDER SAID ACT OR (II) UNLESS SOLD OR ELIGIBLE TO BE SOLD PURSUANT TO RULE 144 OR RULE 144A UNDER SAID ACT. NOTWITHSTANDING THE FOREGOING, THE SECURITIES MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN OR FINANCING ARRANGEMENT SECURED BY THE SECURITIES.

(d) Removal of Legends. Certificates evidencing Securities shall not be required to contain the legend set forth in Section 5(c) above or any other legend (i) while a registration statement (including a Registration Statement) covering the resale of such Securities is effective under the 1933 Act, (ii) following any sale of such Securities pursuant to Rule 144 (assuming the transferor is not an affiliate of the Company), (iii) if such Securities are eligible to be sold, assigned or transferred under Rule 144 (provided that a Buyer provides the Company with reasonable assurances that such Securities are eligible for sale, assignment or transfer under Rule 144 which shall not include an opinion of Buyer’s counsel), (iv) in connection with a sale, assignment or other transfer (other than under Rule 144), provided that such Buyer provides the Company with an opinion of counsel to such Buyer, in a generally acceptable form, to the effect that such sale, assignment or transfer of the Securities may be made without registration under the applicable requirements of the 1933 Act or (v) if such legend is not required under applicable requirements of the 1933 Act (including, without limitation, controlling judicial interpretations and pronouncements issued by the SEC). If a legend is not required pursuant to the foregoing, the Company shall no later than one (1) Trading Day (as defined in the Warrants) (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 date such Buyer delivers such legended certificate representing such Securities to the Company) following the delivery by a Buyer to the Company or the transfer agent (with notice to the Company) of a legended certificate representing such Securities (endorsed or with stock powers attached, signatures guaranteed, and otherwise in form necessary to affect the reissuance and/or transfer, if applicable), together with any other deliveries from such Buyer as may be required above in this Section 5(d), as directed by such Buyer, either: (A) provided that the Company’s transfer agent is participating in the DTC Fast Automated Securities Transfer Program (“FAST”) and such Securities are Common Shares or Warrant Shares, credit the aggregate number of shares of Common Stock to which such Buyer shall be entitled to such Buyer’s or its designee’s balance account with DTC through its Deposit/Withdrawal at Custodian system or (B) if the Company’s transfer agent is not participating in FAST, issue and deliver (via reputable overnight courier) to such Buyer, a certificate representing such Securities that is free from all restrictive and other legends, registered in the name of such Buyer or its designee (the date by which such credit is so required to be made to the balance account of such Buyer’s or such Buyer’s designee with DTC or such certificate is required to be delivered to such Buyer pursuant to the foregoing is referred to herein as the “**Required Delivery Date**”, and the date such shares of Common Stock are actually delivered without restrictive legend to such Buyer or such Buyer’s designee with DTC, as applicable, the “**Share Delivery Date**”). The Company shall be responsible for any transfer agent fees or DTC fees with respect to any issuance of Securities or the removal of any legends with respect to any Securities in accordance herewith.

(e) Failure to Timely Deliver; Buy-In. If the Company fails to fail, for any reason or for no reason, to issue and deliver (or cause to be delivered) to a Buyer (or its designee) by the Required Delivery Date, either (I) if the Transfer Agent is not participating in FAST, a certificate for the number of Common Shares or Warrant Shares (as the case may be) to which such Buyer is entitled and register such Common Shares or Warrant Shares (as the case may be) on the Company's share register or, if the Transfer Agent is participating in FAST, to credit the balance account of such Buyer or such Buyer's designee with DTC for such number of Common Shares or Warrant Shares (as the case may be) submitted for legend removal by such Buyer pursuant to Section 5(d) above or (II) if the Registration Statement covering the resale of the Common Shares or Warrant Shares (as the case may be) submitted for legend removal by such Buyer pursuant to Section 5(d) above (the "**Unavailable Shares**") is not available for the resale of such Unavailable Shares and the Company fails to promptly, but in no event later than as required pursuant to the Registration Rights Agreement (x) so notify such Buyer and (y) deliver the Common Shares or Warrant Shares, as applicable, electronically without any restrictive legend by crediting such aggregate number of Common Shares or Warrant Shares (as the case may be) submitted for legend removal by such Buyer pursuant to Section 5(d) above to such Buyer's or its designee's balance account with DTC through its Deposit/Withdrawal At Custodian system (the event described in the immediately foregoing clause (II) is hereinafter referred to as a "**Notice Failure**" and together with the event described in clause (I) above, a "**Delivery Failure**"), then, in addition to all other remedies available to such Buyer, the Company shall pay in cash to such Buyer on each day after the Share Delivery Date and during such Delivery Failure an amount equal to 1% of the product of (A) the sum of the number of shares of Common Stock not issued to such Buyer on or prior to the Required Delivery Date and to which such Buyer is entitled, and (B) any trading price of the Common Stock selected by such Buyer in writing as in effect at any time during the period beginning on the date of the delivery by such Buyer to the Company of the applicable Common Shares or Warrant Shares (as the case may be) and ending on the applicable Share Delivery Date. In addition to the foregoing, if on or prior to the Required Delivery Date either (I) if the Transfer Agent is not participating in FAST, the Company shall fail to issue and deliver a certificate to a Buyer and register such shares of Common Stock on the Company's share register or, if the Transfer Agent is participating in FAST, credit the balance account of such Buyer or such Buyer's designee with DTC for the number of shares of Common Stock to which such Buyer submitted for legend removal by such Buyer pursuant to Section 5(d) above (ii) below or (II) a Notice Failure occurs, and if on or after such Trading Day such Buyer purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by such Buyer of shares of Common Stock submitted for legend removal by such Buyer pursuant to Section 5(d) above that such Buyer anticipated receiving from the Company (a "**Buy-In**"), then the Company shall, within one (1) Trading Day after such Buyer's request and in such Buyer's discretion, either (i) pay cash to such Buyer in an amount equal to such Buyer's total purchase price (including brokerage commissions and other out-of-pocket expenses, if any, for the shares of Common Stock so purchased) (the "**Buy-In Price**"), at which point the Company's obligation to so deliver such certificate or credit such Buyer's balance account shall terminate and such shares shall be cancelled, or (ii) promptly honor its obligation to so deliver to such Buyer a certificate or certificates or credit the balance account of such Buyer or such Buyer's designee with DTC representing such number of shares of Common Stock that would have been so delivered if the Company timely complied with its obligations hereunder and pay cash to such Buyer in an amount equal to the excess (if any) of the Buy-In Price over the product of (A) such number of shares of Common Shares or Warrant Shares (as the case may be) that the Company was required to deliver to such Buyer by the Required Delivery Date multiplied by (B) the lowest Closing Sale Price (as defined in the Warrants) of the Common Stock on any Trading Day during the period commencing on the date of the delivery by such Buyer to the Company of the applicable Common Shares or Warrant Shares (as the case may be) and ending on the date of such delivery and payment under this clause (ii). Nothing shall limit such Buyer's right to pursue any other remedies available to it hereunder, at law or in equity, including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver certificates representing shares of Common Stock (or to electronically deliver such shares of Common Stock) as required pursuant to the terms hereof. Notwithstanding anything herein to the contrary, with respect to any given Notice Failure and/or Delivery Failure, this Section 5(e) shall not apply to the applicable Buyer the extent the Company has already paid such amounts in full to such Buyer with respect to such Notice Failure and/or Delivery Failure, as applicable, pursuant to the analogous sections of the Note or Warrant, as applicable, held by such Buyer.

(f) FAST Compliance. While any Warrants remain outstanding, the Company shall maintain a transfer agent that participates in FAST.

6. CONDITIONS TO THE COMPANY'S OBLIGATION TO SELL.

(a) The obligation of the Company hereunder to issue and sell the Common Shares and the related Warrants to each Buyer at the Closing is subject to the satisfaction, at or before the Closing Date, of each of the following conditions, provided that these conditions are for the Company's sole benefit and may be waived by the Company at any time in its sole discretion by providing each Buyer with prior written notice thereof:

(i) Such Buyer shall have executed each of the other Transaction Documents to which it is a party and delivered the same to the Company.

(ii) Such Buyer and each other Buyer shall have delivered to the Company the Purchase Price (less, in the case of any Buyer, the amounts withheld pursuant to Section 4(g)) for the Common Shares and the related Warrants being purchased by such Buyer at the Closing by wire transfer of immediately available funds in accordance with the Flow of Funds Letter.

(iii) The representations and warranties of such Buyer shall be true and correct in all material respects as of the date when made and as of the Closing Date as though originally made at that time (except for representations and warranties that speak as of a specific date, which shall be true and correct as of such specific date), and such Buyer shall have performed, satisfied and complied in all material respects with the covenants, agreements and conditions required by this Agreement to be performed, satisfied or complied with by such Buyer at or prior to the Closing Date.

7. CONDITIONS TO EACH BUYER'S OBLIGATION TO PURCHASE.

(a) The obligation of each Buyer hereunder to purchase its Common Shares and its related Warrants at the Closing is subject to the satisfaction, at or before the Closing Date, of each of the following conditions, provided that these conditions are for each Buyer's sole benefit and may be waived by such Buyer at any time in its sole discretion by providing the Company with prior written notice thereof:

(i) The Company and each Subsidiary (as the case may be) shall have duly executed and delivered to such Buyer each of the Transaction Documents to which it is a party and the Company shall have duly executed and delivered to such Buyer (x) such aggregate number of Common Shares set forth on the signature page of such Buyer attached hereto, and (y) a Series A Warrant to initially acquire up to that aggregate number of Series A Warrant Shares as set forth on the signature page of such Buyer attached here and (z) a Series B Warrant to initially acquire up to such aggregate number of Series B Warrant Shares as set forth on the signature page of such Buyer attached hereto.

(ii) Such Buyer and the Placement Agents shall have received the opinion of Shumaker, Loop & Kendrick, LLP, the Company's counsel, dated as of the Closing Date, in the form acceptable to such Buyer.

(iii) The Company shall have delivered to such Buyer a copy of the Irrevocable Transfer Agent Instructions, in the form acceptable to such Buyer, which instructions shall have been delivered to and acknowledged in writing by the Company's transfer agent.

(iv) The Company shall have delivered to such Buyer a certificate evidencing the formation and good standing of the Company issued by the Secretary of State of Delaware as of a date within ten (10) days of the Closing Date.

(v) The Company shall have delivered to such Buyer a certificate evidencing the Company's qualification as a foreign corporation and good standing issued by the Secretary of State (or comparable office) of each jurisdiction in which the Company conducts business and is required to so qualify, as of a date within ten (10) days of the Closing Date.

(vi) The Company shall have delivered to such Buyer a certified copy of the Certificate of Incorporation as certified by the Delaware Secretary of State within ten (10) days of the Closing Date.

(vii) The Company shall have delivered to such Buyer a certificate, in the form acceptable to such Buyer, executed by the Secretary of the Company and dated as of the Closing Date, as to (i) the resolutions consistent with Section 3(b) as adopted by the Company's board of directors in a form reasonably acceptable to such Buyer, (ii) the Certificate of Incorporation of the Company and (iii) the Bylaws of the Company, each as in effect at the Closing.

(viii) Each and every representation and warranty of the Company shall be true and correct as of the date when made and as of the Closing Date as though originally made at that time (except for representations and warranties that speak as of a specific date, which shall be true and correct as of such specific date) and the Company shall have performed, satisfied and complied in all respects with the covenants, agreements and conditions required to be performed, satisfied or complied with by the Company at or prior to the Closing Date. Such Buyer shall have received a certificate, duly executed by the Chief Executive Officer of the Company, dated as of the Closing Date, to the foregoing effect and as to such other matters as may be reasonably requested by such Buyer in the form acceptable to such Buyer.

(ix) The Company shall have delivered to such Buyer a letter from the Company's transfer agent certifying the number of shares of Common Stock outstanding on the Closing Date immediately prior to the Closing.

(x) The Common Stock (A) shall be designated for quotation or listed (as applicable) on the Principal Market and (B) shall not have been suspended, as of the Closing Date, by the SEC or the Principal Market from trading on the Principal Market nor shall suspension by the SEC or the Principal Market have been threatened, as of the Closing Date, either (I) in writing by the SEC or the Principal Market or (II) by falling below the minimum maintenance requirements of the Principal Market.

(xi) The Company shall have obtained all governmental, regulatory or third party consents and approvals, if any, necessary for the sale of the Securities, including without limitation, those required by the Principal Market, if any.

(xii) No statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or endorsed by any court or Governmental Entity of competent jurisdiction that prohibits the consummation of any of the transactions contemplated by the Transaction Documents.

(xiii) Since the date of execution of this Agreement, no event or series of events shall have occurred that reasonably would have or result in a Material Adverse Effect.

(xiv) The Company shall have obtained approval of the Principal Market to list or designate for quotation (as the case may be) the Common Shares and the Warrant Shares.

(xv) The Company shall have duly executed and delivered to such Buyer the voting agreement in the form of **Exhibit C** hereof (the “**Voting Agreements**”), by and between the Company and the stockholders listed on Schedule 7(a)(xv) attached hereto (the “**Stockholders**”) and the Stockholders shall have duly executed and delivered to such Buyer the Voting Agreements.

