

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

FORM 8-K

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

Date of Report (Date of earliest event reported): **March 13, 2023**

LUCID DIAGNOSTICS INC.

(Exact Name of Registrant as Specified in Charter)

Delaware

(State or Other Jurisdiction
of Incorporation)

001-40901

(Commission
File Number)

82-5488042

(IRS Employer
Identification No.)

360 Madison Avenue, 25th Floor, New York, New York

(Address of Principal Executive Offices)

10017

(Zip Code)

Registrant's telephone number, including area code: **(212) 949-4319**

N/A

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- 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	LUCD	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.

On March 13, 2023, Lucid Diagnostics Inc. (the "Lucid Diagnostics" or the "Company") entered into a securities purchase agreement (the "SPA") with an accredited investor (the "Investor"), for the sale of a Senior Secured Convertible Notes in initial principal amount of up to \$11,111,110 (the "Note"), in a private placement (the "Offering"). The Company expects to consummate the closing for the sale of the Note, which is subject to customary closing conditions, on or about March 21, 2023. The Company will not pay any selling commission to any party in connection with the Offering. The Note will be sold at an original issue discount of 10%.

The Company estimates that the net cash proceeds will be approximately \$9.8 million from the issuance of the Note, after deducting the original issue discount and the estimated expenses of the Offering.

The Investor holds senior secured convertible notes issued by PAVmed Inc. ("PAVmed"), the Company's parent, with an outstanding principal balance of \$32.7 million. For more information, see the Current Report on Form 8-K filed by PAVmed on April 4, 2022.

SPA

The SPA contains certain representations and warranties, covenants and indemnities customary for similar transactions. Under the SPA, the Company also agreed to the following additional covenants:

- During the period through and including the 90th day after the maturity date of the Note (or such later date as is agreed between the parties), the Company may not issue any securities that would cause a breach of the Note, file a registration statement under the Securities Act of 1933, as amended (the “Securities Act”), relating to any securities other than the shares underlying the Notes or the Company’s Series A preferred stock, or issue, offer, sell, grant any option or right to purchase, or otherwise dispose of any equity or equity-linked or related security, any debt, any preferred stock (other than up to \$6,375,000 shares of the Company’s Series A preferred stock) or any purchase rights, subject to certain exceptions, including issuances at a price greater than \$5.00 per share.
- So long as the Note remains outstanding, the Company will not effect or enter an agreement to effect any variable rate transaction.
- The Company will hold a stockholder meeting, by no later than July 31, 2023, to approve resolutions (the “Stockholder Resolutions”) authorizing (i) an increase in the authorized shares of the Company’s common stock from 100 million to 200 million shares, and (ii) the issuance of shares of the Company’s common stock under the Notes for the purposes of compliance with the stockholder approval rules of The Nasdaq Stock Market LLC (“Nasdaq”). The Company will be obligated to continue to seek stockholder approval quarterly until such approval is obtained.

In addition, under the SPA, the Company granted the purchasers in the Offering participation rights in future offerings of any equity or equity-linked or related security, any debt, any preferred stock or any purchase rights, during the three years after the closing (or the date no Notes remain outstanding, if later) in an amount of up to 100% of the securities being sold in such offerings.

Pursuant to the SPA, the Company will enter into a voting agreement (each, a “Voting Agreement”) with its parent company PAVmed Inc. (“PAVmed”), which holds an aggregate of approximately 72% of the Company’s common stock, pursuant to which PAVmed will agree to vote the shares of the Company’s common stock now owned or hereafter acquired by him in favor of the Stockholder Resolutions.

Convertible Note

As noted above, the issuance of the Note is subject to customary closing conditions. The form of Note that is an exhibit to the SPA contains the following terms and conditions, all of which are expected to be included in the Note when issued.

General. The Note will accrue interest at a rate of 7.875% per annum and will mature on the second anniversary of its issuance (the “Maturity Date”), subject to the right of the noteholders to extend the Maturity Date under certain circumstances. The Note is required to be senior to all the Company’s other indebtedness, other than certain permitted indebtedness.

Security. The Note will be secured by all the Company’s existing and future assets (including those of the Company’s significant subsidiaries), pursuant to a security agreement by and between the Company and the Investor (the “Security Agreement”).

Guaranty. The obligations under the Note will be guaranteed by all of the Company’s existing and future subsidiaries, pursuant to a guaranty by and between the Company’s subsidiaries and the Investor (the “Guaranty”).

Voluntary Conversion. All or any portion of the principal amount of the Note, plus accrued and unpaid interest and any late charges thereon, is convertible at any time, in whole or in part, at the noteholder’s option, into shares of the Company’s common stock at an initial fixed conversion price of \$5.00 per share, subject to certain adjustments.

Alternate Conversion. At any time during an Event of Default Redemption Right Period (as defined in the Note), a noteholder may alternatively elect to convert all or any portion of the Notes at an alternate conversion price equal to the lower of: (i) the fixed conversion price then in effect, and (ii) the lowest of 80% of the VWAP of the Company’s common stock as of the trading day immediately preceding the delivery or deemed delivery of the applicable notice of conversion, 80% of the VWAP of the Company’s common stock as of the trading day of the delivery or deemed delivery of the applicable notice of conversion, 80% of the VWAP of the Company’s common stock as of the trading day immediately prior to the time of occurrence of the applicable event of default, and 80% of the average VWAP of the Company’s common stock for each of the two trading days with the lowest VWAP of the Company’s common stock during the ten consecutive trading day period ending and including the trading day immediately prior to the delivery or deemed delivery of the applicable notice of conversion, but in the case of clause (ii), not less than the Floor Price (as defined in the Notes).

Installments. On the date that is six months after the Note’s issuance, on the 1st and 10th trading day of each calendar month thereafter, and on the Maturity Date (each, an “Installment Date”), the Company will make an amortization payment on each Note in an amount equal to the initial principal balance of the Note divided by the total number of such amortization payments (such that the entire initial principal balance will be repaid by the Maturity Date), plus any amounts that have been deferred or accelerated to the applicable Installment Date (as described below), plus all accrued and unpaid interest and any late charges (the “Installment Amount”). Each amortization payment will be satisfied, at the Company’s election, in shares of the Company’s common stock, subject to certain customary equity conditions (including minimum price and volume thresholds) (the “Equity Conditions”), at 100% of the Installment Amount (an “Installment Conversion”) or otherwise (or at the Company’s option, in whole or in part) in cash at 115% of the Installment Amount (an “Installment Redemption”). If the Company effects an Installment Conversion, the Company will convert all or a portion of the Installment Amount into shares of the Company’s common stock at an installment conversion price per share equal to the lower of (i) the fixed conversion price then in effect and (ii) 82.5% of the average VWAP of the Company’s common stock for each of the two trading days with the lowest VWAP of the Company’s common stock during the ten consecutive trading day period ending and including the trading day immediately prior to the applicable Installment Date, but in the case of clause (ii), not less than the Floor Price.

Deferral. A noteholder may, at its election, defer the payment of all or any portion of the Installment Amount due on any Installment Date to another Installment Date.

Acceleration. On any day during the period starting on an Installment Date and ending on the trading day immediately prior to the next Installment Date (the “Installment Period”), a noteholder may, at its election, accelerate the conversion of other Installment Amounts at an acceleration conversion price per share equal to the lower of (i) the installment conversion price for the most recent Installment Date, and (ii) 82.5% of the average VWAP of the Company’s common stock for each of the two trading days with the lowest VWAP of the Company’s common stock during the ten consecutive trading day period ending and including the trading day immediately prior to the acceleration date, but in the case of clause (ii), not less than the Floor Price.

Reallocation. A noteholder may, at its election, reallocate all or any portion of the Installment Amount for an Installment Date to a later date during the Installment Period, with such reallocated amount converted at a reallocation conversion price per share equal to the lower of: (i) the fixed conversion price then in effect, and (ii) the lower of (x) the installment conversion price for the such Installment Date, and (y) 82.5% of the average VWAP of the Company’s common stock for each of the two trading days with the lowest VWAP of the Company’s common stock during the ten consecutive trading day period ending and including the trading day immediately prior to the reallocation date, but in the case of clause (y), not less than the Floor Price.

Change of Control. Upon a Change of Control (as defined in the Note), a noteholder may require the Company to redeem all, or any portion, of the Note at a price equal to 115% the greater of: (i) the outstanding value of the Notes; (ii) the underlying value of the shares then issuable upon conversion of the note (without regard to any limitation on conversion set forth in the Notes); and (iii) the Change of Control consideration attributable to underlying value of the shares then issuable upon conversion of the

Note (without regard to any limitation on conversion set forth in the Note).

Beneficial Ownership Limitation. A noteholder will not have the right to convert any portion of the Note, to the extent that, after giving effect to such conversion, the noteholder (together with certain of its affiliates and other related parties) would beneficially own in excess of 9.99% of the shares of the Company's common stock outstanding immediately after giving effect to such conversion (the "Maximum Percentage"). The noteholder may from time to time increase or decrease the Maximum Percentage (which in no event may exceed 9.99%), provided that any such increase will not be effective until the 61st day after delivery of a notice to the Company of such increase.

Nasdaq Limitation. Unless the Company obtains the approval of its stockholders as required by Nasdaq, the Company will be prohibited from issuing any shares of common stock upon conversion of the Note or otherwise pursuant to the terms of the Note, if the issuance of such shares of common stock would exceed 19.99% of the Company's outstanding shares of common stock as of the date of the SPA or otherwise exceed the aggregate number of shares of common stock which the Company may issue without breaching the Company's obligations under the rules and regulations of Nasdaq.

Events of Default. The Note provides for certain Events of Default, including, among other things, any breach of the covenants described below and any failure of both Lishan Aklog, M.D., the Company's Chairman and Chief Executive Officer, to serve as its Chief Executive Officer and Dennis McGrath, the Company's Chief Financial Officer, to serve as its Chief Executive Officer or Chief Financial Officer. In connection with an Event of Default, the noteholder may require the Company to redeem all or any portion of the Note, in cash, at a price equal to the greater of (i) 132.5% of the conversion amount being redeemed and (ii) the number of shares issuable upon conversion of the conversion amount to be redeemed at the alternate conversion price (as defined in the Note) then in effect, multiplied by the greatest closing sale price of the Company's common stock on any trading day during the period beginning on the date immediately before the Event of Default and ending on the date of redemption.

Covenants. The Company will be subject to certain customary affirmative and negative covenants regarding the rank of the Notes, the incurrence of indebtedness, the existence of liens, the repayment of indebtedness and the making of investments, the payment of cash in respect of dividends, distributions or redemptions, the transfer of assets, the maturity of other indebtedness, and transactions with affiliates, among other customary matters. The Company also will be subject to financial covenants requiring that (i) the amount of the Company's available cash equal or exceed \$5 million at all times, (ii) the ratio of (a) the outstanding principal amount of the Notes, accrued and unpaid interest thereon and accrued and unpaid late charges to (b) the Company's average market capitalization over the prior ten trading days, not exceed 30%, and (iii) that the Company's market capitalization shall at no time be less than an amount to be agreed upon.

Registration Rights Agreement

In connection with the issuance of the Note, the Company will enter into a registration rights agreement in a form to be mutually agreed (the "Registration Rights Agreement"), pursuant to which the Company will grant certain registration rights to the noteholder.

Additional Information

The form of Note, SPA, Security Agreement and the Guaranty are attached hereto as Exhibit 4.1, 10.1, 10.2 and 10.3, respectively, and are incorporated herein by reference. The foregoing description of the Offering and the documentation related thereto does not purport to be complete and is qualified in its entirety by reference to such exhibits.

The form of Note, SPA, Security Agreement and the Guaranty have been included to provide investors and security holders with information regarding their terms. The documents are not intended to provide any other factual information about the Company. The representations, warranties and covenants contained in the form of Note, SPA, Security Agreement, Registration Rights Agreement and Voting Agreement are being made only for purposes of such agreements and as of specific dates, were solely for the benefit of the parties to such agreements, may in some cases be made solely for the allocation of risk between the parties and may be subject to limitations agreed upon by the contracting parties.

Item 2.02. Results of Operations and Financial Condition.

On March 13, 2023, the Company issued a press release announcing financial results for its fiscal year ended December 31, 2022 and providing a business update. A copy of the press release is attached to this report as Exhibit 99.1 and is incorporated herein by reference.

Item 2.03. Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant.

The information included in Item 1.01 of this Current Report is incorporated by reference into this Item 2.03 of this Current Report to the extent required.

Item 3.02. Unregistered Sales of Equity Securities.

The information included in Item 1.01 of Current Report is also incorporated by reference into this Item 3.02 of this Current Report to the extent required. The Convertible Notes, and the shares of the Company's common stock issuable upon conversion or in payment thereof, are being offering and sold pursuant to the exemption from the registration requirements of the Securities Act of 1933, as amended, afforded by Section 4(a)(2) thereof, for the sale of securities not involving a public offering.

Item 3.03. Material Modification to Rights of Security Holders.

The information included in Item 1.01 of Current Report is also incorporated by reference into this Item 3.03 of this Current Report to the extent required.

Item 7.01. Regulation FD Disclosure.

The disclosure set forth under Item 2.02 is incorporated herein by reference.

The information furnished under Items 2.02 and 7.01, including the exhibit related thereto, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, nor shall it be deemed incorporated by reference in any disclosure document of the Company, except as shall be expressly set forth by specific reference in such document.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits:

<u>Exhibit No.</u>	<u>Description</u>
4.1*	Form of Senior Secured Convertible Promissory Note.
10.1*	Form of Securities Purchase Agreement.
10.2*	Form of Security Agreement.
10.3*	Form of Guaranty.
99.1	Press release.

- * Schedule and exhibits to this exhibit omitted pursuant to Regulation S-K Item 601(b)(2). The Company agrees to furnish supplementally a copy of any omitted schedule or exhibit to the SEC upon request.
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SIGNATURE

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

Dated: March 14, 2023

LUCID DIAGNOSTICS INC.

By: /s/ Dennis McGrath
Dennis McGrath
Chief Financial Officer

[FORM OF SENIOR SECURED CONVERTIBLE NOTE]

NEITHER THE ISSUANCE AND SALE OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE NOR THE SECURITIES INTO WHICH THESE SECURITIES ARE CONVERTIBLE 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. ANY TRANSFEREE OF THIS NOTE SHOULD CAREFULLY REVIEW THE TERMS OF THIS NOTE, INCLUDING SECTIONS 3(c)(iii) AND 20(a) HEREOF. THE PRINCIPAL AMOUNT REPRESENTED BY THIS NOTE AND, ACCORDINGLY, THE SECURITIES ISSUABLE UPON CONVERSION HEREOF MAY BE LESS THAN THE AMOUNTS SET FORTH ON THE FACE HEREOF PURSUANT TO SECTION 3(c)(iii) OF THIS NOTE.

THIS NOTE HAS BEEN ISSUED WITH ORIGINAL ISSUE DISCOUNT ("OID"). PURSUANT TO TREASURY REGULATION §1.1275-3(b)(1), DENNIS MCGRATH, A REPRESENTATIVE OF THE COMPANY HEREOF WILL, BEGINNING TEN DAYS AFTER THE ISSUANCE DATE OF THIS NOTE, PROMPTLY MAKE AVAILABLE TO THE HOLDER UPON REQUEST THE INFORMATION DESCRIBED IN TREASURY REGULATION §1.1275-3(b)(1)(i). HE MAY BE REACHED AT TELEPHONE NUMBER (212) 949 - 4319.

Lucid Diagnostics Inc.

Senior Secured Convertible Note

Issuance Date: March [], 2023

Original Principal Amount: U.S.\$11,111,110

FOR VALUE RECEIVED, Lucid Diagnostics Inc., a Delaware corporation (the "**Company**"), hereby promises to pay to the order of [] for its registered assigns ("**Holder**") the amount set forth above as the Original Principal Amount (as reduced pursuant to the terms hereof pursuant to redemption, conversion or otherwise, the "**Principal**") when due, whether upon the Maturity Date, on any Installment Date with respect to the Installment Amount due on such Installment Date (each as defined below), or upon acceleration, redemption or otherwise (in each case in accordance with the terms hereof) and to pay interest ("**Interest**") on the Outstanding Principal Value of this Note at the applicable Interest Rate (as defined below) from the date set forth above as the Issuance Date (the "**Issuance Date**") until the same becomes due and payable, whether upon the Maturity Date, on any Installment Date with respect to the Installment Amount due on such Installment Date, or upon acceleration, conversion, redemption or otherwise (in each case in accordance with the terms hereof). This Senior Secured Convertible Note (including all Senior Secured Convertible Notes issued in exchange, transfer or replacement hereof, this "**Note**") is one of an issue of Senior Secured Convertible Notes (collectively, the "**Notes**", and such other Senior Secured Convertible Notes, the "**Other Notes**") issued pursuant to Section 1 of that certain Securities Purchase Agreement, dated as of March 13, 2023 (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**"). Certain capitalized terms used herein are defined in Section 33.

1. **PAYMENTS OF PRINCIPAL.** On each Installment Date, the Company shall pay to the Holder an amount equal to the Installment Amount due on such Installment Date in accordance with Section 8. On the Maturity Date, the Company shall pay to the Holder an amount in cash (excluding any amounts paid in shares of Common Stock on the Maturity Date in accordance with Section 8) representing the Outstanding Value of this Note as of the Maturity Date. Other than as specifically permitted by this Note, the Company may not prepay any portion of the Outstanding Principal Value, accrued and unpaid Interest or accrued and unpaid Late Charges on the Outstanding Principal Value and Interest, if any. Notwithstanding anything herein to the contrary, with respect to any conversion or redemption hereunder, as applicable, the Company shall convert or redeem, as applicable, First, all accrued and unpaid Late Charges on any Outstanding Principal Value and Interest hereunder and under any other Notes held by the Holder and all other amounts owed to the Holder under any other Transaction Document, Second, all accrued and unpaid Interest hereunder and under any other Notes held by such Holder, Third, all other amounts (other than the Outstanding Principal Value) outstanding under any other Notes held by such Holder and Fourth, the Outstanding Principal Value hereunder and under any other Notes held by such Holder, in each case, allocated pro rata among this Note and such other Notes held by such Holder.

2. **INTEREST; INTEREST RATE.**

(a) Interest on this Note shall commence accruing on the Issuance Date and shall be computed on the Outstanding Principal Value of this Note and on basis of a 360-day year and twelve 30-day months and shall be payable in arrears on each Interest Date and shall compound each calendar month and shall be payable in accordance with the terms of this Note. Interest shall be paid (i) on each Interest Date occurring on an Installment Date in accordance with Section 8 as part of the applicable Installment Amount due on the applicable Installment Date and (ii) with respect to each other Interest Date, on such Interest Date in cash.

(b) Prior to the payment of Interest on an Interest Date, Interest on this Note shall accrue at the Interest Rate and be payable by way of inclusion of the Interest in the Conversion Amount on each Conversion Date in accordance with Section 3(b)(i) or upon any redemption in accordance with Section 13 or any required payment upon any Bankruptcy Event of Default. From and after the occurrence and during the continuance of any Event of Default (regardless of whether the Company has delivered an Event of Default Notice to the Holder or if the Holder has delivered an Event of Default Redemption Notice to the Company or otherwise notified the Company that an Event of Default has occurred), the Interest Rate shall automatically be increased to eighteen percent (18.0%) per annum (the "**Default Rate**"). In the event that such Event of Default is subsequently cured (and no other Event of Default then exists, including, without limitation, for the Company's failure to pay such Interest at the Default Rate on the applicable Interest Date), the adjustment referred to in the preceding sentence shall cease to be effective as of the calendar day immediately following the date of such cure; provided that the Interest as calculated and unpaid at such increased rate during the continuance of such Event of Default shall continue to apply to the extent relating to the days after the occurrence of such Event of Default through and including the date of such cure of such Event of Default.

3. **CONVERSION OF NOTES.** At any time after the Issuance Date, this Note shall be convertible into validly issued, fully paid and non-assessable shares of Common Stock (as defined below), on the terms and conditions set forth in this Section 3.

(a) **Conversion Right.** Subject to the provisions of Section 3(d), at any time or times on or after the Issuance Date, the Holder shall be entitled to convert any portion of the outstanding and unpaid Conversion Amount (as defined below) into validly issued, fully paid and non-assessable shares of Common Stock in accordance with Section 3(c), at the Conversion Rate (as defined below). The Company shall not issue any fraction of a share of Common Stock upon any conversion. If the issuance would result in the issuance of a fraction of a share of Common Stock, the Company shall round such fraction of a share of Common Stock up to the nearest whole share. The Company shall pay any and all transfer, stamp, issuance and similar taxes, costs and expenses (including, without limitation, fees and expenses of the Transfer Agent (as defined below)) that may be payable with respect to the issuance and delivery of Common Stock upon conversion of any Conversion Amount.

(b) **Conversion Rate.** The number of shares of Common Stock issuable upon conversion of any Conversion Amount pursuant to Section 3(a) shall be determined by dividing (x) such Conversion Amount by (y) the Conversion Price (the "**Conversion Rate**").