(xvi) Such Buyer shall have received a letter on the letterhead of the Company, duly executed by the Chief Executive Officer of the Company, setting forth the wire amounts of each Buyer and the wire transfer instructions of the Company (the “**Flow of Funds Letter**”).

(xvii) The Company and its Subsidiaries shall have delivered to such Buyer such other documents, instruments or certificates relating to the transactions contemplated by this Agreement as such Buyer or its counsel may reasonably request.

8. TERMINATION.

In the event that the Closing shall not have occurred with respect to a Buyer within five (5) days of the date hereof, then such Buyer shall have the right to terminate its obligations under this Agreement with respect to itself at any time on or after the close of business on such date without liability of such Buyer to any other party; provided, however, (i) the right to terminate this Agreement under this Section 8 shall not be available to such Buyer if the failure of the transactions contemplated by this Agreement to have been consummated by such date is the result of such Buyer’s breach of this Agreement and (ii) the abandonment of the sale and purchase of the Common Shares and the Warrants shall be applicable only to such Buyer providing such written notice, provided further that no such termination shall affect any obligation of the Company under this Agreement to reimburse such Buyer for the expenses described in Section 4(g) above. Nothing contained in this Section 8 shall be deemed to release any party from any liability for any breach by such party of the terms and provisions of this Agreement or the other Transaction Documents or to impair the right of any party to compel specific performance by any other party of its obligations under this Agreement or the other Transaction Documents.

9. MISCELLANEOUS.

(a) Governing Law; Jurisdiction; Jury Trial. All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be governed by the internal laws of the State of New York, without giving effect to any provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York. 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 under any of the other Transaction Documents or with any transaction contemplated hereby or thereby, 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. 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 to such party at the address for such notices to it under this Agreement 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 manner permitted by law. Nothing contained herein shall be deemed to operate to preclude any Buyer from bringing suit or taking other legal action against the Company in any other jurisdiction to collect on the Company's obligations to such Buyer or to enforce a judgment or other court ruling in favor of such Buyer. **EACH PARTY 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 UNDER ANY OTHER TRANSACTION DOCUMENT OR IN CONNECTION WITH OR ARISING OUT OF THIS AGREEMENT, ANY OTHER TRANSACTION DOCUMENT OR ANY TRANSACTION CONTEMPLATED HEREBY OR THEREBY.**

(b) Counterparts. This Agreement may be executed in two or more identical counterparts, all of which 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. In the event that any signature is delivered by facsimile transmission or by an e-mail which contains a portable document format (.pdf) file of an executed signature page, such signature page 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 signature page were an original thereof.

(c) Headings; Gender. The headings of this Agreement are for convenience of reference and shall not form part of, or affect the interpretation of, this Agreement. 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 Agreement instead of just the provision in which they are found.

(d) Severability; Maximum Payment Amounts. If any provision of this Agreement 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 Agreement so long as this Agreement 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). Notwithstanding anything to the contrary contained in this Agreement or any other Transaction Document (and without implication that the following is required or applicable), it is the intention of the parties that in no event shall amounts and value paid by the Company and/or any of its Subsidiaries (as the case may be), or payable to or received by any of the Buyers, under the Transaction Documents (including without limitation, any amounts that would be characterized as "interest" under applicable law) exceed amounts permitted under any applicable law. Accordingly, if any obligation to pay, payment made to any Buyer, or collection by any Buyer pursuant to the Transaction Documents is finally judicially determined to be contrary to any such applicable law, such obligation to pay, payment or collection shall be deemed to have been made by mutual mistake of such Buyer, the Company and its Subsidiaries and such amount shall be deemed to have been adjusted with retroactive effect to the maximum amount or rate of interest, as the case may be, as would not be so prohibited by the applicable law. Such adjustment shall be effected, to the extent necessary, by reducing or refunding, at the option of such Buyer, the amount of interest or any other amounts which would constitute unlawful amounts required to be paid or actually paid to such Buyer under the Transaction Documents. For greater certainty, to the extent that any interest, charges, fees, expenses or other amounts required to be paid to or received by such Buyer under any of the Transaction Documents or related thereto are held to be within the meaning of "interest" or another applicable term to otherwise be violative of applicable law, such amounts shall be pro-rated over the period of time to which they relate.

(e) Entire Agreement; Amendments. This Agreement, the other Transaction Documents and the schedules and exhibits attached hereto and thereto and the instruments referenced herein and therein supersede all other prior oral or written agreements between the Buyers, the Company, its Subsidiaries, their affiliates and Persons acting on their behalf, including, without limitation, any transactions by any Buyer with respect to Common Stock or the Securities, and the other matters contained herein and therein, and this Agreement, the other Transaction Documents, the schedules and exhibits attached hereto and thereto and the instruments referenced herein and therein contain the entire understanding of the parties solely with respect to the matters covered herein and therein; provided, however, nothing contained in this Agreement or any other Transaction Document shall (or shall be deemed to) (i) have any effect on any agreements any Buyer has entered into with, or any instruments any Buyer has received from, the Company or any of its Subsidiaries prior to the date hereof with respect to any prior investment made by such Buyer in the Company or (ii) waive, alter, modify or amend in any respect any obligations of the Company or any of its Subsidiaries, or any rights of or benefits to any Buyer or any other Person, in any agreement entered into prior to the date hereof between or among the Company and/or any of its Subsidiaries and any Buyer, or any instruments any Buyer received from the Company and/or any of its Subsidiaries prior to the date hereof, and all such agreements and instruments shall continue in full force and effect. Except as specifically set forth herein or therein, neither the Company nor any Buyer makes any representation, warranty, covenant or undertaking with respect to such matters. For clarification purposes, the Recitals are part of this Agreement. No provision of this Agreement may be amended other than by an instrument in writing signed by the Company and the Required Holders (as defined below), and any amendment to any provision of this Agreement made in conformity with the provisions of this Section 9(e) shall be binding on all Buyers and holders of Securities, as applicable; provided that no such amendment shall be effective to the extent that it (A) applies to less than all of the holders of the Securities then outstanding or (B) imposes any obligation or liability on any Buyer without such Buyer's prior written consent (which may be granted or withheld in such Buyer's sole discretion); provided further that any such amendment or waiver that materially and adversely affects the rights of the Placement Agents shall require the prior written consent of the Placement Agents. No waiver shall be effective unless it is in writing and signed by an authorized representative of the waiving party, provided that the Required Holders may waive any provision of this Agreement, and any waiver of any provision of this Agreement made in conformity with the provisions of this Section 9(e) shall be binding on all Buyers and holders of Securities, as applicable, provided that no such waiver shall be effective to the extent that it (1) applies to less than all of the holders of the Securities then outstanding (unless a party gives a waiver as to itself only) or (2) imposes any obligation or liability on any Buyer without such Buyer's prior written consent (which may be granted or withheld in such Buyer's sole discretion). No consideration (other than reimbursement of legal fees) shall be offered or paid to any Person to amend or consent to a waiver or modification of any provision of any of the Transaction Documents unless the same consideration also is offered to all of the parties to the Transaction Documents, all Buyers or all holders of the Warrants (as the case may be). From the date hereof and while any Warrants are outstanding, the Company shall not be permitted to receive any consideration from a Buyer or a holder of Warrants that is not otherwise contemplated by the Transaction Documents in order to, directly or indirectly, induce the Company or any Subsidiary (i) to treat such Buyer or holder of Warrants in a manner that is more favorable than to other similarly situated Buyers or holders of Warrants, as applicable, or (ii) to treat any Buyer(s) or holder(s) of Warrants in a manner that is less favorable than the Buyer or holder of Warrants that is paying such consideration; provided, however, that the determination of whether a Buyer has been treated more or less favorably than another Buyer shall disregard any securities of the Company purchased or sold by any Buyer. The Company has not, directly or indirectly, made any agreements with any Buyers relating to the terms or conditions of the transactions contemplated by the Transaction Documents except as set forth in the Transaction Documents. Without limiting the foregoing, the Company confirms that, except as set forth in this Agreement, no Buyer has made any commitment or promise or has any other obligation to provide any financing to the Company, any Subsidiary or otherwise. As a material inducement for each Buyer to enter into this Agreement, the Company expressly acknowledges and agrees that (x) no due diligence or other investigation or inquiry conducted by a Buyer, any of its advisors or any of its representatives shall affect such Buyer's right to rely on, or shall modify or qualify in any manner or be an exception to any of, the Company's representations and warranties contained in this Agreement or any other Transaction Document and (y) unless a provision of this Agreement or any other Transaction Document is expressly preceded by the phrase "except as disclosed in the SEC Documents," nothing contained in any of the SEC Documents shall affect such Buyer's right to rely on, or shall modify or qualify in any manner or be an exception to any of, the Company's representations and warranties contained in this Agreement or any other Transaction Document. "**Required Holders**" means (I) prior to the Closing Date, each Buyer entitled to purchase Common Shares and Warrants at the Closing and (II) on or after the Closing Date, holders of a majority of the Registrable Securities as of such time (excluding any Registrable Securities held by the Company or any of its Subsidiaries as of such time) issued or issuable hereunder or pursuant to the Warrants.

(f) Notices. Any notices, consents, waivers or other communications required or permitted to be given under the terms of this Agreement must be in writing and will be deemed to have been delivered: (i) upon receipt, when delivered personally; (ii) upon receipt, when sent by electronic mail (provided that such sent email is kept on file (whether electronically or otherwise) by the sending party and the sending party does not receive an automatically generated message from the recipient's email server that such e-mail could not be delivered to such recipient); or (iii) one (1) Business Day after deposit with an overnight courier service with next day delivery specified, in each case, properly addressed to the party to receive the same. The mailing addresses and e-mail addresses for such communications shall be:

If to the Company:

Marker Therapeutics, Inc..
2450 Holcombe Blvd
Suite BCM-A, MS: BCM251
Houston, Texas 77021
Telephone: (713) 591-8100
Attention: Chief Executive Officer
E-Mail: jvera@markertherapeutics.com

With a copy (for informational purposes only) to:

Shumaker, Loop & Kendrick, LLP
101 East Kennedy Boulevard, Suite 2800
Tampa, FL 33602
Telephone: (813) 227-2325
Attention: Julio C. Esquivel
E-Mail: Jesquivel@shumaker.com

If to the Transfer Agent:

EQ Shareowner Services
PO Box 64874
St Paul MN 55164-0874
Telephone: (929) 625-4523
Attention: Maritza Vicole
Senior Relationship Manager
Relationship Management
E-Mail: admin11@equiniti.com

If to a Buyer, to its mailing address and e-mail address set forth on the on the signature page of such Buyer attached hereto, with copies to such Buyer's representatives as set forth on the signature page of such Buyer attached hereto;

or to such other mailing address and/or e-mail address and/or to the attention of such other Person as the recipient party has specified by written notice given to each other party five (5) days prior to the effectiveness of such change. Written confirmation of receipt (A) given by the recipient of such notice, consent, waiver or other communication, (B) mechanically or electronically generated by the sender's e-mail containing the time, date and recipient's e-mail or (C) provided by an overnight courier service shall be rebuttable evidence of personal service, receipt by e-mail or receipt from an overnight courier service in accordance with clause (i), (ii) or (iii) above, respectively.

(g) Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and assigns, including any purchasers of any of the Common Shares and Warrants (other than purchasers of Common Shares in open market transactions). The Company shall not assign this Agreement or any rights or obligations hereunder without the prior written consent of the Required Holders, including, without limitation, by way of a Fundamental Transaction (as defined in the Warrants) (unless the Company is in compliance with the applicable provisions governing Fundamental Transactions set forth in the Warrants). A Buyer may assign some or all of its rights hereunder in connection with any transfer of any of its Securities without the consent of the Company, in which event such assignee shall be deemed to be a Buyer hereunder with respect to such assigned rights.

(h) No Third Party Beneficiaries. This Agreement is intended for the benefit of the parties hereto and their respective permitted successors and assigns, and is not for the benefit of, nor may any provision hereof be enforced by, any other Person, other than (i) the Indemnitees referred to in Section 9(m) and (ii) the Placement Agents shall be a third party beneficiaries of this Agreement.

(i) Reliance by the Placement Agents. Each party agrees and acknowledges that the Placement Agents may rely on the representations, warranties, agreements and covenants of the Company contained in this Agreement and may rely on the representations and warranties of the respective Buyers contained in this Agreement as if such representations, warranties, agreements, and covenants, as applicable, were made directly to the Placement Agents. The parties further agree that the Placement Agents may rely on or, if the Placement Agents so request, be specifically named as an addressee of, the legal opinions to be delivered pursuant to Section 7(ii) of this Agreement.

(j) Exculpation of Placement Agents. Each party hereto agrees for the express benefit of each of the Placement Agents, their affiliates and representatives that:

(i) Neither the Placement Agents nor any of their respective affiliates or any of their respective representatives (1) has any duties or obligations other than those specifically set forth herein or in any engagement letters between the Company and the Placement Agents; (2) shall be liable for any improper payment made in accordance with the information provided by the Company; (3) makes any representation or warranty, or has any responsibilities as to the validity, accuracy, value or genuineness of any information, certificates or documentation delivered by or on behalf of the Company pursuant to this Agreement or the Transaction Documents or in connection with any of the transactions contemplated hereby; or (4) shall be liable (x) for any action taken, suffered or omitted by any of them in good faith and reasonably believed to be authorized or within the discretion or rights or powers conferred upon it by this Agreement or any Transaction Document or (y) for anything which any of them may do or refrain from doing in connection with this Agreement or any Transaction Document, except for such party's own gross negligence, willful misconduct or bad faith.