(i) “**Conversion Amount**” means the sum of (A) the portion of the Outstanding Principal Value of this Note to be converted, redeemed or otherwise with respect to which this determination is being made, (B) accrued and unpaid Interest with respect to such Outstanding Principal Value of this Note, (C) accrued and unpaid Late Charges with respect to such Outstanding Principal Value of this Note and Interest, and (D) any other unpaid amounts pursuant to the Transaction Documents, if any.

(ii) “**Conversion Price**” means, as of any Conversion Date or other date of determination, \$5.00, subject to adjustment as provided herein.

2

(c) Mechanics of Conversion.

(i) Optional Conversion. To convert any Conversion Amount into shares of Common Stock on any date (a “**Conversion Date**”), the Holder shall deliver (whether via electronic mail or otherwise), for receipt on or prior to 6:00 p.m., New York time, on such date, a copy of an executed notice of conversion in the form attached hereto as Exhibit I (each, a “**Conversion Notice**”) to the Company. If required by Section 3(c)(iii), within two (2) Trading Days following a conversion of this Note as aforesaid, the Holder shall surrender this Note to a nationally recognized overnight delivery service for delivery to the Company (or an indemnification undertaking with respect to this Note in the case of its loss, theft or destruction as contemplated by Section 20(b)). On or before the first (1st) Trading Day following the date of receipt of a Conversion Notice (it being agreed that the date of receipt shall be determined in accordance with Section 9(f) of the Securities Purchase Agreement), the Company shall transmit by electronic mail an acknowledgment, in the form attached hereto as Exhibit II, of confirmation of receipt of such Conversion Notice and representation as to whether such shares of Common Stock may then be resold pursuant to Rule 144 or an effective and available registration statement (each, an “**Acknowledgement**”) 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 Conversion Notice in accordance with the terms herein. On or before the second (2nd) Trading Day following the date on which the Company has received a Conversion Notice (or such earlier date as required pursuant to the 1934 Act or other applicable law, rule or regulation for the settlement of a trade initiated on the applicable Conversion Date of such shares of Common Stock issuable pursuant to such Conversion Notice) (the “**Share Delivery Deadline**”), the Company shall (1) provided that the Transfer Agent is participating in The Depository Trust Company’s (“**DTC**”) Fast Automated Securities Transfer Program (“**FAST**”), credit such aggregate number of shares of Common Stock to which the Holder shall be entitled pursuant to such conversion to the Holder’s or its designee’s balance account with DTC through its Deposit/Withdrawal at Custodian system or (2) if the Transfer Agent is not participating in FAST, upon the request of the Holder, issue and deliver (via reputable overnight courier) to the address as specified in the Conversion 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 conversion. If this Note is physically surrendered for conversion pursuant to Section 3(c)(iii) and the Outstanding Principal Value of this Note is greater than the Outstanding Principal Value portion of the Conversion Amount being converted, then the Company shall as soon as practicable and in no event later than two (2) Business Days after receipt of this Note and at its own expense, issue and deliver to the Holder (or its designee) a new Note (in accordance with Section 20(d)) representing the Outstanding Principal Value of this Note not converted. The Person or Persons entitled to receive the shares of Common Stock issuable upon a conversion of this Note shall be treated for all purposes as the record holder or holders of such shares of Common Stock on the Conversion Date. In the event of a partial conversion of this Note pursuant hereto, the Outstanding Principal Value of this Note converted shall be deducted from the Installment Amount(s) relating to the Installment Date(s) as set forth in the applicable Conversion Notice. Notwithstanding anything to the contrary contained in this Note 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.

3

(ii) Company’s Failure to Timely Convert. If the Company shall fail, for any reason or for no reason, on or prior to the applicable Share Delivery Deadline, 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 shares of Common Stock to which the Holder is entitled and register such shares of Common Stock on the Company’s share register or, if the Transfer Agent is participating in FAST and the shares of Common Stock to be issued are then covered by an effective, usable resale registration statement or may otherwise be resold under Rule 144, to credit the balance account of the Holder or the Holder’s designee with DTC for such number of shares of Common Stock to which the Holder is entitled upon the Holder’s conversion of this Note (as the case may be) or (II) if the Registration Statement covering the resale of the shares of Common Stock that are the subject of the Conversion Notice (the “**Unavailable Conversion Shares**”) is not available for the resale of such Unavailable Conversion 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 shares of Common Stock electronically without any restrictive legend by crediting such aggregate number of shares of Common Stock to which the Holder is entitled pursuant to such conversion 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 “**Conversion Failure**”), then, in addition to all other remedies available to the Holder, (1) the Company shall pay in cash to the Holder on each day after such Share Delivery Deadline that the issuance of such shares of Common Stock is not timely effected an amount equal to one percent (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 Deadline 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 Conversion Date and ending on the applicable Share Delivery Deadline and (2) the Holder, upon written notice to the Company, may void its Conversion Notice with respect to, and retain or have returned (as the case may be) any portion of this Note that has not been converted pursuant to such Conversion Notice, provided that the voiding of a Conversion Notice shall not affect the Company’s obligations to make any payments which have accrued prior to the date of such notice pursuant to this Section 3(c)(ii) or otherwise. In addition to the foregoing, if on or prior to the Share Delivery Deadline either (A) if the Transfer Agent is not participating in FAST, 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 FAST, 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 conversion hereunder or pursuant to the Company’s obligation pursuant to clause (II) below or (B) a Notice Failure occurs, and if on or after such Share Delivery Deadline 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 conversion that the Holder is entitled to receive from the Company and has not received from the Company in connection with such Conversion 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 receipt of 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 shares of Common Stock to which the Holder is entitled upon the Holder’s conversion hereunder (as the case may be) (and to issue such shares of Common Stock) shall terminate, or (II) promptly honor its obligation to so issue and deliver to the Holder a certificate or certificates representing 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 shares of Common Stock to which the Holder is entitled upon the Holder’s conversion 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 (x) such number of shares of Common Stock multiplied by (y) the lowest Closing Sale Price of the Common Stock on any Trading Day during the period commencing on the date of the applicable Conversion Notice and ending on the date of such issuance and payment under this clause (II) (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)

(iii) Registration: Book-Entry. The Company shall maintain a register (the “**Register**”) for the recordation of the names and addresses of the holders of each Note and the principal amount of the Notes held by such holders (the “**Registered Notes**”). The entries in the Register shall be conclusive and binding for all purposes absent manifest error. The Company and the holders of the Notes shall treat each Person whose name is recorded in the Register as the owner of a Note for all purposes (including, without limitation, the right to receive payments of Outstanding Principal Value and Interest hereunder) notwithstanding notice to the contrary. A Registered Note may be assigned, transferred or sold in whole or in part only by registration of such assignment or sale on the Register. Upon its receipt of a written request to assign, transfer or sell all or part of any Registered Note by the holder thereof, the Company shall record the information contained therein in the Register and issue one or more new Registered Notes in the same aggregate principal amount as the principal amount of the surrendered Registered Note to the designated assignee or transferee pursuant to Section 20, provided that if the Company does not so record an assignment, transfer or sale (as the case may be) of all or part of any Registered Note within two (2) Business Days of such a request, then the Register shall be automatically deemed updated to reflect such assignment, transfer or sale (as the case may be). Notwithstanding anything to the contrary set forth in this Section 3, following conversion of any portion of this Note in accordance with the terms hereof, the Holder shall not be required to physically surrender this Note to the Company unless (A) the full Conversion Amount represented by this Note is being converted (in which event this Note shall be delivered to the Company following conversion thereof as contemplated by Section 3(c)(i)) or (B) the Holder has provided the Company with prior written notice (which notice may be included in a Conversion Notice) requesting reissuance of this Note upon physical surrender of this Note. The Holder and the Company shall maintain records showing the Outstanding Principal Value, Interest and Late Charges converted and/or paid (as the case may be) and the dates of such conversions and/or payments (as the case may be) or shall use such other method, reasonably satisfactory to the Holder and the Company, so as not to require physical surrender of this Note upon conversion. If the Company does not update the Register to record such Outstanding Principal Value, Interest and Late Charges converted and/or paid (as the case may be) and the dates of such conversions and/or payments (as the case may be) within two (2) Business Days of such occurrence, then the Register shall be automatically deemed updated to reflect such occurrence.

(iv) Pro Rata Conversion: Disputes. In the event that the Company receives a Conversion Notice from more than one holder of Notes for the same Conversion Date and the Company can convert some, but not all, of such portions of the Notes submitted for conversion, the Company, subject to Section 3(d), shall convert from each holder of Notes electing to have Notes converted on such date a pro rata amount of such holder’s portion of its Notes submitted for conversion based on the principal amount of Notes submitted for conversion on such date by such holder relative to the aggregate principal amount of all Notes submitted for conversion on such date. In the event of a dispute as to the number of shares of Common Stock issuable to the Holder in connection with a conversion of this Note, the Company shall issue to the Holder the number of shares of Common Stock not in dispute and resolve such dispute in accordance with Section 25. If a Conversion Notice delivered to the Company would result in a breach of Section 3(d) below, and the Holder does not elect in writing to withdraw, in whole, such Conversion Notice, the Company shall hold such Conversion Notice in abeyance until such time as such Conversion Notice may be satisfied without violating Section 3(d) below (with such calculations thereunder made as of the date such Conversion Notice was initially delivered to the Company).

(d) Limitations on Conversions.

(i) Beneficial Ownership. The Company shall not effect the conversion of any portion of this Note, and the Holder shall not have the right to convert any portion of this Note pursuant to the terms and conditions of this Note and any such conversion shall be null and void and treated as if never made, to the extent that after giving effect to such conversion, the Holder together with the other Attribution Parties collectively would beneficially own in excess of 9.99% (the “**Maximum Percentage**”) of the shares of Common Stock outstanding immediately after giving effect to such conversion. 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 conversion of this Note 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) conversion of the remaining, nonconverted portion of this Note beneficially owned by the Holder or any of the other Attribution Parties and (B) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any convertible notes or convertible preferred stock or 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 3(d)(i). For purposes of this Section 3(d)(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 conversion of this Note 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 a Conversion 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 notify the Holder in writing of the number of shares of Common Stock then outstanding and, to the extent that such Conversion Notice would otherwise cause the Holder’s beneficial ownership, as determined pursuant to this Section 3(d)(i), to exceed the Maximum Percentage, the Holder must notify the Company of a reduced number of shares of Common Stock to be purchased pursuant to such Conversion Notice. 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 Note, 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 conversion of this Note 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. 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 Notes 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 Note 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 convert this Note pursuant to this paragraph shall have any effect on the applicability of the provisions of this paragraph with respect to any subsequent determination of convertibility. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 3(d)(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 3(d)(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 and shall apply to a successor holder of this Note.