(ii) The Placement Agents, and their respective affiliates and representatives shall be entitled to (1) rely on, and shall be protected in acting upon, any certificate, instrument, opinion, notice, letter or any other document or security delivered to any of them by or on behalf of the Company, and (2) be indemnified by the Company for acting as Placement Agents hereunder pursuant the indemnification provisions set forth in any engagement letters between the Company and the Placement Agents.

(k) Survival. The representations, warranties, agreements and covenants shall survive the Closing. Each Buyer shall be responsible only for its own representations, warranties, agreements and covenants hereunder.

(l) Further Assurances. Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents, as any other party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

(m) Indemnification. In consideration of each Buyer's execution and delivery of the Transaction Documents and acquiring the Securities thereunder and in addition to all of the Company's other obligations under the Transaction Documents, the Company shall defend, protect, indemnify and hold harmless each Buyer and each holder of any Securities and all of their stockholders, partners, members, officers, directors, employees and direct or indirect investors and any of the foregoing Persons' agents or other representatives (including, without limitation, those retained in connection with the transactions contemplated by this Agreement) (collectively, the "**Indemnitees**") from and against any and all actions, causes of action, suits, claims, losses, costs, penalties, fees, liabilities and damages, and expenses in connection therewith (irrespective of whether any such Indemnitee is a party to the action for which indemnification hereunder is sought), and including reasonable attorneys' fees and disbursements (the "**Indemnified Liabilities**"), incurred by any Indemnitee as a result of, or arising out of, or relating to (i) any misrepresentation or breach of any representation or warranty made by the Company or any Subsidiary in any of the Transaction Documents, (ii) any breach of any covenant, agreement or obligation of the Company or any Subsidiary contained in any of the Transaction Documents or (iii) any cause of action, suit, proceeding or claim brought or made against such Indemnitee by a third party (including for these purposes a derivative action brought on behalf of the Company or any Subsidiary) or which otherwise involves such Indemnitee that arises out of or results from (A) the execution, delivery, performance or enforcement of any of the Transaction Documents, (B) any transaction financed or to be financed in whole or in part, directly or indirectly, with the proceeds of the issuance of the Securities, (C) any disclosure properly made by such Buyer pursuant to Section 4(i), or (D) the status of such Buyer or holder of the Securities either as an investor in the Company pursuant to the transactions contemplated by the Transaction Documents or as a party to this Agreement (including, without limitation, as a party in interest or otherwise in any action or proceeding for injunctive or other equitable relief). To the extent that the foregoing undertaking by the Company may be unenforceable for any reason, the Company shall make the maximum contribution to the payment and satisfaction of each of the Indemnified Liabilities which is permissible under applicable law. Except as otherwise set forth herein, the mechanics and procedures with respect to the rights and obligations under this Section 9(m) shall be the same as those set forth in Section 6 of the Registration Rights Agreement.

(n) Construction. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party. No specific representation or warranty shall limit the generality or applicability of a more general representation or warranty. Each and every reference to share prices, shares of Common Stock and any other numbers in this Agreement that relate to the Common Stock shall be automatically adjusted for any stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions that occur with respect to the Common Stock after the date of this Agreement. Notwithstanding anything in this Agreement to the contrary, for the avoidance of doubt, nothing contained herein shall constitute a representation or warranty against, or a prohibition of, any actions with respect to the borrowing of, arrangement to borrow, identification of the availability of, and/or securing of, securities of the Company in order for such Buyer (or its broker or other financial representative) to effect short sales or similar transactions in the future.

(o) Remedies. Each Buyer and in the event of assignment by Buyer of its rights and obligations hereunder, each holder of Securities, shall have all rights and remedies set forth in the Transaction Documents and all rights and remedies which such holders have been granted at any time under any other agreement or contract and all of the rights which such holders have under any law. Any Person having any rights under any provision of this Agreement shall be entitled to enforce such rights specifically (without posting a bond or other security), to recover damages by reason of any breach of any provision of this Agreement and to exercise all other rights granted by law. Furthermore, the Company recognizes that in the event that it or any Subsidiary fails to perform, observe, or discharge any or all of its or such Subsidiary's (as the case may be) obligations under the Transaction Documents, any remedy at law would inadequate relief to the Buyers. The Company therefore agrees that the Buyers shall be entitled to specific performance and/or temporary, preliminary and permanent injunctive or other equitable relief from any court of competent jurisdiction in any such case without the necessity of proving actual damages and without posting a bond or other security. The remedies provided in this Agreement and the other Transaction Documents shall be cumulative and in addition to all other remedies available under this Agreement and the other Transaction Documents, at law or in equity (including a decree of specific performance and/or other injunctive relief).

(p) Withdrawal Right. Notwithstanding anything to the contrary contained in (and without limiting any similar provisions of) the Transaction Documents, whenever any Buyer exercises a right, election, demand or option under a Transaction Document and the Company or any Subsidiary does not timely perform its related obligations within the periods therein provided, then such Buyer may rescind or withdraw, in its sole discretion from time to time upon written notice to the Company or such Subsidiary (as the case may be), any relevant notice, demand or election in whole or in part without prejudice to its future actions and rights.

(q) Payment Set Aside; Currency. To the extent that the Company makes a payment or payments to any Buyer hereunder or pursuant to any of the other Transaction Documents or any of the Buyers enforce or exercise their rights hereunder or 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 the Company, a trustee, receiver or any other Person under any law (including, without limitation, any bankruptcy law, foreign, 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 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. Unless otherwise expressly indicated, all dollar amounts referred to in this Agreement and the other Transaction Documents are in United States Dollars ("**U.S. Dollars**"), and all amounts owing under this Agreement and all other Transaction Documents 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 Agreement, the U.S. Dollar exchange rate as published in the Wall Street Journal on the relevant date of calculation.

(r) Judgment Currency.

(i) If for the purpose of obtaining or enforcing judgment against the Company in connection with this Agreement or any other Transaction Document in any court in any jurisdiction it becomes necessary to convert into any other currency (such other currency being hereinafter in this Section 9(r) referred to as the “**Judgment Currency**”) an amount due in US Dollars under this Agreement, the conversion shall be made at the Exchange Rate prevailing on the Trading Day immediately preceding:

(1) 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

(2) 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 9(r)(i)(2) being hereinafter referred to as the “**Judgment Conversion Date**”).

(ii) If in the case of any proceeding in the court of any jurisdiction referred to in Section 9(r)(i)(2) above, 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.

(iii) 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 Agreement or any other Transaction Document.

(s) Independent Nature of Buyers' Obligations and Rights. The obligations of each Buyer under the Transaction Documents are several and not joint with the obligations of any other Buyer, and no Buyer shall be responsible in any way for the performance of the obligations of any other Buyer under any Transaction Document. Nothing contained herein or in any other Transaction Document, and no action taken by any Buyer pursuant hereto or thereto, shall be deemed to constitute the Buyers as, and the Company acknowledges that the Buyers do not so constitute, a partnership, an association, a joint venture or any other kind of group or entity, or create a presumption that the Buyers are in any way acting in concert or as a group or entity, and the Company shall not assert any such claim with respect to such obligations or the transactions contemplated by the Transaction Documents or any matters, and the Company acknowledges that the Buyers are not acting in concert or as a group, and the Company shall not assert any such claim, with respect to such obligations or the transactions contemplated by the Transaction Documents. The decision of each Buyer to purchase Securities pursuant to the Transaction Documents has been made by such Buyer independently of any other Buyer. Each Buyer acknowledges that no other Buyer has acted as agent for such Buyer in connection with such Buyer making its investment hereunder and that no other Buyer will be acting as agent of such Buyer in connection with monitoring such Buyer's investment in the Securities or enforcing its rights under the Transaction Documents. The Company and each Buyer confirms that each Buyer has independently participated with the Company and its Subsidiaries in the negotiation of the transaction contemplated hereby with the advice of its own counsel and advisors. Each Buyer shall be entitled to independently protect and enforce its rights, including, without limitation, the rights arising out of this Agreement or out of any other Transaction Documents, and it shall not be necessary for any other Buyer to be joined as an additional party in any proceeding for such purpose. The use of a single agreement to effectuate the purchase and sale of the Securities contemplated hereby was solely in the control of the Company, not the action or decision of any Buyer, and was done solely for the convenience of the Company and its Subsidiaries and not because it was required or requested to do so by any Buyer. It is expressly understood and agreed that each provision contained in this Agreement and in each other Transaction Document is between the Company, each Subsidiary and a Buyer, solely, and not between the Company, its Subsidiaries and the Buyers collectively and not between and among the Buyers.

[signature pages follow]

IN WITNESS WHEREOF, each Buyer and the Company have caused their respective signature page to this Agreement to be duly executed as of the date first written above.

COMPANY:

MARKER THERAPEUTICS, INC.

By: _____
Name:
Title:

IN WITNESS WHEREOF, each Buyer and the Company have caused their respective signature page to this Agreement to be duly executed as of the date first written above.

BUYER:

Name of Buyer: _____

Signature of Authorized Signatory of Buyer: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Email Address of Authorized Signatory: _____

Address for Notice to Buyer:

Address for Delivery of Securities to Buyer (if not same as address for notice):

Aggregate Purchase Price: \$ _____ (\$3.20 per each unit consisting of one (1) Common Share (or a Series B Prepaid Warrant to purchase one (1) Warrant Share) and a Series A Warrant to purchase one (1) Warrant Share)

Common Shares: _____

Series B Warrant Shares: _____

Series A Warrant Shares: _____

EIN Number: _____

Residence: _____

Please select beneficial ownership limitation: 4.99% or 9.99% N/A

[BUYER SIGNATURE PAGE TO MRKR SECURITIES PURCHASE AGREEMENT]

REGISTRATION RIGHTS AGREEMENT

This **REGISTRATION RIGHTS AGREEMENT** (this “**Agreement**”), dated as of December 19, 2024, is by and among Marker Therapeutics, Inc., a Delaware corporation with offices located at 2450 Holcombe Blvd, Suite BCM-A, MS: BCM251, Houston, Texas 77021 (the “**Company**”), and the undersigned buyers (each, a “**Buyer**,” and collectively, the “**Buyers**”).

RECITALS

A. In connection with the Securities Purchase Agreement by and among the parties hereto, dated as of December 19, 2024 (the “**Securities Purchase Agreement**”), the Company has agreed, upon the terms and subject to the conditions of the Securities Purchase Agreement, to issue and sell to each Buyer (i) the Common Shares (as defined in the Securities Purchase Agreement) and (ii) the Warrants (as defined in the Securities Purchase Agreement) which will be exercisable to purchase Warrant Shares (as defined in the Securities Purchase Agreement) in accordance with the terms of the Warrants.

B. To induce the Buyers to consummate the transactions contemplated by the Securities Purchase Agreement, the Company has agreed to provide certain registration rights under the Securities Act of 1933, as amended, and the rules and regulations thereunder, or any similar successor statute (collectively, the “**1933 Act**”), and applicable state securities laws.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and each of the Buyers hereby agree as follows:

1. Definitions.

Capitalized terms used herein and not otherwise defined herein shall have the respective meanings set forth in the Securities Purchase Agreement. As used in this Agreement, the following terms shall have the following meanings:

(a) “**Business Day**” means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to “stay at home”, “shelter-in-place”, “non-essential employee” or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

(b) “**Closing Date**” shall have the meaning set forth in the Securities Purchase Agreement.

(c) “**Effective Date**” means the date that the applicable Registration Statement has been declared effective by the SEC.

(d) “**Effectiveness Deadline**” means (i) with respect to the initial Registration Statement required to be filed pursuant to Section 2(a), the earlier of the (A) February 14, 2025 and (B) 2nd Business Day after the date the Company is notified (orally or in writing, whichever is earlier) by the SEC that such Registration Statement will not be reviewed or will not be subject to further review and (ii) with respect to any additional Registration Statements that may be required to be filed by the Company pursuant to this Agreement, the earlier of the (A) 60th calendar day following the date on which the Company was required to file such additional Registration Statement and (B) 2nd Business Day after the date the Company is notified (orally or in writing, whichever is earlier) by the SEC that such Registration Statement will not be reviewed or will not be subject to further review.

(e) “**Filing Deadline**” means (i) with respect to the initial Registration Statement required to be filed pursuant to Section 2(a), January 14, 2025 and (ii) with respect to any additional Registration Statements that may be required to be filed by the Company pursuant to this Agreement, the date on which the Company was required to file such additional Registration Statement pursuant to the terms of this Agreement.

(f) “**Investor**” means a Buyer or any transferee or assignee of any Registrable Securities or Warrants, as applicable, to whom a Buyer assigns its rights under this Agreement and who agrees to become bound by the provisions of this Agreement in accordance with Section 9 and any transferee or assignee thereof to whom a transferee or assignee of any Registrable Securities or Warrants, as applicable, assigns its rights under this Agreement and who agrees to become bound by the provisions of this Agreement in accordance with Section 9.

(g) “**Person**” means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization or a government or any department or agency thereof.

(h) “**register**,” “**registered**,” and “**registration**” refer to a registration effected by preparing and filing one or more Registration Statements in compliance with the 1933 Act and pursuant to Rule 415 and the declaration of effectiveness of such Registration Statement(s) by the SEC.

(i) “**Registrable Securities**” means (i) the Common Shares, (ii) the Warrant Shares and (iii) any capital stock of the Company issued or issuable with respect to the Common Shares, the Warrant Shares or the Warrants, including, without limitation, (1) as a result of any stock split, stock dividend, recapitalization, exchange or similar event or otherwise and (2) shares of capital stock of the Company into which the shares of Common Stock (as defined in the Warrants) are exercised or exchanged and shares of capital stock of a Successor Entity (as defined in the Warrants) into which the shares of Common Stock are exercised or exchanged, in each case, without regard to any limitations on exercise of the Warrants.

(j) “**Registration Statement**” means a registration statement or registration statements of the Company filed under the 1933 Act covering Registrable Securities.

(k) “**Required Holders**” means, as of any given time, the holders of a majority of the Registrable Securities as of such time (excluding any Registrable Securities held by the Company or any of its Subsidiaries as of such time).

(l) “**Required Registration Amount**” the sum of (i) 100% of the number of Common Shares issued pursuant to the Securities Purchase Agreement and (ii) 100% of the maximum number of Warrant Shares issuable upon exercise of the Warrants (assuming for purposes hereof that any such exercise shall not take into account any limitations on the exercise of the Warrants set forth in the Warrants), all subject to adjustment as provided in Section 2(d) and/or Section 2(f).

(m) “**Rule 144**” means Rule 144 promulgated by the SEC under the 1933 Act, as such rule may be amended from time to time, or any other similar or successor rule or regulation of the SEC that may at any time permit the Investors to sell securities of the Company to the public without registration.

(n) “**Rule 415**” means Rule 415 promulgated by the SEC under the 1933 Act, as such rule may be amended from time to time, or any other similar or successor rule or regulation of the SEC providing for offering securities on a continuous or delayed basis.

(o) “**SEC**” means the United States Securities and Exchange Commission or any successor thereto.

2. Registration.

(a) Mandatory Registration. The Company shall prepare and, as soon as practicable, but in no event later than the Filing Deadline, file with the SEC an initial Registration Statement on Form S-3 covering the resale of all of the Registrable Securities, provided that such initial Registration Statement shall register for resale at least the number of shares of Common Stock equal to the Required Registration Amount as of the date such Registration Statement is initially filed with the SEC; provided further that if Form S-3 is unavailable for such a registration, the Company shall use such other form as is required by Section 2(c). Such initial Registration Statement, and each other Registration Statement required to be filed pursuant to the terms of this Agreement, shall contain (except if otherwise directed by the Required Holders) the “Selling Stockholders” and “Plan of Distribution” sections in substantially the form attached hereto as **Exhibit B**. The Company shall use its best efforts to have such initial Registration Statement, and each other Registration Statement required to be filed pursuant to the terms of this Agreement, declared effective by the SEC as soon as practicable, but in no event later than the applicable Effectiveness Deadline for such Registration Statement.

(b) Legal Counsel. Subject to Section 5 hereof, Kelley Drye & Warren LLP, documentation special counsel to Canaccord Genuity LLC (“**Legal Counsel**”) shall review and oversee any registration pursuant to this Section 2.

(c) Ineligibility to Use Form S-3. In the event that 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 Form S-1 or another appropriate form reasonably acceptable to the Required Holders and (ii) undertake to register the resale of the Registrable Securities on Form S-3 as soon as such form is available, provided that the Company shall maintain the effectiveness of all Registration Statements then in effect until such time as a Registration Statement on Form S-3 covering the resale of all the Registrable Securities has been declared effective by the SEC and the prospectus contained therein is available for use.

(d) Sufficient Number of Shares Registered. In the event the number of shares available under any Registration Statement is insufficient to cover all of the Registrable Securities required to be covered by such Registration Statement or an Investor's allocated portion of the Registrable Securities pursuant to Section 2(h), the Company shall amend such Registration Statement (if permissible), or file with the SEC a new Registration Statement (on the short form available therefor, if applicable), or both, so as to cover at least the Required Registration Amount as of the Trading Day (as defined in the Securities Purchase Agreement) immediately preceding the date of the filing of such amendment or new Registration Statement, in each case, as soon as practicable, but in any event not later than fifteen (15) days after the necessity therefor arises (but taking account of any Staff position with respect to the date on which the Staff will permit such amendment to the Registration Statement and/or such new Registration Statement (as the case may be) to be filed with the SEC). The Company shall use its best efforts to cause such amendment to such Registration Statement and/or such new Registration Statement (as the case may be) to become effective as soon as practicable following the filing thereof with the SEC, but in no event later than the applicable Effectiveness Deadline for such Registration Statement. For purposes of the foregoing provision, the number of shares available under a Registration Statement shall be deemed "insufficient to cover all of the Registrable Securities" if at any time during the Registration Period (as defined below) the number of shares of Common Stock available for resale under the applicable Registration Statement is less than the product determined by multiplying (i) the Required Registration Amount as of such time by (ii) 0.90. The calculation set forth in the foregoing sentence shall be made without regard to any limitations on exercise of the Warrants (and such calculation shall assume that the Warrants are then fully exercisable for shares of Common Stock at the then-prevailing applicable Exercise Price).

(e) Effect of Failure to File and Obtain and Maintain Effectiveness of any Registration Statement. If (i) a Registration Statement covering the resale of all of the Registrable Securities required to be covered thereby (disregarding any reduction pursuant to Section 2(f) and required to be filed by the Company pursuant to this Agreement is (A) not filed with the SEC on or before the Filing Deadline for such Registration Statement (a "**Filing Failure**") (it being understood that if the Company files a Registration Statement without affording each Investor and Legal Counsel the opportunity to review and comment on the same as required by Section 3(c) hereof, the Company shall be deemed to not have satisfied this clause (i)(A) and such event shall be deemed to be a Filing Failure) or (B) not declared effective by the SEC on or before the Effectiveness Deadline for such Registration Statement (an "**Effectiveness Failure**") (it being understood that if on the Business Day immediately following the Effective Date for such Registration Statement the Company shall not have filed a "final" prospectus for such Registration Statement with the SEC under Rule 424(b) in accordance with Section 3(b) (whether or not such a prospectus is technically required by such rule), the Company shall be deemed to not have satisfied this clause (i)(B) and such event shall be deemed to be an Effectiveness Failure), (ii) other than during an Allowable Grace Period (as defined below), on any day after the Effective Date of a Registration Statement sales of all of the Registrable Securities required to be included on such Registration Statement (disregarding any reduction pursuant to Section 2(f) cannot be made pursuant to such Registration Statement (including, without limitation, because of a failure to keep such Registration Statement effective, a failure to disclose such information as is necessary for sales to be made pursuant to such Registration Statement, a suspension or delisting of (or a failure to timely list) the shares of Common Stock on the Principal Market (as defined in the Securities Purchase Agreement) or any other limitations imposed by the Principal Market, or a failure to register a sufficient number of shares of Common Stock or by reason of a stop order) or the prospectus contained therein is not available for use for any reason (a "**Maintenance Failure**"), or (iii) if a Registration Statement is not effective for any reason or the prospectus contained therein is not available for use for any reason, and either (x) the Company fails for any reason to satisfy the requirements of Rule 144(c)(1), including, without limitation, the failure to satisfy the current public information requirement under Rule 144(c) or (y) the Company has ever been an issuer described in Rule 144(i)(1)(i) or becomes such an issuer in the future, and the Company shall fail to satisfy any condition set forth in Rule 144(i)(2) (a "**Current Public Information Failure**") as a result of which any of the Investors are unable to sell Registrable Securities without restriction under Rule 144 (including, without limitation, volume restrictions), then, as partial relief for the damages to any holder by reason of any such delay in, or reduction of, its ability to sell the underlying shares of Common Stock (which remedy shall not be exclusive of any other remedies available at law or in equity, including, without limitation, specific performance), the Company shall pay to each holder of Registrable Securities relating to such Registration Statement an amount in cash equal to one percent (1%) of such Investor's original Purchase Price (as defined in the Securities Purchase Agreement): (1) on the date of such Filing Failure, Effectiveness Failure, Maintenance Failure or Current Public Information Failure, as applicable, and (2) on every thirty (30) day anniversary of (I) a Filing Failure until such Filing Failure is cured; (II) an Effectiveness Failure until such Effectiveness Failure is cured; (III) a Maintenance Failure until such Maintenance Failure is cured; and (IV) a Current Public Information Failure until the earlier of (i) the date such Current Public Information Failure is cured and (ii) such time that such public information is no longer required pursuant to Rule 144 (in each case, pro rated for periods totaling less than thirty (30) days). The payments to which a holder of Registrable Securities shall be entitled pursuant to this Section 2(e) are referred to herein as "**Registration Delay Payments**." Following the initial Registration Delay Payment for any particular event or failure (which shall be paid on the date of such event or failure, as set forth above), without limiting the foregoing, if an event or failure giving rise to the Registration Delay Payments is cured prior to any thirty (30) day anniversary of such event or failure, then such Registration Delay Payment shall be made on the third (3rd) Business Day after such cure. In the event the Company fails to make Registration Delay Payments in a timely manner in accordance with the foregoing, such Registration Delay Payments shall bear interest at the rate of one percent (1%) per month (prorated for partial months) until paid in full. Notwithstanding the foregoing, no Registration Delay Payments shall be owed to an Investor (other than with respect to a Maintenance Failure resulting from a suspension or delisting of (or a failure to timely list) the shares of Common Stock on the Principal Market) with respect to any period during which all of such Investor's Registrable Securities may be sold by such Investor without restriction under Rule 144 (including, without limitation, volume restrictions) and without the need for current public information required by Rule 144(c)(1) (or Rule 144(i)(2), if applicable).

(f) Offering. Notwithstanding anything to the contrary contained in this Agreement, but subject to the payment of the Registration Delay Payments pursuant to Section 2(e), in the event the staff of the SEC (the “**Staff**”) or the SEC seeks to characterize any offering pursuant to a Registration Statement filed pursuant to this Agreement as constituting an offering of securities by, or on behalf of, the Company, or in any other manner, such that the Staff or the SEC do not permit such Registration Statement to become effective and used for resales in a manner that does not constitute such an offering and that permits the continuous resale at the market by the Investors participating therein (or as otherwise may be acceptable to each Investor) without being named therein as an “underwriter,” then the Company shall reduce the number of shares to be included in such Registration Statement by all Investors until such time as the Staff and the SEC shall so permit such Registration Statement to become effective as aforesaid. In making such reduction, the Company shall reduce the number of shares to be included by all Investors on a pro rata basis (based upon the number of Registrable Securities otherwise required to be included for each Investor) unless the inclusion of shares by a particular Investor or a particular set of Investors are resulting in the Staff or the SEC’s “by or on behalf of the Company” offering position, in which event the shares held by such Investor or set of Investors shall be the only shares subject to reduction (and if by a set of Investors on a pro rata basis by such Investors or on such other basis as would result in the exclusion of the least number of shares by all such Investors); provided, that, with respect to such pro rata portion allocated to any Investor, such Investor may elect the allocation of such pro rata portion among the Registrable Securities of such Investor. In addition, in the event that the Staff or the SEC requires any Investor seeking to sell securities under a Registration Statement filed pursuant to this Agreement to be specifically identified as an “underwriter” in order to permit such Registration Statement to become effective, and such Investor does not consent to being so named as an underwriter in such Registration Statement, then, in each such case, the Company shall reduce the total number of Registrable Securities to be registered on behalf of such Investor, until such time as the Staff or the SEC does not require such identification or until such Investor accepts such identification and the manner thereof. Any reduction pursuant to this paragraph will first reduce all Registrable Securities other than those issued pursuant to the Securities Purchase Agreement. In the event of any reduction in Registrable Securities pursuant to this paragraph, an affected Investor shall have the right to require, upon delivery of a written request to the Company signed by such Investor, the Company to file a registration statement within twenty (20) days of such request (subject to any restrictions imposed by Rule 415 or required by the Staff or the SEC) for resale by such Investor in a manner acceptable to such Investor, and the Company shall following such request cause to be and keep effective such registration statement in the same manner as otherwise contemplated in this Agreement for registration statements hereunder, in each case until such time as: (i) all Registrable Securities held by such Investor have been registered and sold pursuant to an effective Registration Statement in a manner acceptable to such Investor or (ii) all Registrable Securities may be resold by such Investor without restriction (including, without limitation, volume limitations) pursuant to Rule 144 (taking account of any Staff 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) or (iii) such Investor agrees to be named as an underwriter in any such Registration Statement in a manner acceptable to such Investor as to all Registrable Securities held by such Investor and that have not theretofore been included in a Registration Statement under this Agreement (it being understood that the special demand right under this sentence may be exercised by an Investor multiple times and with respect to limited amounts of Registrable Securities in order to permit the resale thereof by such Investor as contemplated above).