(ii) Principal Market Regulation The Company shall not issue any shares of Common Stock upon conversion of this Note or otherwise pursuant to the

terms of this Note if the issuance of such shares of Common Stock would exceed the aggregate number of shares of Common Stock which the Company may issue upon conversion of the Notes or otherwise pursuant to the terms of this Note without breaching the Company's obligations under the rules or regulations of the Principal Market (the number of shares which may be issued without violating such rules and regulations, including rules related to the aggregate of offerings under NASDAQ Listing Rule 5635(d), the "**Exchange Cap**"), except that such limitation shall not apply in the event that the Company (A) obtains the approval of its stockholders as required by the applicable rules of the Principal Market for issuances of shares of Common Stock upon conversion of the Notes or otherwise pursuant to the terms of this Note in excess of such amount or (B) obtains a written opinion from outside counsel to the Company that such approval is not required, which opinion shall be reasonably satisfactory to the Holder. Until such approval or such written opinion is obtained, no Buyer shall be issued in the aggregate, upon conversion of any Notes or otherwise pursuant to the terms of this Note, shares of Common Stock in an amount greater than the product of (i) the Exchange Cap multiplied by (ii) the quotient of (A) the aggregate original principal amount of Notes issued to such Buyer pursuant to the Securities Purchase Agreement on the Closing Date (as defined in the Securities Purchase Agreement) divided by (B) the aggregate original principal amount of all Notes issued to the Buyers pursuant to the Securities Purchase Agreement on the Closing Date (with respect to each Buyer, the "**Exchange Cap Allocation**"). In the event that any Buyer shall sell or otherwise transfer any of such Buyer's Notes, the transferee shall be allocated a pro rata portion of such Buyer's Exchange Cap Allocation with respect to such portion of such Notes so transferred, and the restrictions of the prior sentence shall apply to such transferee with respect to the portion of the Exchange Cap Allocation so allocated to such transferee. Upon conversion in full of a holder's Notes, the difference (if any) between such holder's Exchange Cap Allocation and the number of shares of Common Stock actually issued to such holder upon such holder's conversion in full of such holder's Notes shall be allocated to the respective Exchange Cap Allocations of the remaining holders of Notes on a pro rata basis in proportion to the shares of Common Stock underlying the Notes then held by each such holder. At any time after the earlier to occur of (I) the date the Stockholder Consent (as defined in the Securities Purchase Agreement) is effective pursuant to the applicable law and (II) the Stockholder Consent Deadline, in the event that the Company is prohibited from issuing shares of Common Stock pursuant to this Section 3(d)(ii) (the "**Exchange Cap Shares**"), the Company shall pay cash in exchange for the cancellation of such portion of this Note convertible into such Exchange Cap Shares at a price equal to the sum of (i) the product of (x) such number of Exchange Cap Shares and (y) the greatest Closing Sale Price of the Common Stock on any Trading Day during the period commencing on the date the Holder delivers the applicable Conversion Notice with respect to such Exchange Cap Shares to the Company and ending on the date of such issuance and payment under this Section 3(d)(ii) and (ii) to the extent of any Buy-In related thereto, any Buy-In Payment Amount, any brokerage commissions and other out-of-pocket expenses, if any, of the Holder incurred in connection therewith (collectively, the "**Exchange Cap Share Cancellation Amount**").

7

(c) Right of Alternate Conversion Upon an Event of Default

(i) General. Subject to Section 3(d), at any time during an Event of Default Redemption Right Period (as defined below) with respect to an Alternate Conversion Event of Default (regardless of whether such Event of Default has been cured, or if the Company has delivered an Event of Default Notice to the Holder or if the Holder has delivered an Event of Default Redemption Notice to the Company or otherwise notified the Company that an Event of Default has occurred), the Holder may, at the Holder's option, convert (each, an "**Alternate Conversion**", and the date of such Alternate Conversion, each, an "**Alternate Conversion Date**") all, or any part of, the Conversion Amount (such portion of the Conversion Amount subject to such Alternate Conversion, each, an "**Alternate Conversion Amount**") into shares of Common Stock at the Alternate Conversion Price.

(ii) Mechanics of Alternate Conversion. On any Alternate Conversion Date, the Holder may voluntarily convert any Alternate Conversion Amount pursuant to Section 3(c) (with "Alternate Conversion Price" replacing "Conversion Price" for all purposes hereunder with respect to such Alternate Conversion and with "Redemption Premium of the Conversion Amount" replacing "Conversion Amount" in clause (x) of the definition of Conversion Rate above with respect to such Alternate Conversion) by designating in the Conversion Notice delivered pursuant to this Section 3(e) of this Note that the Holder is electing to use the Alternate Conversion Price for such conversion; provided that in the event of the Conversion Floor Price Condition, on the applicable Alternate Conversion Date the Company shall also deliver to the Holder the applicable Alternate Conversion Floor Amount. Notwithstanding anything to the contrary in this Section 3(e), but subject to Section 3(d), until the Company delivers shares of Common Stock representing the applicable Alternate Conversion Amount to the Holder, such Alternate Conversion Amount may be converted by the Holder into shares of Common Stock pursuant to Section 3(c) without regard to this Section 3(e).

4. RIGHTS UPON EVENT OF DEFAULT

(a) Event of Default. Each of the following events shall constitute an "**Event of Default**" and each of the events in clauses (ix), (x) and (xi) shall constitute a "**Bankruptcy Event of Default**":

(i) the failure of the applicable Registration Statement (as defined in the Registration Rights Agreement) to be filed with the SEC on or prior to the date that is ten (10) days after the applicable Filing Deadline (as defined in the Registration Rights Agreement) or the failure of the applicable Registration Statement to be declared effective by the SEC on or prior to the date that is five (5) days after the applicable Effectiveness Deadline (as defined in the Registration Rights Agreement);

8

(ii) while the applicable Registration Statement is required to be maintained effective pursuant to the terms of the Registration Rights Agreement, the effectiveness of the applicable Registration Statement lapses for any reason (including, without limitation, the issuance of a stop order) or such Registration Statement (or the prospectus contained therein) is unavailable to any holder of Registrable Securities (as defined in the Registration Rights Agreement) for sale of all of such holder's Registrable Securities in accordance with the terms of the Registration Rights Agreement, and such lapse or unavailability continues for a period of five (5) consecutive Trading Days or for more than an aggregate of ten (10) Trading Days in any 365-day period (excluding days during an Allowable Grace Period (as defined in the Registration Rights Agreement));

(iii) the suspension from trading or the failure of the Common Stock to be trading or listed (as applicable) on an Eligible Market for a period of ten (10) consecutive Trading Days;

(iv) the Company's (A) failure to cure a Conversion Failure by delivery of the required number of shares of Common Stock within five (5) Trading Days after the applicable Conversion Date or (B) notice, written or oral, to any holder of the Notes, including, without limitation, by way of public announcement or through any of its agents, at any time, of its intention not to comply, as required, with a request for conversion of any Notes into shares of Common Stock that is requested in accordance with the provisions of the Notes, other than pursuant to Section 3(d);

(v) except to the extent the Company is in compliance with Section 11(b) below, at any time following the tenth (10th) consecutive day that the Holder's Authorized Share Allocation (as defined in Section 11 below) is less than the number of shares of Common Stock that the Holder would be entitled to receive upon a conversion of the full Conversion Amount of this Note (without regard to any limitations on conversion set forth in Section 3(d) or otherwise);

(vi) the Company's or any Subsidiary's failure to pay to the Holder any amount of Outstanding Value of this Note or other amounts when and as due under this Note (including, without limitation, the Company's failure to pay any redemption payments or amounts hereunder) or any other Transaction Document (as defined in the Securities Purchase Agreement) or any other agreement, document, certificate or other instrument delivered in connection with the transactions contemplated hereby and thereby, except, in the case of a failure to pay any Installment Redemption Amount, Interest and/or Late Charges when and as due, in

(vii) the Company fails to remove any restrictive legend on any certificate or any shares of Common Stock issued to the Holder upon conversion of any Securities (as defined in the Securities Purchase Agreement) acquired by the Holder under the Securities Purchase Agreement (including this Note) as and when required by such Securities or the Securities Purchase Agreement, unless otherwise then prohibited by applicable federal securities laws, and any such failure remains uncured for at least ten (10) days;

(viii) the occurrence of any default (after lapse of any applicable cure periods) under, redemption of or acceleration prior to maturity of at least an aggregate of \$150,000 of Indebtedness (as defined in the Securities Purchase Agreement) of the Company or any of its Subsidiaries, other than with respect to any Other Notes;

(ix) bankruptcy, insolvency, reorganization or liquidation proceedings or other proceedings for the relief of debtors shall be instituted by or against the Company or any Subsidiary and, if instituted against the Company or any Subsidiary by a third party, shall not be dismissed within thirty (30) days of their initiation;

(x) the commencement by the Company or any Subsidiary of a voluntary case or proceeding under any applicable federal, state or foreign bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated a bankrupt or insolvent, or the consent by it to the entry of a decree, order, judgment or other similar document in respect of the Company or any Subsidiary in an involuntary case or proceeding under any applicable federal, state or foreign bankruptcy, insolvency, reorganization or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against it, or the filing by it of a petition or answer or consent seeking reorganization or relief under any applicable federal, state or foreign law, or the consent by it to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or any Subsidiary or of any substantial part of its property, or the making by it of an assignment for the benefit of creditors, or the execution of a composition of debts, or the occurrence of any other similar federal, state or foreign proceeding, or the admission by it in writing of its inability to pay its debts generally as they become due, the taking of corporate action by the Company or any Subsidiary in furtherance of any such action or the taking of any action by any Person to commence a Uniform Commercial Code foreclosure sale or any other similar action under federal, state or foreign law;

(xi) the entry by a court of (i) a decree, order, judgment or other similar document in respect of the Company or any Subsidiary of a voluntary or involuntary case or proceeding under any applicable federal, state or foreign bankruptcy, insolvency, reorganization or other similar law or (ii) a decree, order, judgment or other similar document adjudging the Company or any Subsidiary as bankrupt or insolvent, or approving as properly filed a petition seeking liquidation, reorganization, arrangement, adjustment or composition of or in respect of the Company or any Subsidiary under any applicable federal, state or foreign law or (iii) a decree, order, judgment or other similar document appointing a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or any Subsidiary or of any substantial part of its property, or ordering the winding up or liquidation of its affairs, and the continuance of any such decree, order, judgment or other similar document or any such other decree, order, judgment or other similar document unstayed and in effect for a period of thirty (30) consecutive days;