(g) Piggyback Registrations. Without limiting any obligation of the Company hereunder or under the Securities Purchase Agreement, if there is not an effective Registration Statement covering all of the Registrable Securities or the prospectus contained therein is not available for use and the Company shall determine to prepare and file with the SEC a registration statement or an offering statement relating to an offering for its own account or the account of others under the 1933 Act of any of its equity securities (other than on Form S-4 or Form S-8 (each as promulgated under the 1933 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 each Investor a written notice of such determination and, if within fifteen (15) days after the date of the delivery of such notice, any such Investor shall so request in writing, the Company shall include in such registration statement or offering statement all or any part of such Registrable Securities such Investor requests to be registered; provided, however, the Company shall not be required to register any Registrable Securities pursuant to this Section 2(g) that are eligible for resale pursuant to Rule 144 without restriction (including, without limitation, volume restrictions) and without the need for current public information required by Rule 144(c)(1) (or Rule 144(i)(2), if applicable) or that are the subject of a then-effective Registration Statement.

(h) Allocation of Registrable Securities. The initial number of Registrable Securities included in any Registration Statement and any increase in the number of Registrable Securities included therein shall be allocated pro rata among the Investors based on the number of Registrable Securities held by each Investor at the time such Registration Statement covering such initial number of Registrable Securities or increase thereof is declared effective by the SEC. In the event that an Investor sells or otherwise transfers any of such Investor's Registrable Securities, each transferee or assignee (as the case may be) that becomes an Investor shall be allocated a pro rata portion of the then-remaining number of Registrable Securities included in such Registration Statement for such transferor or assignee (as the case may be). Any shares of Common Stock included in a Registration Statement and which remain allocated to any Person which ceases to hold any Registrable Securities covered by such Registration Statement shall be allocated to the remaining Investors, pro rata based on the number of Registrable Securities then held by such Investors which are covered by such Registration Statement.

(i) No Inclusion of Other Securities. The Company shall in no event include any securities other than Registrable Securities on any Registration Statement filed in accordance herewith without the prior written consent of the Required Holders. Until the Applicable Date (as defined in the Securities Purchase Agreement), the Company shall not enter into any agreement providing any registration rights to any of its security holders, except as otherwise permitted under the Securities Purchase Agreement.

3. Related Obligations.

The Company shall use its best efforts to effect the registration of the Registrable Securities in accordance with the intended method of disposition thereof, and, pursuant thereto, the Company shall have the following obligations:

(a) The Company shall promptly prepare and file with the SEC a Registration Statement with respect to all the Registrable Securities (but in no event later than the applicable Filing Deadline) and use its best efforts to cause such Registration Statement to become effective as soon as practicable after such filing (but in no event later than the Effectiveness Deadline). Subject to Allowable Grace Periods, the Company shall keep each Registration Statement effective (and the prospectus contained therein available for use) pursuant to Rule 415 for resales by the Investors on a delayed or continuous basis at then-prevailing market prices (and not fixed prices) at all times until the earlier of (i) the date as of which all of the Investors may sell all of the Registrable Securities required to be covered by such Registration Statement (disregarding any reduction pursuant to Section 2(f)) without restriction pursuant to Rule 144 (including, without limitation, volume restrictions) and without the need for current public information required by Rule 144(c)(1) (or Rule 144(i)(2), if applicable) or (ii) the date on which the Investors shall have sold all of the Registrable Securities covered by such Registration Statement (the "**Registration Period**"). Notwithstanding anything to the contrary contained in this Agreement, the Company shall ensure that, when filed and at all times while effective, each Registration Statement (including, without limitation, all amendments and supplements thereto) and the prospectus (including, without limitation, all amendments and supplements thereto) used in connection with such Registration Statement (1) shall not contain any 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 the case of prospectuses, in the light of the circumstances in which they were made) not misleading and (2) will disclose (whether directly or through incorporation by reference to other SEC filings to the extent permitted) all material information regarding the Company and its securities. The Company shall submit to the SEC, within one (1) Business Day after the later of the date that (i) the Company learns that no review of a particular Registration Statement will be made by the Staff or that the Staff has no further comments on a particular Registration Statement (as the case may be) and (ii) the consent of Legal Counsel is obtained pursuant to Section 3(c) (which consent shall be immediately sought), a request for acceleration of effectiveness of such Registration Statement to a time and date not later than twenty-four (24) hours after the submission of such request. The Company shall respond in writing to comments made by the SEC in respect of a Registration Statement as soon as practicable, but in no event later than fifteen (15) days after the receipt of comments by or notice from the SEC that an amendment is required in order for a Registration Statement to be declared effective.

(b) Subject to Section 3(r) of this Agreement, the Company shall prepare and file with the SEC such amendments (including, without limitation, post-effective amendments) and supplements to each Registration Statement and the prospectus used in connection with each such Registration Statement, which prospectus is to be filed pursuant to Rule 424 promulgated under the 1933 Act, as may be necessary to keep each such Registration Statement effective at all times during the Registration Period for such Registration Statement, and, during such period, comply with the provisions of the 1933 Act with respect to the disposition of all Registrable Securities of the Company required to be covered by such Registration Statement until such time as all of such Registrable Securities shall have been disposed of in accordance with the intended methods of disposition by the seller or sellers thereof as set forth in such Registration Statement; provided, however, by 8:30 a.m. (New York time) on the Business Day immediately following each Effective Date, the Company shall file with the SEC in accordance with Rule 424(b) under the 1933 Act the final prospectus to be used in connection with sales pursuant to the applicable Registration Statement (whether or not such a prospectus is technically required by such rule). In the case of amendments and supplements to any Registration Statement which are required to be filed pursuant to this Agreement (including, without limitation, pursuant to this Section 3(b)) by reason of the Company filing a report on Form 8-K, Form 10-Q or Form 10-K or any analogous report under the Securities Exchange Act of 1934, as amended (the “1934 Act”), the Company shall, if permitted under the applicable rules and regulations of the SEC, have incorporated such report by reference into such Registration Statement, if applicable, or shall file such amendments or supplements with the SEC on the same day on which the 1934 Act report is filed which created the requirement for the Company to amend or supplement such Registration Statement.

(c) The Company shall (A) permit Legal Counsel and legal counsel for each Investor to review and comment upon (i) each Registration Statement at least five (5) Business Days prior to its filing with the SEC and (ii) all amendments and supplements to each Registration Statement (including, without limitation, the prospectus contained therein) (except for Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and any similar or successor reports) within a reasonable number of days prior to their filing with the SEC, and (B) not file any Registration Statement or amendment or supplement thereto in a form to which Legal Counsel or any legal counsel for any other Investor reasonably objects. The Company shall not submit a request for acceleration of the effectiveness of a Registration Statement or any amendment or supplement thereto or to any prospectus contained therein without the prior consent of Legal Counsel, which consent shall not be unreasonably withheld. The Company shall promptly furnish to Legal Counsel and legal counsel for each Investor, without charge, (i) copies of any correspondence from the SEC or the Staff to the Company or its representatives relating to each Registration Statement, provided that such correspondence shall not contain any material, non-public information regarding the Company or any of its Subsidiaries (as defined in the Securities Purchase Agreement), (ii) after the same is prepared and filed with the SEC, one (1) copy of each Registration Statement and any amendment(s) and supplement(s) thereto, including, without limitation, financial statements and schedules, all documents incorporated therein by reference, if requested by an Investor, and all exhibits and (iii) upon the effectiveness of each Registration Statement, one (1) copy of the prospectus included in such Registration Statement and all amendments and supplements thereto. The Company shall reasonably cooperate with Legal Counsel and legal counsel for each Investor in performing the Company’s obligations pursuant to this Section 3.

(d) The Company shall promptly furnish to each Investor whose Registrable Securities are included in any Registration Statement, without charge, (i) after the same is prepared and filed with the SEC, at least one (1) copy of each Registration Statement and any amendment(s) and supplement(s) thereto, including, without limitation, financial statements and schedules, all documents incorporated therein by reference, if requested by an Investor, all exhibits and each preliminary prospectus, (ii) upon the effectiveness of each Registration Statement, ten (10) copies of the prospectus included in such Registration Statement and all amendments and supplements thereto (or such other number of copies as such Investor may reasonably request from time to time) and (iii) such other documents, including, without limitation, copies of any preliminary or final prospectus, as such Investor may reasonably request from time to time in order to facilitate the disposition of the Registrable Securities owned by such Investor.

(e) The Company shall use its best efforts to (i) register and qualify, unless an exemption from registration and qualification applies, the resale by Investors of the Registrable Securities covered by a Registration Statement under such other securities or “blue sky” laws of all applicable jurisdictions in the United States, (ii) prepare and file in those jurisdictions, such amendments (including, without limitation, post-effective amendments) and supplements to such registrations and qualifications as may be necessary to maintain the effectiveness thereof during the Registration Period, (iii) take such other actions as may be necessary to maintain such registrations and qualifications in effect at all times during the Registration Period, and (iv) take all other actions reasonably necessary or advisable to qualify the Registrable Securities for sale in such jurisdictions; provided, however, the Company shall not be required in connection therewith or as a condition thereto to (x) qualify to do business in any jurisdiction where it would not otherwise be required to qualify but for this Section 3(e), (y) subject itself to general taxation in any such jurisdiction, or (z) file a general consent to service of process in any such jurisdiction. The Company shall promptly notify Legal Counsel, legal counsel for each Investor and each Investor who holds Registrable Securities of the receipt by the Company of any notification with respect to the suspension of the registration or qualification of any of the Registrable Securities for sale under the securities or “blue sky” laws of any jurisdiction in the United States or its receipt of actual notice of the initiation or threatening of any proceeding for such purpose.

(f) The Company shall notify Legal Counsel, legal counsel for each Investor and each Investor in writing of the happening of any event, as promptly as practicable after becoming aware of such event, as a result of which the prospectus included in a Registration Statement, as then in effect, may include an untrue statement of a material fact or omission to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading (provided that in no event shall such notice contain any material, non-public information regarding the Company or any of its Subsidiaries), and, subject to Section 3(r), promptly prepare a supplement or amendment to such Registration Statement and such prospectus contained therein to correct such untrue statement or omission and deliver ten (10) copies of such supplement or amendment to Legal Counsel, legal counsel for each Investor and each Investor (or such other number of copies as Legal Counsel, legal counsel for each Investor or such Investor may reasonably request). The Company shall also promptly notify Legal Counsel, legal counsel for each Investor and each Investor in writing (i) when a prospectus or any prospectus supplement or post-effective amendment has been filed, when a Registration Statement or any post-effective amendment has become effective (notification of such effectiveness shall be delivered to Legal Counsel, legal counsel for each Investor and each Investor by e-mail on the same day of such effectiveness and by overnight mail), and when the Company receives written notice from the SEC that a Registration Statement or any post-effective amendment will be reviewed by the SEC, (ii) of any request by the SEC for amendments or supplements to a Registration Statement or related prospectus or related information, (iii) of the Company's reasonable determination that a post-effective amendment to a Registration Statement would be appropriate; and (iv) of the receipt of any request by the SEC or any other federal or state governmental authority for any additional information relating to the Registration Statement or any amendment or supplement thereto or any related prospectus. The Company shall respond as promptly as practicable to any comments received from the SEC with respect to each Registration Statement or any amendment thereto (it being understood and agreed that the Company's response to any such comments shall be delivered to the SEC no later than fifteen (15) Business Days after the receipt thereof).

(g) The Company shall (i) use its best efforts to prevent the issuance of any stop order or other suspension of effectiveness of each Registration Statement or the use of any prospectus contained therein, or the suspension of the qualification, or the loss of an exemption from qualification, of any of the Registrable Securities for sale in any jurisdiction and, if such an order or suspension is issued, to obtain the withdrawal of such order or suspension at the earliest possible moment and (ii) notify Legal Counsel, legal counsel for each Investor and each Investor who holds Registrable Securities of the issuance of such order and the resolution thereof or its receipt of actual notice of the initiation or threat of any proceeding for such purpose.

(h) If any Investor may be required under applicable securities law to be described in any Registration Statement as an underwriter and such Investor consents to so being named an underwriter, at the request of any Investor, the Company shall furnish to such Investor, on the date of the effectiveness of such Registration Statement and thereafter from time to time on such dates as an Investor may reasonably request (i) a letter, dated such date, from the Company's independent certified public accountants in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the Investors, and (ii) an opinion, dated as of such date, of counsel representing the Company for purposes of such Registration Statement, in form, scope and substance as is customarily given in an underwritten public offering, addressed to the Investors.