(xii) a final judgment or judgments for the payment of money aggregating in excess of \$150,000 are rendered against the Company and/or any of its Subsidiaries and which judgments are not, within thirty (30) days after the entry thereof, bonded, discharged, settled or stayed pending appeal, or are not discharged within thirty (30) days after the expiration of such stay; provided, however, any judgment which is covered by insurance or an indemnity from a credit worthy party shall not be included in calculating the \$150,000 amount set forth above so long as the Company provides the Holder a written statement from such insurer or indemnity provider (which written statement shall be reasonably satisfactory to the Holder) to the effect that such judgment is covered by insurance or an indemnity and the Company or such Subsidiary (as the case may be) will receive the proceeds of such insurance or indemnity within thirty (30) days of the issuance of such judgment;

(xiii) the Company and/or any Subsidiary, individually or in the aggregate, either (i) fails to pay, when due, or within any applicable grace period, any payment with respect to any Indebtedness in excess of \$150,000 due to any third party (other than, with respect to unsecured Indebtedness only, payments contested by the Company and/or such Subsidiary (as the case may be) in good faith by proper proceedings and with respect to which adequate reserves have been set aside for the payment thereof in accordance with GAAP) or is otherwise in breach or violation of any agreement for monies owed or owing in an amount in excess of \$150,000, which failure to pay, breach or violation permits the other party thereto to declare an event of default or otherwise accelerate amounts due thereunder, or (ii) suffer to exist any other circumstance or event that would, with or without the passage of time or the giving of notice, result in a default or event of default under any agreement binding the Company or any Subsidiary, which default or event of default would or is likely to have a material adverse effect on the business, assets, operations (including results thereof), liabilities, properties, condition (including financial condition) or prospects of the Company or any of its Subsidiaries, individually or in the aggregate;

(xiv) other than as specifically set forth in another clause of this Section 4(a), the Company or any Subsidiary breaches any representation or warranty, in any material respect (other than representations or warranties subject to material adverse effect or materiality, which may not be breached in any respect) or any covenant or other term or condition of any Transaction Document, except, in the case of a breach of a covenant or other term or condition that is curable, only if such breach remains uncured for a period of five (5) consecutive Trading Days;

(xv) the occurrence of four (4) or more false or inaccurate certification (including a false or inaccurate deemed certification) by the Company that either (A) the Equity Conditions are satisfied, (B) there has been no Equity Conditions Failure, or (C) as to whether any Event of Default has occurred;

(xvi) any breach or failure in any respect by the Company or any Subsidiary to comply with any provision of clauses (a) to (g), (n), or (o) to (t) of Section 15 of this Note, but only with respect to clauses (e) to (g), (n) or (o) to (t) of Section 15 of this Note if such breach remains uncured for a period of five (5) consecutive days;

(xvii) any Material Adverse Effect (as defined in the Securities Purchase Agreement) occurs (other than any material adverse development or material adverse change with respect to any products of the Company);

(xviii) any provision of any Transaction Document (including, without limitation, the Security Documents and the Guaranties) shall at any time for any reason (other than pursuant to the express terms thereof) cease to be valid and binding on or enforceable against the parties thereto, or the validity or enforceability thereof shall be contested by any party thereto, or a proceeding shall be commenced by the Company or any Subsidiary or any governmental authority having jurisdiction over any of them, seeking to establish the invalidity or unenforceability thereof, or the Company or any Subsidiary shall deny in writing that it has any liability or obligation purported to be created under any Transaction Document (including, without limitation, the Security Documents and the Guaranties);

(xix) any Security Document shall for any reason fail or cease to create a separate valid and perfected and, except to the extent permitted by the terms hereof or thereof, first priority Lien (as defined in the Securities Purchase Agreement) on the Collateral (as defined in the Security Documents) in favor of the Collateral Agent (as defined in the Securities Purchase Agreement) or any material provision of any Security Document shall at any time for any reason cease to be valid and binding on or enforceable against the Company or the validity or enforceability thereof shall be contested by any party thereto, or a proceeding shall be commenced by the Company or any governmental authority having jurisdiction over the Company, seeking to establish the invalidity or unenforceability thereof;

(xx) any material damage to, or loss, theft or destruction of, any Collateral, whether or not insured, or any strike, lockout, labor dispute, embargo, condemnation, act of God or public enemy, or other casualty which causes, for more than fifteen (15) consecutive days, the cessation or substantial curtailment of revenue producing activities at any facility of the Company or any Subsidiary, if any such event or circumstance has had, or is reasonably likely to have a Material Adverse Effect;

12

(xxi) if both (x) Lishan Aklog ceases to be the chief executive officer of the Company and (y) Dennis McGrath ceases to be the chief financial officer or chief executive officer of the Company; or

(xxii) any Event of Default (as defined in the Other Notes) occurs with respect to any Other Notes.

(b) **Notice of an Event of Default: Redemption Right.** Upon the occurrence of an Event of Default with respect to this Note or any Other Note, the Company shall within one (1) Business Day deliver written notice thereof via electronic mail and overnight courier (with next day delivery specified) (an “**Event of Default Notice**”) to the Holder. At any time after the earlier of the Holder’s receipt of an Event of Default Notice and the Holder becoming aware of the occurrence of an Event of Default (such earlier date, the “**Event of Default Right Commencement Date**”) and ending (such ending date, the “**Event of Default Right Expiration Date**”, and each such period, an “**Event of Default Redemption Right Period**”) on the twentieth (20th) Trading Day after the later of (x) the date such Event of Default is cured and (y) the Holder’s receipt of an Event of Default Notice that includes (I) a reasonable description of the applicable Event of Default, (II) a certification as to whether, in the opinion of the Company, such Event of Default is capable of being cured and, if applicable, a reasonable description of any existing plans of the Company to cure such Event of Default and (III) a certification as to the date the Event of Default occurred and, if cured on or prior to the date of such Event of Default Notice, the applicable Event of Default Right Expiration Date, the Holder may require the Company to redeem (regardless of whether such Event of Default has been cured on or prior to the Event of Default Right Expiration Date) all or any portion of this Note by delivering written notice thereof (the “**Event of Default Redemption Notice**”) to the Company, which Event of Default Redemption Notice shall indicate the portion of this Note the Holder is electing to redeem. Each portion of this Note subject to redemption by the Company pursuant to this Section 4(b) shall be redeemed by the Company at a price equal to the greater of (i) the product of (A) the Conversion Amount to be redeemed multiplied by (B) the Redemption Premium and (ii) the product of (X) the Conversion Rate of an Alternate Conversion with respect to the Conversion Amount in effect at such time as the Holder delivers an Event of Default Redemption Notice multiplied by (Y) the greatest Closing Sale Price of the Common Stock on any Trading Day during the period commencing on the date immediately preceding such Event of Default and ending on the date the Company makes the entire payment required to be made under this Section 4(b) (the “**Event of Default Redemption Price**”). Redemptions required by this Section 4(b) shall be made in accordance with the provisions of Section 13. To the extent redemptions required by this Section 4(b) are deemed or determined by a court of competent jurisdiction to be prepayments of this Note by the Company, such redemptions shall be deemed to be voluntary prepayments. Notwithstanding anything to the contrary in this Section 4(b), but subject to Section 3(d), until the Event of Default Redemption Price (together with any Late Charges thereon) is paid in full, the Conversion Amount submitted for redemption under this Section 4(b) (together with any Late Charges thereon) may be converted, in whole or in part, by the Holder into Common Stock pursuant to the terms of this Note. In the event of a partial redemption of this Note pursuant hereto, the Outstanding Principal Value of this Note redeemed shall be deducted from the Installment Amount(s) relating to the applicable Installment Date(s) as set forth in the Event of Default Redemption Notice. In the event of the Company’s redemption of any portion of this Note under this Section 4(b), the Holder’s damages would be uncertain and difficult to estimate because of the parties’ inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for the Holder. Accordingly, any redemption premium due under this Section 4(b) is intended by the parties to be, and shall be deemed, a reasonable estimate of the Holder’s actual loss of its investment opportunity and not as a penalty. Any redemption upon an Event of Default shall not constitute an election of remedies by the Holder, and all other rights and remedies of the Holder shall be preserved.

13

(c) **Mandatory Redemption upon Bankruptcy Event of Default.** Notwithstanding anything to the contrary herein, and notwithstanding any conversion that is then required or in process, upon any Bankruptcy Event of Default, whether occurring prior to or following the Maturity Date, the Company shall immediately pay to the Holder an amount in cash representing (i) the Outstanding Value of this Note, multiplied by (ii) the Redemption Premium, in addition to any and all other amounts due hereunder, without the requirement for any notice or demand or other action by the Holder or any other person or entity, provided that the Holder may, in its sole discretion, waive such right to receive payment upon a Bankruptcy Event of Default, in whole or in part, and any such waiver shall not affect any other rights of the Holder hereunder, including any other rights in respect of such Bankruptcy Event of Default, any right to conversion, and any right to payment of the Event of Default Redemption Price or any other Redemption Price, as applicable.

5. RIGHTS UPON FUNDAMENTAL TRANSACTION.

(a) **Assumption.** The Company shall not enter into or be party to a Fundamental Transaction unless (i) the Successor Entity assumes in writing all of the obligations of the Company under this Note and the other Transaction Documents in accordance with the provisions of this Section 5(a) 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 each holder of Notes in exchange for such Notes a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to the Notes, including, without limitation, having a principal amount and interest rate equal to the principal amounts then outstanding and the interest rates of the Notes held by such holder, having similar conversion rights as the Notes and having similar ranking and security to the Notes, and satisfactory to the Holder and (ii) the Successor Entity (including its Parent Entity) is a publicly traded corporation whose common stock is quoted on or listed for trading on an Eligible Market. Upon the occurrence of any Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Note and the other Transaction Documents referring to the “Company” shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Note and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Company herein. Upon consummation of a Fundamental Transaction, the Successor Entity shall deliver to the Holder confirmation that there shall be issued upon conversion or redemption of this Note at any time after the consummation of such Fundamental Transaction, in lieu of the shares of Common Stock (or other securities, cash, assets or other property (except such items still issuable under Sections 6 and 17, which shall continue to be receivable thereafter)) issuable upon the conversion or redemption of the Notes prior to such Fundamental Transaction, such shares of the publicly traded common stock (or their equivalent) of the Successor Entity (including its Parent Entity) which the Holder would have been entitled to receive upon the happening of such Fundamental Transaction had this Note been converted immediately prior to such Fundamental Transaction (without regard to any limitations on the conversion of this Note), as adjusted in accordance with the provisions of this Note. Notwithstanding the foregoing, the Holder may elect, at its sole option, by delivery of written notice to the Company to waive this Section 5(a) to permit the Fundamental Transaction without the assumption of this Note. The provisions of this Section 5 shall apply similarly and equally to successive Fundamental Transactions and shall be applied without regard to any limitations on the conversion of this Note.

14

(b) Notice of a Change of Control; Redemption Right. No sooner than twenty (20) Trading Days nor later than ten (10) Trading Days prior to the consummation of a Change of Control (the “**Change of Control Date**”), but not prior to the public announcement of such Change of Control, the Company shall deliver written notice thereof via electronic mail and overnight courier to the Holder (a “**Change of Control Notice**”). At any time during the period beginning after the Holder’s receipt of a Change of Control Notice or the Holder becoming aware of a Change of Control if a Change of Control Notice is not delivered to the Holder in accordance with the immediately preceding sentence (as applicable) and ending on twenty (20) Trading Days after the later of (A) the date of consummation of such Change of Control or (B) the date of receipt of such Change of Control Notice or (C) the date of the announcement of such Change of Control, the Holder may require the Company to redeem all or any portion of this Note by delivering written notice thereof (“**Change of Control Redemption Notice**”) to the Company, which Change of Control Redemption Notice shall indicate the Conversion Amount the Holder is electing to redeem. The portion of this Note subject to redemption pursuant to this Section 5 shall be redeemed by the Company in cash at a price equal to the greatest of (i) the product of (w) the Change of Control Redemption Premium multiplied by (y) the Conversion Amount being redeemed, (ii) the product of (x) the Change of Control Redemption Premium multiplied by (y) the product of (A) the Conversion Amount being redeemed multiplied by (B) the quotient determined by dividing (I) the greatest Closing Sale Price of the shares of Common Stock during the period beginning on the date immediately preceding the earlier to occur of (1) the consummation of the applicable Change of Control and (2) the public announcement of such Change of Control and ending on the date the Holder delivers the Change of Control Redemption Notice by (II) the Conversion Price then in effect and (iii) the product of (y) the Change of Control Redemption Premium multiplied by (z) the product of (A) the Conversion Amount being redeemed multiplied by (B) the quotient of (I) the aggregate cash consideration and the aggregate cash value of any non-cash consideration per share of Common Stock to be paid to the holders of the shares of Common Stock upon consummation of such Change of Control (any such non-cash consideration constituting publicly-traded securities shall be valued at the highest of the Closing Sale Price of such securities as of the Trading Day immediately prior to the consummation of such Change of Control, the Closing Sale Price of such securities on the Trading Day immediately following the public announcement of such proposed Change of Control and the Closing Sale Price of such securities on the Trading Day immediately prior to the public announcement of such proposed Change of Control) divided by (II) the Conversion Price then in effect (the “**Change of Control Redemption Price**”). Redemptions required by this Section 5 shall be made in accordance with the provisions of Section 13 and shall have priority to payments to stockholders in connection with such Change of Control. To the extent redemptions required by this Section 5(b) are deemed or determined by a court of competent jurisdiction to be prepayments of this Note by the Company, such redemptions shall be deemed to be voluntary prepayments. Notwithstanding anything to the contrary in this Section 5, but subject to Section 3(d), until the Change of Control Redemption Price (together with any Late Charges thereon) is paid in full, the Conversion Amount submitted for redemption under this Section 5(b) (together with any Late Charges thereon) may be converted, in whole or in part, by the Holder into Common Stock pursuant to Section 9. In the event of a partial redemption of this Note pursuant hereto, the Outstanding Principal Value of this Note redeemed shall be deducted from the Installment Amount(s) relating to the applicable Installment Date(s) as set forth in the Change of Control Redemption Notice. In the event of the Company’s redemption of any portion of this Note under this Section 5(b), the Holder’s damages would be uncertain and difficult to estimate because of the parties’ inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for the Holder. Accordingly, any redemption premium due under this Section 5(b) is intended by the parties to be, and shall be deemed, a reasonable estimate of the Holder’s actual loss of its investment opportunity and not as a penalty.

6. RIGHTS UPON ISSUANCE OF PURCHASE RIGHTS AND OTHER CORPORATE EVENTS

(a) Purchase Rights. In addition to any adjustments pursuant to Sections 7 and 17 below, if at any time the Company grants, issues or sells any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to all or substantially all of the record holders of any class of Common Stock (the “**Purchase Rights**”), then 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 conversion of this Note (without taking into account any limitations or restrictions on the convertibility of this Note and assuming for such purpose that the Note was converted at the Alternate Conversion Price as of the applicable record date) immediately prior to the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, 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 up to ninety (90) Trading Days (and, if such Purchase Right has an expiration date, maturity date or other similar provision, such term shall be extended by such number of days held in abeyance, if applicable) for the benefit of the Holder until the applicable expiration date, maturity date or similar time (as extended pursuant to the foregoing), until such time or times during such extended period, if any, 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 (and, if such Purchase Right has an expiration date, maturity date or other similar provision, such term shall be extended by such number of days held in abeyance, if applicable)) to the same extent as if there had been no such limitation). The Holder shall be deemed to have waived the right to receive any such Purchase Rights that remain held in abeyance at the end of such abeyance period if not granted prior to such time.

(b) Other Corporate Events. In addition to and not in substitution for any other rights hereunder, prior to the consummation of any Fundamental Transaction pursuant to which holders of shares of Common Stock are entitled to receive securities or other assets with respect to or in exchange for shares of Common Stock (a “**Corporate Event**”), the Company shall make appropriate provision to ensure that the Holder will thereafter have the right to receive upon a conversion of this Note, at the Holder’s option (i) in addition to the shares of Common Stock receivable upon such conversion, such securities or other assets to which the Holder would have been entitled with respect to such shares of Common Stock had such shares of Common Stock been held by the Holder upon the consummation of such Corporate Event (without taking into account any limitations or restrictions on the convertibility of this Note) or (ii) in lieu of the shares of Common Stock otherwise receivable upon such conversion, such securities or other assets received by the holders of shares of Common Stock in connection with the consummation of such Corporate Event in such amounts as the Holder would have been entitled to receive had this Note initially been issued with conversion rights for the form of such consideration (as opposed to shares of Common Stock) at a conversion rate for such consideration commensurate with the Conversion Rate. Provision made pursuant to the preceding sentence shall be in a form and substance satisfactory to the Holder. The provisions of this Section 6 shall apply similarly and equally to successive Corporate Events and shall be applied without regard to any limitations on the conversion or redemption of this Note.

7. RIGHTS UPON ISSUANCE OF OTHER SECURITIES

(a) Adjustment of Conversion Price upon Subdivision or Combination of Common Stock. Without limiting any provision of Section 6 and Section 17, if the Company at any time on or after the Subscription Date subdivides (by any stock split, stock dividend, stock combination, recapitalization or other similar transaction) one or more classes of its outstanding shares of Common Stock into a greater number of shares, the Conversion Price in effect immediately prior to such subdivision will be proportionately reduced. Without limiting any provision of Section 6 and Section 17, if the Company at any time on or after the Subscription Date combines (by any stock split, stock dividend, stock combination, recapitalization or other similar transaction) one or more classes of its outstanding shares of Common Stock into a smaller number of shares, the Conversion Price in effect immediately prior to such combination will be proportionately increased. Any adjustment pursuant to this Section 7(a) shall become effective immediately after the effective date of such subdivision or combination. If any event requiring an adjustment under this Section 7(a) occurs during the period that a Conversion Price is calculated hereunder, then the calculation of such Conversion Price shall be adjusted appropriately to reflect such event.

(b) Holder’s Right of Adjusted Conversion Price. In addition to and not in limitation of the other provisions of this Section 7 or in the Securities Purchase

Agreement, if the Company in any manner issues or sells or enters into any agreement to issue or sell, any Common Stock, Options or Convertible Securities (any such securities, “**Variable Price Securities**”) regardless of whether securities have been sold pursuant to such agreement and whether such agreement has subsequently been terminated, after the Subscription Date that are issuable pursuant to such agreement or convertible into or exchangeable or exercisable for shares of Common Stock at a price which varies or may vary with the market price of the shares of Common Stock, including by way of one or more reset(s) to a fixed price, but exclusive of such formulations reflecting customary anti-dilution provisions (such as share splits, share combinations, share dividends and similar transactions) (each of the formulations for such variable price being herein referred to as, the “**Variable Price**”), the Company shall provide written notice thereof via electronic mail and overnight courier to the Holder on the date of such agreement and the issuance of such Common Stock, Convertible Securities or Options. From and after the date the Company enters into such agreement or issues any such Variable Price Securities, the Holder shall have the right, but not the obligation, in its sole discretion to substitute the Variable Price, as calculated pursuant to the agreements governing such Variable Price Securities, for the Conversion Price upon conversion of this Note by designating in the Conversion Notice delivered upon any conversion of this Note that solely for purposes of such conversion the Holder is relying on the Variable Price rather than the Conversion Price then in effect. The Holder’s election to rely on a Variable Price for a particular conversion of this Note shall not obligate the Holder to rely on a Variable Price for any future conversion of this Note. In addition, from and after the date the Company enters into such agreement or issues any such Variable Price Securities, for purposes of calculating the Installment Conversion Price as of any time of determination, the “**Conversion Price**” as used therein shall mean the lower of (x) the Conversion Price as of such time of determination and (y) the Variable Price as of such time of determination. For avoidance of doubt, this Section 7(b) shall not apply to the issuance or sale of any Variable Price Securities that is permitted under Section 4(n) of the Securities Purchase Agreement.

17

(c) Calculations. All calculations under this Section 7 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 issue or sale of Common Stock.

(d) 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 Note, with the prior written consent of the Required Holders (as defined in the Securities Purchase Agreement), reduce the then current Conversion Price of each of the Notes to any amount and for any period of time deemed appropriate by the board of directors of the Company.