(i) If any Investor may be required under applicable securities law to be described in any Registration Statement as an underwriter and such Investor consents to so being named an underwriter, upon the written request of such Investor, the Company shall make available for inspection by (i) such Investor, (ii) legal counsel for such Investor and (iii) one (1) firm of accountants or other agents retained by such Investor (collectively, the "**Inspectors**"), all pertinent financial and other records, and pertinent corporate documents and properties of the Company (collectively, the "**Records**"), as shall be reasonably deemed necessary by each Inspector, and cause the Company's officers, directors and employees to supply all information which any Inspector may reasonably request; provided, however, each Inspector shall agree in writing to hold in strict confidence and not to make any disclosure (except to such Investor) or use of any Record or other information which the Company's board of directors determines in good faith to be confidential, and of which determination the Inspectors are so notified, unless (1) the disclosure of such Records is necessary to avoid or correct a misstatement or omission in any Registration Statement or is otherwise required under the 1933 Act, (2) the release of such Records is ordered pursuant to a final, non-appealable subpoena or order from a court or government body of competent jurisdiction, or (3) the information in such Records has been made generally available to the public other than by disclosure in violation of this Agreement or any other Transaction Document (as defined in the Securities Purchase Agreement). Such Investor agrees that it shall, upon learning that disclosure of such Records is sought in or by a court or governmental body of competent jurisdiction or through other means, give prompt notice to the Company and allow the Company, at its expense, to undertake appropriate action to prevent disclosure of, or to obtain a protective order for, the Records deemed confidential. Nothing herein (or in any other confidentiality agreement between the Company and such Investor, if any) shall be deemed to limit any Investor's ability to sell Registrable Securities in a manner which is otherwise consistent with applicable laws and regulations.

(j) The Company shall hold in confidence and not make any disclosure of information concerning an Investor provided to the Company unless (i) disclosure of such information is necessary to comply with federal or state securities laws, (ii) the disclosure of such information is necessary to avoid or correct a misstatement or omission in any Registration Statement or is otherwise required to be disclosed in such Registration Statement pursuant to the 1933 Act, (iii) the release of such information is ordered pursuant to a subpoena or other final, non-appealable order from a court or governmental body of competent jurisdiction, or (iv) such information has been made generally available to the public other than by disclosure in violation of this Agreement or any other Transaction Document. The Company agrees that it shall, upon learning that disclosure of such information concerning an Investor is sought in or by a court or governmental body of competent jurisdiction or through other means, give prompt written notice to such Investor and allow such Investor, at such Investor's expense, to undertake appropriate action to prevent disclosure of, or to obtain a protective order for, such information.

(k) Without limiting any obligation of the Company under the Securities Purchase Agreement, the Company shall use its best efforts either to (i) cause all of the Registrable Securities covered by each Registration Statement to be listed on each securities exchange on which securities of the same class or series issued by the Company are then listed, if any, if the listing of such Registrable Securities is then permitted under the rules of such exchange, (ii) secure designation and quotation of all of the Registrable Securities covered by each Registration Statement on an Eligible Market (as defined in the Securities Purchase Agreement), or (iii) if, despite the Company's best efforts to satisfy the preceding clauses (i) or (ii) the Company is unsuccessful in satisfying the preceding clauses (i) or (ii), without limiting the generality of the foregoing, to use its best efforts to arrange for at least two market makers to register with the Financial Industry Regulatory Authority ("FINRA") as such with respect to such Registrable Securities. In addition, the Company shall cooperate with each Investor and any broker or dealer through which any such Investor proposes to sell its Registrable Securities in effecting a filing with FINRA pursuant to FINRA Rule 5110 as requested by such Investor. The Company shall pay all fees and expenses in connection with satisfying its obligations under this Section 3(k).

(l) The Company shall cooperate with the Investors who hold Registrable Securities being offered and, to the extent applicable, facilitate the timely preparation and delivery of certificates (not bearing any restrictive legend) representing the Registrable Securities to be offered pursuant to a Registration Statement and enable such certificates to be in such denominations or amounts (as the case may be) as the Investors may reasonably request from time to time and registered in such names as the Investors may request.

(m) If requested by an Investor, the Company shall as soon as practicable after receipt of notice from such Investor and subject to Section 3(r) hereof, (i) incorporate in a prospectus supplement or post-effective amendment such information as an Investor reasonably requests to be included therein relating to the sale and distribution of Registrable Securities, including, without limitation, information with respect to the number of Registrable Securities being offered or sold, the purchase price being paid therefor and any other terms of the offering of the Registrable Securities to be sold in such offering; (ii) make all required filings of such prospectus supplement or post-effective amendment after being notified of the matters to be incorporated in such prospectus supplement or post-effective amendment; and (iii) supplement or make amendments to any Registration Statement or prospectus contained therein if reasonably requested by an Investor holding any Registrable Securities.

(n) The Company shall use its best efforts to cause the Registrable Securities covered by a Registration Statement to be registered with or approved by such other governmental agencies or authorities as may be necessary to consummate the disposition of such Registrable Securities.

(o) The Company shall make generally available to its security holders as soon as practical, but not later than ninety (90) days after the close of the period covered thereby, an earnings statement (in form complying with, and in the manner provided by, the provisions of Rule 158 under the 1933 Act) covering a twelve-month period beginning not later than the first day of the Company's fiscal quarter next following the applicable Effective Date of each Registration Statement.

(p) The Company shall otherwise use its best efforts to comply with all applicable rules and regulations of the SEC in connection with any registration hereunder.

(q) Within one (1) Business Day after a Registration Statement which covers Registrable Securities is declared effective by the SEC, the Company shall deliver, and shall cause legal counsel for the Company to deliver, to the transfer agent for such Registrable Securities (with copies to the Investors whose Registrable Securities are included in such Registration Statement) confirmation that such Registration Statement has been declared effective by the SEC in the form attached hereto as **Exhibit A**.

(r) Notwithstanding anything to the contrary herein (but subject to the last sentence of this Section 3(r)), at any time after the Effective Date of a particular Registration Statement, the Company may delay the disclosure of material, non-public information concerning the Company or any of its Subsidiaries the disclosure of which at the time is not, in the good faith opinion of the board of directors of the Company, in the best interest of the Company and, in the opinion of counsel to the Company, otherwise required (a "**Grace Period**"), provided that the Company shall promptly notify the Investors in writing of the (i) existence of material, non-public information giving rise to a Grace Period (provided that in each such notice the Company shall not disclose the content of such material, non-public information to any of the Investors) and the date on which such Grace Period will begin and (ii) date on which such Grace Period ends, provided further that (I) no Grace Period shall exceed twenty (20) consecutive days and during any three hundred sixty five (365) day period all such Grace Periods shall not exceed an aggregate of ninety (90) days, and (II) the first day of any Grace Period must be at least five (5) Trading Days after the last day of any prior Grace Period (each, an "**Allowable Grace Period**"). For purposes of determining the length of a Grace Period above, such Grace Period shall begin on and include the date the Investors receive the notice referred to in clause (i) above and shall end on and include the later of the date the Investors receive the notice referred to in clause (ii) above and the date referred to in such notice. The provisions of Section 3(g) hereof shall not be applicable during the period of any Allowable Grace Period. Upon expiration of each Grace Period, the Company shall again be bound by the first sentence of Section 3(f) with respect to the information giving rise thereto unless such material, non-public information is no longer applicable. Notwithstanding anything to the contrary contained in this Section 3(r), the Company shall cause its transfer agent to deliver unlegended shares of Common Stock to a transferee of an Investor in accordance with the terms of the Securities Purchase Agreement in connection with any sale of Registrable Securities with respect to which such Investor has entered into a contract for sale, and delivered a copy of the prospectus included as part of the particular Registration Statement to the extent applicable, prior to such Investor's receipt of the notice of a Grace Period and for which the Investor has not yet settled.

(s) The Company shall take all other reasonable actions necessary to expedite and facilitate disposition by each Investors of its Registrable Securities pursuant to each Registration Statement.

(t) Neither the Company nor any Subsidiary or affiliate thereof shall identify any Investor as an underwriter in any public disclosure or filing with the SEC, the Principal Market or any Eligible Market (as defined in the Securities Purchase Agreement) and any Buyer being deemed an underwriter by the SEC shall not relieve the Company of any obligations it has under this Agreement or any other Transaction Document (as defined in the Securities Purchase Agreement); provided, however, that the foregoing shall not prohibit the Company from including the disclosure found in the "Plan of Distribution" section attached hereto as Exhibit B in the Registration Statement.

(u) 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 Buyers in this Agreement or otherwise conflicts with the provisions hereof.

4. Obligations of the Investors.

(a) At least five (5) Business Days prior to the first anticipated filing date of each Registration Statement, the Company shall notify each Investor in writing of the information the Company requires from each such Investor with respect to such Registration Statement. It shall be a condition precedent to the obligations of the Company to complete the registration pursuant to this Agreement with respect to the Registrable Securities of a particular Investor that such Investor shall furnish to the Company such information regarding itself, the Registrable Securities held by it and the intended method of disposition of the Registrable Securities held by it, as shall be reasonably required to effect and maintain the effectiveness of the registration of such Registrable Securities and shall execute such documents in connection with such registration as the Company may reasonably request.

(b) Each Investor, by such Investor's acceptance of the Registrable Securities, agrees to cooperate with the Company as reasonably requested by the Company in connection with the preparation and filing of each Registration Statement hereunder, unless such Investor has notified the Company in writing of such Investor's election to exclude all of such Investor's Registrable Securities from such Registration Statement.

(c) Each Investor agrees that, upon receipt of any notice from the Company of the happening of any event of the kind described in Section 3(g) or the first sentence of 3(f), such Investor will immediately discontinue disposition of Registrable Securities pursuant to any Registration Statement(s) covering such Registrable Securities until such Investor's receipt of the copies of the supplemented or amended prospectus contemplated by Section 3(g) or the first sentence of Section 3(f) or receipt of notice that no supplement or amendment is required. Notwithstanding anything to the contrary in this Section 4(c), the Company shall cause its transfer agent to deliver unlegended shares of Common Stock to a transferee of an Investor in accordance with the terms of the Securities Purchase Agreement in connection with any sale of Registrable Securities with respect to which such Investor has entered into a contract for sale prior to the Investor's receipt of a notice from the Company of the happening of any event of the kind described in Section 3(g) or the first sentence of Section 3(f) and for which such Investor has not yet settled.

5. Expenses of Registration.

All reasonable expenses, other than underwriting discounts and commissions, incurred in connection with registrations, filings or qualifications pursuant to Sections 2 and 3, including, without limitation, all registration, listing and qualifications fees, printers and accounting fees, FINRA filing fees (if any) and fees and disbursements of counsel for the Company shall be paid by the Company. The Company shall reimburse Legal Counsel for its fees and disbursements in connection with registration, filing or qualification pursuant to Sections 2 and 3 of this Agreement which amount shall be limited to \$10,000 for each such registration, filing or qualification.

6. Indemnification.

(a) To the fullest extent permitted by law, the Company will, and hereby does, indemnify, hold harmless and defend each Investor and each of its directors, officers, shareholders, members, partners, employees, agents, advisors, representatives (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding the lack of such title or any other title) and each Person, if any, who controls such Investor within the meaning of the 1933 Act or the 1934 Act and each of the directors, officers, shareholders, members, partners, employees, agents, advisors, representatives (and any other Persons with a functionally equivalent role of a Person holding such titles notwithstanding the lack of such title or any other title) of such controlling Persons (each, an “**Indemnified Person**”), against any losses, obligations, claims, damages, liabilities, contingencies, judgments, fines, penalties, charges, costs (including, without limitation, court costs, reasonable attorneys’ fees and costs of defense and investigation), amounts paid in settlement or expenses, joint or several, (collectively, “**Claims**”) incurred in investigating, preparing or defending any action, claim, suit, inquiry, proceeding, investigation or appeal taken from the foregoing by or before any court or governmental, administrative or other regulatory agency, body or the SEC, whether pending or threatened, whether or not an Indemnified Person is or may be a party thereto (“**Indemnified Damages**”), to which any of them may become subject insofar as such Claims (or actions or proceedings, whether commenced or threatened, in respect thereof) arise out of or are based upon: (i) any untrue statement or alleged untrue statement of a material fact in a Registration Statement or any post-effective amendment thereto or in any filing made in connection with the qualification of the offering under the securities or other “blue sky” laws of any jurisdiction in which Registrable Securities are offered (“**Blue Sky Filing**”), or the omission or alleged omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (ii) any untrue statement or alleged untrue statement of a material fact contained in any preliminary prospectus if used prior to the effective date of such Registration Statement, or contained in the final prospectus (as amended or supplemented, if the Company files any amendment thereof or supplement thereto with the SEC) or the omission or alleged omission to state therein any material fact necessary to make the statements made therein, in light of the circumstances under which the statements therein were made, not misleading or (iii) any violation or alleged violation by the Company of the 1933 Act, the 1934 Act, any other law, including, without limitation, any state securities law, or any rule or regulation thereunder relating to the offer or sale of the Registrable Securities pursuant to a Registration Statement or (iv) any violation of this Agreement (the matters in the foregoing clauses (i) through (iv) being, collectively, “**Violations**”). Subject to Section 6(c), the Company shall reimburse the Indemnified Persons, promptly as such expenses are incurred and are due and payable, for any legal fees or other reasonable expenses incurred by them in connection with investigating or defending any such Claim. Notwithstanding anything to the contrary contained herein, the indemnification agreement contained in this Section 6(a): (i) shall not apply to a Claim by an Indemnified Person arising out of or based upon a Violation which occurs in reliance upon and in conformity with information furnished in writing to the Company by such Indemnified Person for such Indemnified Person expressly for use in connection with the preparation of such Registration Statement or any such amendment thereof or supplement thereto, if such prospectus was timely made available by the Company pursuant to Section 3(d); and (ii) shall not apply to amounts paid in settlement of any Claim if such settlement is effected without the prior written consent of the Company, which consent shall not be unreasonably withheld or delayed. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of the Indemnified Person and shall survive the transfer of any of the Registrable Securities by any of the Investors pursuant to Section 9.