8. INSTALLMENT CONVERSION OR REDEMPTION.

(a) General. On each applicable Installment Date, provided there has been no Equity Conditions Failure, the Company shall pay to the Holder of this Note the applicable Installment Amount due on such date by converting such Installment Amount in accordance with this Section 8 (a “**Installment Conversion**”); provided, however, that the Company may, at its option following notice to the Holder as set forth below, pay the Installment Amount by redeeming such Installment Amount in cash (a “**Installment Redemption**”) or by any combination of an Installment Conversion and an Installment Redemption so long as all of the outstanding applicable Installment Amount due on any Installment Date shall be converted and/or redeemed by the Company on the applicable Installment Date, subject to the provisions of this Section 8. On a date which is on or prior to the eleventh (11th) Trading Day (but no earlier than the sixteenth (16th) Trading Day) prior to each Installment Date (each such eleventh (11th) Trading Day, an “**Installment Notice Due Date**”), the Company shall deliver written notice (each, a “**Installment Notice**” and the date all of the holders receive such notice is referred to as to the “**Installment Notice Date**”), to each holder of Notes and such Installment Notice shall (i) either (A) confirm that the applicable Installment Amount of such holder’s Note shall be converted in whole pursuant to an Installment Conversion or (B) (1) state that the Company elects to redeem for cash, or is required to redeem for cash in accordance with the provisions of the Notes, in whole or in part, the applicable Installment Amount pursuant to an Installment Redemption and (2) specify the portion of such Installment Amount which the Company elects or is required to redeem pursuant to an Installment Redemption (such amount to be redeemed in cash, the “**Installment Redemption Amount**”) and the portion of the applicable Installment Amount, if any, with respect to which the Company will, and is permitted to, effect an Installment Conversion (such amount of the applicable Installment Amount so specified to be so converted pursuant to this Section 8 is referred to herein as the “**Installment Conversion Amount**”), which amounts when added together, must at least equal the entire applicable Installment Amount and (ii) if the applicable Installment Amount is to be paid, in whole or in part, pursuant to an Installment Conversion, certify that there is not then an Equity Conditions Failure as of the applicable Installment Notice Date. Each Installment Notice shall be irrevocable. If the Company does not timely deliver an Installment Notice in accordance with this Section 8 with respect to a particular Installment Date, then the Company shall be deemed to have delivered an irrevocable Installment Notice confirming an Installment Conversion of the entire Installment Amount payable on such Installment Date and shall be deemed to have certified that there is not then an Equity Conditions Failure in connection with such Installment Conversion. Except as expressly provided in this Section 8(a), the Company shall convert and/or redeem the applicable Installment Amount of this Note pursuant to this Section 8 and the corresponding Installment Amounts of the Other Notes pursuant to the corresponding provisions of the Other Notes in the same ratio of the applicable Installment Amount being converted and/or redeemed hereunder. The applicable Installment Conversion Amount (whether set forth in the applicable Installment Notice or by operation of this Section 8) shall be converted in accordance with Section 8(b) and the applicable Installment Redemption Amount shall be redeemed in accordance with Section 8(c).

18

(b) Mechanics of Installment Conversion. Subject to Section 3(d), if the Company delivers an Installment Notice or is deemed to have delivered an Installment Notice certifying that such Installment Amount is being paid, in whole or in part, in an Installment Conversion in accordance with Section 8(a), then the remainder of this Section 8(b) shall apply. The applicable Installment Conversion Amount, if any, shall be converted on the applicable Installment Date at the applicable Installment Conversion Price and the Company shall, on such Installment Date, (A) deliver to the Holder’s account with DTC such shares of Common Stock issued upon such conversion (subject to the reduction contemplated by the immediately following sentence and, if applicable, the penultimate sentence of this Section 8(b)), and (B) in the event of the Conversion Floor Price Condition, the Company shall deliver to the Holder the applicable Conversion Installment Floor Amount; provided that the Equity Conditions are then satisfied (or waived in writing by the Holder) on such Installment Date and an Installment Conversion is not otherwise prohibited under any other provision of this Note. If the Company confirmed (or is deemed to have confirmed by operation of Section 8(a)) the conversion of the applicable Installment Conversion Amount, in whole or in part, and there was no Equity Conditions Failure as of the applicable Installment Notice Date (or is deemed to have certified that the Equity Conditions in connection with any such conversion have been satisfied by operation of Section 8(a)) but an Equity Conditions Failure occurred between the applicable Installment Notice Date and any time through the applicable Installment Date (the “**Interim Installment Period**”), the Company shall provide the Holder a subsequent notice to that effect. If there is an Equity Conditions Failure (which is not waived in writing by the Holder) during such Interim Installment Period or an Installment Conversion is not otherwise permitted under any other provision of this Note, then, at the option of the Holder designated in writing to the Company, the Holder may require the Company to do any one or more of the following: (i) the Company shall redeem all or any part designated by the Holder of the unconverted Installment Conversion Amount (such designated amount is referred to as the “**Designated Redemption Amount**”) and the Company shall pay to the Holder within two (2) days of such Installment Date, by wire transfer of immediately available funds, an amount in cash equal to 132.5% of such Designated Redemption Amount, and/or (ii) the Installment Conversion shall be null and void with respect to all or any part designated by the Holder of the unconverted Installment Conversion Amount and the Holder shall be entitled to all the rights of a holder of this Note with respect to such designated part of the Installment Conversion Amount; provided, however, the Conversion Price for such designated part of such unconverted Installment Conversion Amount shall thereafter be adjusted to equal the lesser of (A) the Installment Conversion Price as in effect on the date on which the Holder voided the Installment Conversion and (B) the Installment Conversion Price that would be in effect on the date on which the Holder delivers a Conversion Notice relating thereto as if such date was an Installment Date. If the Company fails to redeem any Designated Redemption Amount by the second (2nd) day following the applicable Installment Date by payment of such amount by such date, then the Holder shall have the rights set forth in Section 13 as if the Company failed to pay the applicable Installment Redemption Price (as defined below) and all other rights under this Note (including, without limitation, such failure constituting an Event of Default described in Section 4(a)(vi)). Notwithstanding anything to the contrary in this Section 8(b), but subject to 3(d), until the Company delivers Common Stock representing the Installment Conversion Amount to the Holder, the Installment Conversion Amount may be converted by the Holder into Common Stock pursuant to Section 3. In the event that the Holder elects to convert the Installment Conversion Amount prior to the applicable Installment Date as set forth in the immediately preceding sentence, the Installment Conversion Amount so converted shall be deducted from the Installment

Amount(s) relating to the applicable Installment Date(s) as set forth in the applicable Conversion Notice. The Company shall pay any and all taxes that may be payable with respect to the issuance and delivery of any shares of Common Stock in any Installment Conversion hereunder.

19

(c) Mechanics of Installment Redemption. If the Company elects or is required to effect an Installment Redemption, in whole or in part, in accordance with Section 8(a), then the Installment Redemption Amount, if any, shall be redeemed by the Company in cash on the applicable Installment Date by wire transfer to the Holder of immediately available funds in an amount equal to 115% of the applicable Installment Redemption Amount (the “**Installment Redemption Price**”). If the Company fails to redeem such Installment Redemption Amount on such Installment Date by payment of the Installment Redemption Price, then, at the option of the Holder designated in writing to the Company (any such designation shall be a “**Conversion Notice**” for purposes of this Note), the Holder may require the Company to convert all or any part of the Installment Redemption Amount at the Installment Conversion Price (determined as of the date of such designation as if such date were an Installment Date). Conversions required by this Section 8(c) shall be made in accordance with the provisions of Section 3(c). Notwithstanding anything to the contrary in this Section 8(c), but subject to Section 3(d), until the Installment Redemption Price (together with any Late Charges thereon) is paid in full, the Installment Redemption Amount (together with any Late Charges thereon) may be converted, in whole or in part, by the Holder into Common Stock pursuant to Section 3. In the event the Holder elects to convert all or any portion of the Installment Redemption Amount prior to the applicable Installment Date as set forth in the immediately preceding sentence, the Installment Redemption Amount so converted shall be deducted from the Installment Amounts relating to the applicable Installment Date(s) as set forth in the applicable Conversion Notice. Redemptions required by this Section 8(c) shall be made in accordance with the provisions of Section 13.

(d) Deferred Installment Amount. Notwithstanding any provision of this Section 8(d) to the contrary, the Holder may, at its option and in its sole discretion, deliver a written notice to the Company no later than the Trading Day immediately prior to the applicable Installment Date electing to have the payment of all or any portion of an Installment Amount payable on such Installment Date deferred (such amount deferred, the “**Deferral Amount**”, and such deferral, each a “**Deferral**”) until any subsequent Installment Date selected by the Holder, in its sole discretion, in which case, the Deferral Amount shall be added to, and become part of, such subsequent Installment Amount and such Deferral Amount shall continue to accrue Interest hereunder. Any notice delivered by the Holder pursuant to this Section 8(d) shall set forth (i) the Deferral Amount and (ii) the date that such Deferral Amount shall now be payable.

(e) Acceleration of Installment Amounts. Notwithstanding any provision of this Section 8 to the contrary, but subject to Section 3(d), during the period commencing on an Installment Date (a “**Current Installment Date**”) and ending on the Trading Day immediately prior to the next Installment Date (each, an “**Installment Period**”), at the option of the Holder, at one or more times, the Holder may convert other Installment Amounts (each, an “**Acceleration**”, and each such amount, an “**Acceleration Amount**”, and the Conversion Date of any such Acceleration, each an “**Acceleration Date**”), in whole or in part, at the Acceleration Conversion Price of such Acceleration Date in accordance with the conversion procedures set forth in Section 3 hereunder (with “**Acceleration Conversion Price**” replacing “**Conversion Price**” for all purposes therein), *mutatis mutandis*; provided, that if a Conversion Floor Price Condition exists with respect to such Acceleration Date, with each Acceleration the Company shall also deliver to the Holder the Acceleration Floor Amount on the applicable Share Delivery Deadline.

20

(f) Reallocation of Installment Amounts. Notwithstanding any provision of this Section 8 to the contrary, but subject to Section 3(d), at any time with respect to the applicable Installment Amount subject to an Installment Conversion with respect to any given Current Installment Date, the Holder may, at such Holder’s sole option, exercised by delivery of written notice to the Company (each, a “**Reallocation Notice**”) reallocate (each, a “**Reallocation**”) all, or any part, of the Installment Amount with respect to such Current Installment Date to a later date during the applicable Installment Period (each, a “**Reallocation Date**”, and such portion of the applicable Installment Amount reallocated to a given Reallocation Date, each a “**Reallocation Amount**”); provided, that the sum of the remaining Installment Amount not subject to Reallocation and each Reallocation Amount with respect to each Reallocation Date in such applicable Installment Period shall not exceed the Installment Amount with respect to such Current Installment Date prior to such Reallocation. On each Reallocation Date, the Reallocation Amount with respect to such Reallocation Date shall automatically convert into shares of Common Stock at a conversion price equal to the applicable Reallocation Conversion Price as if the Holder delivered a Conversion Notice on the second (2nd) Trading Day immediately prior to such Reallocation Date (with “**Reallocation Conversion Price**” replacing “**Conversion Price**” for all purposes therein) in accordance with the conversion procedures set forth in Section 3 hereunder, *mutatis mutandis*; provided, that if a Conversion Floor Price Condition exists with respect to such Reallocation Date, the Company shall also deliver to the Holder the Reallocation Floor Amount on the applicable Share Delivery Deadline with respect thereto.