(b) In connection with any Registration Statement in which an Investor is participating, such Investor agrees to severally and not jointly indemnify, hold harmless and defend, to the same extent and in the same manner as is set forth in Section 6(a), the Company, each of its directors, each of its officers who signs the Registration Statement and each Person, if any, who controls the Company within the meaning of the 1933 Act or the 1934 Act (each, an “**Indemnified Party**”), against any Claim or Indemnified Damages to which any of them may become subject, under the 1933 Act, the 1934 Act or otherwise, insofar as such Claim or Indemnified Damages arise out of or are based upon any Violation, in each case, to the extent, and only to the extent, that such Violation occurs in reliance upon and in conformity with written information furnished to the Company by such Investor expressly for use in connection with such Registration Statement; and, subject to Section 6(c) and the below provisos in this Section 6(b), such Investor will reimburse an Indemnified Party any legal or other expenses reasonably incurred by such Indemnified Party in connection with investigating or defending any such Claim; provided, however, the indemnity agreement contained in this Section 6(b) and the agreement with respect to contribution contained in Section 7 shall not apply to amounts paid in settlement of any Claim if such settlement is effected without the prior written consent of such Investor, which consent shall not be unreasonably withheld or delayed, provided further that such Investor shall be liable under this Section 6(b) for only that amount of a Claim or Indemnified Damages as does not exceed the net proceeds to such Investor as a result of the applicable sale of Registrable Securities pursuant to such Registration Statement. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of such Indemnified Party and shall survive the transfer of any of the Registrable Securities by any of the Investors pursuant to Section 9.

(c) Promptly after receipt by an Indemnified Person or Indemnified Party (as the case may be) under this Section 6 of notice of the commencement of any action or proceeding (including, without limitation, any governmental action or proceeding) involving a Claim, such Indemnified Person or Indemnified Party (as the case may be) shall, if a Claim in respect thereof is to be made against any indemnifying party under this Section 6, deliver to the indemnifying party a written notice of the commencement thereof, and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume control of the defense thereof with counsel mutually satisfactory to the indemnifying party and the Indemnified Person or the Indemnified Party (as the case may be); provided, however, an Indemnified Person or Indemnified Party (as the case may be) shall have the right to retain its own counsel with the fees and expenses of such counsel to be paid by the indemnifying party if: (i) the indemnifying party has agreed in writing to pay such fees and expenses; (ii) the indemnifying party shall have failed promptly to assume the defense of such Claim and to employ counsel reasonably satisfactory to such Indemnified Person or Indemnified Party (as the case may be) in any such Claim; or (iii) the named parties to any such Claim (including, without limitation, any impleaded parties) include both such Indemnified Person or Indemnified Party (as the case may be) and the indemnifying party, and such Indemnified Person or such Indemnified Party (as the case may be) shall have been advised by counsel that a conflict of interest is likely to exist if the same counsel were to represent such Indemnified Person or such Indemnified Party and the indemnifying party (in which case, if such Indemnified Person or such Indemnified Party (as the case may be) notifies the indemnifying party in writing that it elects to employ separate counsel at the expense of the indemnifying party, then the indemnifying party shall not have the right to assume the defense thereof and such counsel shall be at the expense of the indemnifying party), provided further that in the case of clause (iii) above the indemnifying party shall not be responsible for the reasonable fees and expenses of more than one (1) separate legal counsel for such Indemnified Person or Indemnified Party (as the case may be). The Indemnified Party or Indemnified Person (as the case may be) shall reasonably cooperate with the indemnifying party in connection with any negotiation or defense of any such action or Claim by the indemnifying party and shall furnish to the indemnifying party all information reasonably available to the Indemnified Party or Indemnified Person (as the case may be) which relates to such action or Claim. The indemnifying party shall keep the Indemnified Party or Indemnified Person (as the case may be) reasonably apprised at all times as to the status of the defense or any settlement negotiations with respect thereto. No indemnifying party shall be liable for any settlement of any action, claim or proceeding effected without its prior written consent; provided, however, the indemnifying party shall not unreasonably withhold, delay or condition its consent. No indemnifying party shall, without the prior written consent of the Indemnified Party or Indemnified Person (as the case may be), consent to entry of any judgment or enter into any settlement or other compromise which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party or Indemnified Person (as the case may be) of a release from all liability in respect to such Claim or litigation, and such settlement shall not include any admission as to fault on the part of the Indemnified Party. Following indemnification as provided for hereunder, the indemnifying party shall be subrogated to all rights of the Indemnified Party or Indemnified Person (as the case may be) with respect to all third parties, firms or corporations relating to the matter for which indemnification has been made. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action shall not relieve such indemnifying party of any liability to the Indemnified Person or Indemnified Party (as the case may be) under this Section 6, except to the extent that the indemnifying party is materially and adversely prejudiced in its ability to defend such action.

(d) The indemnification required by this Section 6 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 Indemnified Damages are incurred.

(e) The indemnity and contribution agreements contained herein shall be in addition to (i) any cause of action or similar right of the Indemnified Party or Indemnified Person against the indemnifying party or others, and (ii) any liabilities the indemnifying party may be subject to pursuant to the law.

7. Contribution.

To the extent any indemnification by an indemnifying party is prohibited or limited by law, the indemnifying party agrees to make the maximum contribution with respect to any amounts for which it would otherwise be liable under Section 6 to the fullest extent permitted by law; provided, however: (i) no contribution shall be made under circumstances where the maker would not have been liable for indemnification under the fault standards set forth in Section 6 of this Agreement, (ii) no Person involved in the sale of Registrable Securities which Person is guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the 1933 Act) in connection with such sale shall be entitled to contribution from any Person involved in such sale of Registrable Securities who was not guilty of fraudulent misrepresentation; and (iii) contribution by any seller of Registrable Securities shall be limited in amount to the amount of net proceeds received by such seller from the applicable sale of such Registrable Securities pursuant to such Registration Statement. Notwithstanding the provisions of this Section 7, no Investor shall be required to contribute, in the aggregate, any amount in excess of the amount by which the net proceeds actually received by such Investor from the applicable sale of the Registrable Securities subject to the Claim exceeds the amount of any damages that such Investor has otherwise been required to pay, or would otherwise be required to pay under Section 6(b), by reason of such untrue or alleged untrue statement or omission or alleged omission.

8. Reports Under the 1934 Act.

With a view to making available to the Investors the benefits of Rule 144, the Company agrees to:

(a) make and keep public information available, as those terms are understood and defined in Rule 144;

(b) file with the SEC in a timely manner all reports and other documents required of the Company under the 1933 Act and the 1934 Act so long as the Company remains subject to such requirements (it being understood and agreed that nothing herein shall limit any obligations of the Company under the Securities Purchase Agreement) and the filing of such reports and other documents is required for the applicable provisions of Rule 144; and

(c) furnish to each Investor so long as such Investor owns Registrable Securities, promptly upon request, (i) a written statement by the Company, if true, that it has complied with the reporting, submission and posting requirements of Rule 144, the 1933 Act and the 1934 Act, (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company with the SEC if such reports are not publicly available via EDGAR, and (iii) such other information as may be reasonably requested to permit the Investors to sell such securities pursuant to Rule 144 without registration.

9. Assignment of Registration Rights.

All or any portion of the rights under this Agreement shall be automatically assignable by each Investor to any transferee or assignee (as the case may be) of all or any portion of such Investor's Registrable Securities or Warrants if: (i) such Investor agrees in writing with such transferee or assignee (as the case may be) to assign all or any portion of such rights, and a copy of such agreement is furnished to the Company within a reasonable time after such transfer or assignment (as the case may be); (ii) the Company is, within a reasonable time after such transfer or assignment (as the case may be), furnished with written notice of (a) the name and address of such transferee or assignee (as the case may be), and (b) the securities with respect to which such registration rights are being transferred or assigned (as the case may be); (iii) immediately following such transfer or assignment (as the case may be) the further disposition of such securities by such transferee or assignee (as the case may be) is restricted under the 1933 Act or applicable state securities laws if so required; (iv) at or before the time the Company receives the written notice contemplated by clause (ii) of this sentence such transferee or assignee (as the case may be) agrees in writing with the Company to be bound by all of the provisions contained herein; (v) such transfer or assignment (as the case may be) shall have been made in accordance with the applicable requirements of the Securities Purchase Agreement and the Warrants (as the case may be); and (vi) such transfer or assignment (as the case may be) shall have been conducted in accordance with all applicable federal and state securities laws.

10. Amendment of Registration Rights.

Provisions of this Agreement may be amended and the observance thereof may be waived (either generally or in a particular instance and either retroactively or prospectively), only with the written consent of the Company and the Required Holders; provided that any such amendment or waiver that complies with the foregoing, but that disproportionately, materially and adversely affects the rights and obligations of any Investor relative to the comparable rights and obligations of the other Investors shall require the prior written consent of such adversely affected Investor. Any amendment or waiver effected in accordance with this Section 10 shall be binding upon each Investor and the Company, provided that no such amendment shall be effective to the extent that it (1) applies to less than all of the holders of Registrable Securities or (2) imposes any obligation or liability on any Investor without such Investor's prior written consent (which may be granted or withheld in such Investor's sole discretion). No waiver shall be effective unless it is in writing and signed by an authorized representative of the waiving party. 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 (other than the reimbursement of legal fees) also is offered to all of the parties to this Agreement.

11. Miscellaneous.

(a) Solely for purposes of this Agreement, a Person is deemed to be a holder of Registrable Securities whenever such Person owns, or is deemed to own, of record such Registrable Securities. If the Company receives conflicting instructions, notices or elections from two or more Persons with respect to the same Registrable Securities, the Company shall act upon the basis of instructions, notice or election received from such record owner of such Registrable Securities.

(b) Any notices, consents, waivers or other communications required or permitted to be given under the terms of this Agreement must be in writing and will be deemed to have been delivered: (i) upon receipt, when delivered personally; (ii) upon receipt, when sent by electronic mail (provided that such sent email is kept on file (whether electronically or otherwise) by the sending party and the sending party does not receive an automatically generated message from the recipient's email server that such e-mail could not be delivered to such recipient); or (iii) one (1) Business Day after deposit with a nationally recognized overnight delivery service with next day delivery specified, in each case, properly addressed to the party to receive the same. The mailing addresses and e-mail addresses for such communications shall be:

If to the Company:

Marker Therapeutics, Inc..
2450 Holcombe Blvd
Suite BCM-A, MS: BCM251
Houston, Texas 77021
Telephone: (713) 591-8100
Attention: Chief Executive Officer
E-Mail: jvera@markertherapeutics.com

With a copy (for informational purposes only) to:

Shumaker, Loop & Kendrick, LLP
101 East Kennedy Boulevard, Suite 2800
Tampa, FL 33602
Telephone: (813) 227-2325
Attention: Julio C. Esquivel
E-Mail: Jesquivel@shumaker.com

If to the Transfer Agent:

EQ Shareowner Services
PO Box 64874
St Paul MN 55164-0874
Telephone: (929) 625-4523
Attention: Maritza Vicole
Senior Relationship Manager
Relationship Management
E-Mmail: admin11@equiniti.com

If to Legal Counsel:

Kelley Drye & Warren LLP
3 World Trade Center
175 Greenwich Street
New York, NY 10007
Telephone: (212) 808-7540
Attention: Michael A. Adelstein, Esq.
E-Mail: madelstein@kelleydrye.com

If to a Buyer, to its mailing address and/or email address set forth on the Schedule of Buyers attached to the Securities Purchase Agreement, with copies to such Buyer's representatives as set forth on the Schedule of Buyers, or to such other mailing address and/or email address and/or to the attention of such other Person as the recipient party has specified by written notice given to each other party five (5) days prior to the effectiveness of such change, provided that Kelley Drye & Warren LLP shall only be provided notices sent to the lead investor. Written confirmation of receipt (A) given by the recipient of such notice, consent, waiver or other communication, (B) mechanically or electronically generated by the sender's e-mail containing the time, date and recipient's e-mail or (C) provided by a courier or overnight courier service shall be rebuttable evidence of personal service, receipt by e-mail or receipt from a nationally recognized overnight delivery service in accordance with clause (i), (ii) or (iii) above, respectively.

(c) Failure of any party to exercise any right or remedy under this Agreement or otherwise, or delay by a party in exercising such right or remedy, shall not operate as a waiver thereof. The Company and each Investor acknowledge and agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that each party hereto shall be entitled to an injunction or injunctions to prevent or cure breaches of the provisions of this Agreement by any other party hereto and to enforce specifically the terms and provisions hereof (without the necessity of showing economic loss and without any bond or other security being required), this being in addition to any other remedy to which any party may be entitled by law or equity.

(d) All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be governed by the internal laws of the State of New York, without giving effect to any provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of New York. Each party 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. 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 to such party at the address for such notices to it under this Agreement 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 manner permitted by law. EACH PARTY 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 HEREWITH OR ARISING OUT OF THIS AGREEMENT OR ANY TRANSACTION CONTEMPLATED HEREBY.

(e) If any provision of this Agreement 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 Agreement so long as this Agreement 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).

(f) This Agreement, the other Transaction Documents, the schedules and exhibits attached hereto and thereto and the instruments referenced herein and therein constitute the entire agreement among the parties hereto and thereto solely with respect to the subject matter hereof and thereof. There are no restrictions, promises, warranties or undertakings, other than those set forth or referred to herein and therein. This Agreement, the other Transaction Documents, the schedules and exhibits attached hereto and thereto and the instruments referenced herein and therein supersede all prior agreements and understandings among the parties hereto solely with respect to the subject matter hereof and thereof; provided, however, nothing contained in this Agreement or any other Transaction Document shall (or shall be deemed to) (i) have any effect on any agreements any Investor has entered into with the Company or any of its Subsidiaries prior to the date hereof with respect to any prior investment made by such Investor in the Company, (ii) waive, alter, modify or amend in any respect any obligations of the Company or any of its Subsidiaries or any rights of or benefits to any Investor or any other Person in any agreement entered into prior to the date hereof between or among the Company and/or any of its Subsidiaries and any Investor and all such agreements shall continue in full force and effect or (iii) limit any obligations of the Company under any of the other Transaction Documents.

(g) Subject to compliance with Section 9 (if applicable), this Agreement shall inure to the benefit of and be binding upon the permitted successors and assigns of each of the parties hereto. This Agreement is not for the benefit of, nor may any provision hereof be enforced by, any Person, other than the parties hereto, their respective permitted successors and assigns and the Persons referred to in Sections 6 and 7 hereof.

(h) The headings in this Agreement are for convenience of reference only and shall not limit or otherwise affect the meaning hereof. 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 Agreement instead of just the provision in which they are found.

(i) This Agreement may be executed in two or more identical counterparts, each of which shall be deemed an original, but all of which 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. In the event that any signature is delivered by facsimile transmission or by an email which contains a portable document format (.pdf) file of an executed signature page, such signature page 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 signature page were an original thereof.

(j) Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents as any other party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

(k) The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent and no rules of strict construction will be applied against any party. Notwithstanding anything to the contrary set forth in Section 10, terms used in this Agreement 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 each Investor.

(l) All consents and other determinations required to be made by the Investors pursuant to this Agreement shall be made, unless otherwise specified in this Agreement, by the Required Holders, determined as if all of the outstanding Warrants then held by the Investors have been exercised for Registrable Securities without regard to any limitations on exercise of the Warrants then held by Investors.

(m) This Agreement is intended for the benefit of the parties hereto and their respective permitted successors and assigns, and is not for the benefit of, nor may any provision hereof be enforced by, any other Person.

(n) The obligations of each Investor under this Agreement and the other Transaction Documents are several and not joint with the obligations of any other Investor, and no Investor shall be responsible in any way for the performance of the obligations of any other Investor under this Agreement or any other Transaction Document. Nothing contained herein or in any other Transaction Document, and no action taken by any Investor pursuant hereto or thereto, shall be deemed to constitute the Investors as, and the Company acknowledges that the Investors do not so constitute, a partnership, an association, a joint venture or any other kind of group or entity, or create a presumption that the Investors are in any way acting in concert or as a group or entity with respect to such obligations or the transactions contemplated by the Transaction Documents or any matters, and the Company acknowledges that the Investors are not acting in concert or as a group, and the Company shall not assert any such claim, with respect to such obligations or the transactions contemplated by this Agreement or any of the other the Transaction Documents. Each Investor shall be entitled to independently protect and enforce its rights, including, without limitation, the rights arising out of this Agreement or out of any other Transaction Documents, and it shall not be necessary for any other Investor 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 herein was solely in the control of the Company, not the action or decision of any Investor, and was done solely for the convenience of the Company and not because it was required or requested to do so by any Investor. It is expressly understood and agreed that each provision contained in this Agreement and in each other Transaction Document is between the Company and an Investor, solely, and not between the Company and the Investors collectively and not between and among Investors.

[signature page follows]

IN WITNESS WHEREOF, each Buyer and the Company have caused their respective signature page to this Registration Rights Agreement to be duly executed as of the date first written above.

COMPANY:

MARKER THERAPEUTICS, INC.

By: _____
Name:
Title:

IN WITNESS WHEREOF, each Buyer and the Company have caused their respective signature page to this Registration Rights Agreement to be duly executed as of the date first written above.

BUYER:

Name of Buyer: _____

Signature of Authorized Signatory of Buyer: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

**FORM OF NOTICE OF EFFECTIVENESS
OF REGISTRATION STATEMENT**

 Attention: _____

Re: Marker Therapeutics, Inc.

Ladies and Gentlemen:

[We are][I am] counsel to Marker Therapeutics, Inc., a Delaware corporation (the “**Company**”), and have represented the Company in connection with that certain Securities Purchase Agreement (the “**Securities Purchase Agreement**”) entered into by and among the Company and the buyers named therein (collectively, the “**Holder**s”) pursuant to which the Company issued to the Holders certain shares (the “**Common Shares**”) of common stock, \$[] par value, of the Company (the “**Common Stock**”), and warrants exercisable for shares of Common Stock (the “**Warrants**”). Pursuant to the Securities Purchase Agreement, the Company also has entered into a Registration Rights Agreement with the Holders (the “**Registration Rights Agreement**”) pursuant to which the Company agreed, among other things, to register the Registrable Securities (as defined in the Registration Rights Agreement), including the Common Shares and the shares of Common Stock issuable upon exercise of the Warrants, under the Securities Act of 1933, as amended (the “**1933 Act**”). In connection with the Company’s obligations under the Registration Rights Agreement, on _____, 20__, the Company filed a Registration Statement on Form [S-1][S-3] (File No. 333-_____) (the “**Registration Statement**”) with the Securities and Exchange Commission (the “**SEC**”) relating to the Registrable Securities which names each of the Holders as a selling stockholder thereunder.

In connection with the foregoing, [we][I] advise you that [a member of the SEC’s staff has advised [us][me] by telephone that [the SEC has entered an order declaring the Registration Statement effective under the 1933 Act at [ENTER TIME OF EFFECTIVENESS] on [ENTER DATE OF EFFECTIVENESS]] [an order declaring the Registration Statement effective under the 1933 Act at [ENTER TIME OF EFFECTIVENESS] on [ENTER DATE OF EFFECTIVENESS]] has been posted on the web site of the SEC at www.sec.gov] and [we][I] have no knowledge, after a review of information posted on the website of the SEC at <http://www.sec.gov/litigation/stoporders.shtml>, that any stop order suspending its effectiveness has been issued or that any proceedings for that purpose are pending before, or threatened by, the SEC and the Registrable Securities are available for resale under the 1933 Act pursuant to the Registration Statement.

This letter shall serve as our standing opinion to you that the Common Shares and the shares of Common Stock underlying the Warrants are freely transferable by the Holders pursuant to the Registration Statement. You need not require further letters from us to effect any future legend-free issuance or reissuance of such shares of Common Stock to the Holders as contemplated by the Company's Irrevocable Transfer Agent Instructions dated _____, 20__.

Very truly yours,

[ISSUER'S COUNSEL]

By: _____

CC: Michael Adelstein, Kelley Drye & Warren, LLP
[BUYERS]

SELLING STOCKHOLDERS

The shares of common stock being offered by the selling stockholders are those previously issued to the selling stockholders and those issuable to the selling stockholders upon exercise of the warrants. For additional information regarding the issuance of common stock and the warrants, see “Private Placement of Common Shares and Warrants” above. We are registering the shares of common stock in order to permit the selling stockholders to offer the shares for resale from time to time. Except for the ownership of the common stock and the warrants issued pursuant to the Securities Purchase Agreement, the selling stockholders have not had any material relationship with us within the past three years.

The table below lists the selling stockholders and other information regarding the beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder) of the shares of common stock held by each of the selling stockholders. The second column lists the number of shares of common stock beneficially owned by the selling stockholders, based on their respective ownership of shares of common stock and warrants, as of _____, 202_, assuming exercise of the warrants held by each such selling stockholder on that date but taking account of any limitations on exercise set forth therein.

The third column lists the shares of common stock being offered by this prospectus by the selling stockholders and does not take in account any limitations on exercise of the warrants set forth therein.

In accordance with the terms of a registration rights agreement with the holders of the common stock and the warrants, this prospectus generally covers the resale of the sum of (i) the number of shares of common stock issued in connection with the Securities Purchase Agreement and (ii) 100% of the maximum number of shares of common stock issuable upon exercise of the warrants, in each case, determined as if the outstanding warrants were exercised in full (without regard to any limitations on exercise contained therein) as of the trading day immediately preceding the date this registration statement was initially filed with the SEC. Because the exercise price of the warrants may be adjusted, the number of shares that will actually be issued may be more or less than the number of shares being offered by this prospectus. The fourth column assumes the sale of all of the shares offered by the selling stockholders pursuant to this prospectus.

Under the terms of the warrants, a selling stockholder (other than a selling stockholder that has elected in writing upon signing of its purchase agreement not to have the beneficial ownership limitation applicable to the warrant issued to such selling stockholder (as denoted in the footnote of any such selling stockholder below)) may not exercise the warrants to the extent (but only to the extent) such selling stockholder or any of its affiliates would beneficially own a number of shares of our common stock which would exceed 4.99% or 9.99% of the outstanding shares of the Company (as elected by such selling stockholder in writing upon signing of its purchase agreement and denoted in the footnote of any such selling stockholder below). The number of shares in the second column reflects these limitations. The selling stockholders may sell all, some or none of their shares in this offering. See “Plan of Distribution.”

<u>Name of Selling Stockholder</u>	<u>Number of Shares of Common Stock Owned Prior to Offering</u>	<u>Maximum Number of Shares of Common Stock to be Sold Pursuant to this Prospectus</u>	<u>Number of Shares of Common Stock of Owned After Offering</u>
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[BUYERS] (1)

(1) []

PLAN OF DISTRIBUTION

We are registering the shares of common stock previously issued and the shares of common stock issuable upon exercise of the warrants to permit the resale of these shares of common stock by the holders of the common stock and warrants from time to time after the date of this prospectus. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of common stock, although we will receive the exercise price of any Warrants not exercised by the selling stockholders on a cashless exercise basis. We will bear all fees and expenses incident to our obligation to register the shares of common stock.

The selling stockholders may sell all or a portion of the shares of common stock held by them and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of common stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent's commissions. The shares of common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions, pursuant to one or more of the following methods:

- on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
 - in the over-the-counter market;
 - in transactions otherwise than on these exchanges or systems or in the over-the-counter market;
 - through the writing or settlement of options, whether such options are listed on an options exchange or otherwise;
 - ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
 - block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
 - purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
 - an exchange distribution in accordance with the rules of the applicable exchange;
 - privately negotiated transactions;
 - short sales made after the date the Registration Statement is declared effective by the SEC;
 - broker-dealers may agree with a selling security holder to sell a specified number of such shares at a stipulated price per share;
-

- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares of common stock under Rule 144 promulgated under the Securities Act of 1933, as amended, if available, rather than under this prospectus. In addition, the selling stockholders may transfer the shares of common stock by other means not described in this prospectus. If the selling stockholders effect such transactions by selling shares of common stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the shares of common stock for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). In connection with sales of the shares of common stock or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares of common stock in the course of hedging in positions they assume. The selling stockholders may also sell shares of common stock short and deliver shares of common stock covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholders may also loan or pledge shares of common stock to broker-dealers that in turn may sell such shares.

The selling stockholders may pledge or grant a security interest in some or all of the warrants or shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer and donate the shares of common stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

To the extent required by the Securities Act and the rules and regulations thereunder, the selling stockholders and any broker-dealer participating in the distribution of the shares of common stock may be deemed to be “underwriters” within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of the shares of common stock is made, a prospectus supplement, if required, will be distributed, which will set forth the aggregate amount of shares of common stock being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling stockholders and any discounts, commissions or concessions allowed or re-allowed or paid to broker-dealers.

Under the securities laws of some states, the shares of common stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of common stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that any selling stockholder will sell any or all of the shares of common stock registered pursuant to the registration statement, of which this prospectus forms a part.

The selling stockholders and any other person participating in such distribution will be subject to applicable provisions of the Securities Exchange Act of 1934, as amended, 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 shares of common stock by the selling stockholders and any other participating person. To the extent applicable, Regulation M may also restrict the ability of any person engaged in the distribution of the shares of common stock to engage in market-making activities with respect to the shares of common stock. All of the foregoing may affect the marketability of the shares of common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of common stock.

We will pay all expenses of the registration of the shares of common stock pursuant to the registration rights agreement, estimated to be \$[] in total, including, without limitation, Securities and Exchange Commission filing fees and expenses of compliance with state securities or “blue sky” laws; provided, however, a selling stockholder will pay all underwriting discounts and selling commissions, if any. We will indemnify the selling stockholders against liabilities, including some liabilities under the Securities Act in accordance with the registration rights agreements or the selling stockholders will be entitled to contribution. We may be indemnified by the selling stockholders against civil liabilities, including liabilities under the Securities Act that may arise from any written information furnished to us by the selling stockholder specifically for use in this prospectus, in accordance with the related registration rights agreements or we may be entitled to contribution.

Once sold under the registration statement, of which this prospectus forms a part, the shares of common stock will be freely tradable in the hands of persons other than our affiliates.