9. SUBSEQUENT PLACEMENT OPTIONAL REDEMPTION

(a) General. At any time from and after the earlier of (x) the date the Holder becomes aware of the occurrence of a Subsequent Placement (as defined in the Securities Purchase Agreement) (the “**Holder Notice Date**”) and (y) the time of consummation of a Subsequent Placement (in each case, other than with respect to Excluded Securities (as defined in the Securities Purchase Agreement)) (each, an “**Eligible Subsequent Placement**”), the Holder shall have the right, in its sole discretion, to require that the Company redeem (each a “**Subsequent Placement Optional Redemption**”) all, or any portion, of the Conversion Amount under this Note not in excess of (together with any Subsequent Placement Optional Redemption Amount (as defined in the applicable other Note of the Holder) of any other Notes of the Holder) the Holder’s Holder Pro Rata Amount of 50% of the gross proceeds of such Eligible Subsequent Placement (the “**Eligible Subsequent Placement Optional Redemption Amount**”) by delivering written notice thereof (an “**Subsequent Placement Optional Redemption Notice**”) to the Company. Notwithstanding the foregoing, if the Holder is participating in an Eligible Subsequent Placement, upon the written request of the Holder, the Company shall apply all, or any part, as set forth in such written request, of any amounts that would otherwise be payable to the Holder in such Subsequent Placement Optional Redemption, on a dollar-for-dollar basis, against the purchase price of the securities to be purchased by the Holder in such Eligible Subsequent Placement.

21

(b) Mechanics. Each Subsequent Placement Optional Redemption Notice shall indicate that all, or such applicable portion, as set forth in the applicable Subsequent Placement Optional Redemption Notice, of the Eligible Subsequent Placement Optional Redemption Amount the Holder is electing to have redeemed (the “**Subsequent Placement Optional Redemption Amount**”) and the date of such Subsequent Placement Optional Redemption (the “**Subsequent Placement Optional Redemption Date**”), which shall be the later of (x) the fifth (5th) Business Day after the date of the applicable Subsequent Placement Optional Redemption Notice and (y) the date of the consummation of such Eligible Subsequent Placement. The portion of the Outstanding Value of this Note subject to redemption pursuant to this Section 9 shall be redeemed by the Company in cash at a price equal to 115% of the Subsequent Placement Optional Redemption Amount (the “**Subsequent Placement Optional Redemption Price**”). Redemptions required by this Section 9 shall be made in accordance with the provisions of Section 13.

10. NONCIRCUMVENTION. The Company hereby covenants and agrees that the Company will not, by amendment of its Certificate of Incorporation (as defined in the Securities Purchase Agreement), Bylaws (as defined in the Securities Purchase Agreement) or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, dissolution, issue or sale of securities, or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Note, and will at all times in good faith carry out all of the provisions of this Note and take all action as may be required to protect the rights of the Holder of this Note. Without limiting the generality of the foregoing or any other provision of this Note or the other Transaction Documents, the Company (a) shall not increase the par value of any shares of Common Stock receivable upon conversion of this Note above the Conversion 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 nonassessable shares of Common Stock upon the conversion of this Note.

11. RESERVATION OF AUTHORIZED SHARES.

(a) Reservation. So long as any Notes remain outstanding, the Company shall at all times reserve the Required Reserve Amount (as defined in the Securities Purchase Agreement). 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 Notes based on the original principal amount of the Notes held by each holder on the Closing Date or increase in the number of reserved shares, as the case may be (the “**Authorized Share Allocation**”). In the event that a holder shall sell or otherwise transfer any of such holder’s Notes, 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 Notes shall be allocated to the remaining holders of Notes, pro rata based on the principal amount of the Notes then held by such holders.

22

(b) Insufficient Authorized Shares. If, notwithstanding Section 11(a), and not in limitation thereof, at any time while any of the Notes remain outstanding the Company does not have a sufficient number of authorized and unreserved shares of Common Stock to satisfy its obligation to reserve for issuance upon conversion of the Notes at least a number of shares of Common Stock equal to the Required Reserve Amount (an “**Authorized Share Failure**”), then the Company shall immediately use its reasonable best efforts to take all action necessary to increase the Company’s authorized shares of Common Stock to an amount sufficient to allow the Company to reserve the Required Reserve Amount for the Notes 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 pursuant to the terms of this Note due to the failure by the Company to have sufficient shares of Common Stock available out of the authorized but unissued shares of Common Stock (such unavailable number of shares of Common Stock, the “**Authorized Failure Shares**”), in lieu of delivering such Authorized Failure Shares to the Holder, the Company shall pay cash in exchange for the redemption of such portion of the Conversion Amount convertible into such Authorized Failure Shares at a price equal to the sum of (i) the product of (x) such number of Authorized Failure Shares and (y) the greatest Closing Sale Price of the Common Stock on any Trading Day during the period commencing on the date the Holder delivers the applicable Conversion Notice with respect to such Authorized Failure Shares to the Company and ending on the date of such issuance and payment under this Section 11(a); and (ii) to the extent 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 Authorized Failure Shares, any brokerage commissions and other out-of-pocket expenses, if any, of the Holder incurred in connection therewith. Nothing contained in Section 11(a) or this Section 11(b) shall limit any obligations of the Company under any provision of the Securities Purchase Agreement.

23

12. COMPANY OPTIONAL REDEMPTION.

(a) At any time after date hereof the Company shall have the right to redeem all, but not less than all, of the Conversion Amount then remaining under this Note (the “**Company Optional Redemption Amount**”) on the Company Optional Redemption Date (each as defined below) (a “**Company Optional Redemption**”). The portion of this Note subject to redemption pursuant to this Section 12 shall be redeemed by the Company in cash at a price (the “**Company Optional Redemption Price**”) equal to 132.5% of the greater of (i) the sum of (A) the Conversion Amount being redeemed as of the Company Optional Redemption Date, (B) the applicable Make-Whole Amount as of the Company Optional Redemption Date and (C) the Remaining Option Value of this Note as of the Company Optional Redemption Date, and (ii) the sum of (A) the product of (1) the Conversion Rate with respect to the Conversion Amount being redeemed as of the Company Optional Redemption Date multiplied by (2) the greatest Closing Sale Price of the Common Stock on any Trading Day during the period commencing on the date immediately preceding such Company Optional Redemption Notice Date and ending on the Trading Day immediately prior to the date the Company makes the entire payment required to be made under this Section 12, (B) the applicable Make-Whole Amount as of the Company Optional Redemption Date and (C) the Remaining Option Value of this Note as of the Company Optional Redemption Date. The Company may exercise its right to require redemption under this Section 12 by delivering a written notice thereof by facsimile or electronic mail and overnight courier to all, but not less than all, of the holders of Notes (the “**Company Optional Redemption Notice**”) and the date all of the holders of Notes received such notice is referred to as the “**Company Optional Redemption Notice Date**”). The Company may deliver only one Company Optional Redemption Notice hereunder and such Company Optional Redemption Notice shall be irrevocable. The Company Optional Redemption Notice shall (x) state the date on which the Company Optional Redemption shall occur (the “**Company Optional Redemption Date**”) which date shall not be less than ten (10) Trading Days nor more than twenty (20) Trading Days following the Company Optional Redemption Notice Date, and (y) state the aggregate Conversion Amount of the Notes which is being redeemed in such Company Optional Redemption from the Holder and all of the other holders of the Notes pursuant to this Section 12 (and analogous provisions under the Other Notes) on the Company Optional Redemption Date. Notwithstanding anything herein to the contrary, at any time prior to the date the Company Optional Redemption Price is paid, in full, the Company Optional Redemption Amount may be converted, in whole or in part, by the Holder into shares of Common Stock pursuant to Section 3. All Conversion Amounts converted by the Holder after the Company Optional Redemption Notice Date shall reduce the Company Optional Redemption Amount of this Note required to be redeemed on the Company Optional Redemption Date. Redemptions made pursuant to this Section 12 shall be made in accordance with Section 13. In the event of the Company’s redemption of any portion of this Note under this Section, the Holder’s damages would be uncertain and difficult to estimate because of the parties’ inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for the Holder. Accordingly, any redemption premium due under this Section 12 is intended by the parties to be, and shall be deemed, a reasonable estimate of the Holder’s actual loss of its investment opportunity and not as a penalty. For the avoidance of doubt, the Company shall have no right to effect a Company Optional Redemption if any Event of Default has occurred and continuing, but any Event of Default shall have no effect upon the Holder’s right to convert this Note in its discretion.

(b) Pro Rata Redemption Requirement. If the Company elects to cause a Company Optional Redemption of this Note pursuant to this Section 12, then it must simultaneously take the same action with respect to all of the Other Notes.

24

13. REDEMPTIONS.

(a) Mechanics. The Company shall deliver the applicable Event of Default Redemption Price to the Holder in cash within five (5) Business Days after the Company’s receipt of the Holder’s Event of Default Redemption Notice. If the Holder has submitted a Change of Control Redemption Notice in accordance with Section 5(b), the Company shall deliver the applicable Change of Control Redemption Price to the Holder in cash concurrently with the consummation of such Change of Control if such notice is received prior to the consummation of such Change of Control and within five (5) Business Days after the Company’s receipt of such notice otherwise. The Company shall deliver the applicable Company Optional Redemption Price to the Holder in cash on the applicable Company Optional Redemption Date. The Company shall deliver the applicable Installment Redemption Price to the Holder in cash on the applicable Installment Date. The Company shall deliver the applicable Subsequent Placement Optional Redemption Price to the Holder in cash on the applicable Subsequent Placement Optional Redemption Date. Notwithstanding anything herein to the contrary, in connection with any redemption hereunder at a time the Holder is entitled to receive a cash payment under any of the other Transaction Documents, at the option of the Holder delivered in writing to the Company, the applicable Redemption Price hereunder shall be increased by the amount of such cash

payment owed to the Holder under such other Transaction Document and, upon payment in full or conversion in accordance herewith, shall satisfy the Company's payment obligation under such other Transaction Document. In the event of a redemption of less than all of the Conversion Amount of this Note, the Company shall promptly cause to be issued and delivered to the Holder a new Note (in accordance with Section 20(d)) representing the Outstanding Principal Value of this Note which has not been redeemed. In the event that the Company does not pay the applicable Redemption Price to the Holder within the time period required, at any time thereafter and until the Company pays such unpaid Redemption Price in full, the Holder shall have the option, in lieu of redemption, to require the Company to promptly return to the Holder all or any portion of this Note representing the Conversion Amount that was submitted for redemption and for which the applicable Redemption Price (together with any Late Charges thereon) has not been paid. Upon the Company's receipt of such notice, (x) the applicable Redemption Notice shall be null and void with respect to such Conversion Amount, (y) the Company shall immediately return this Note, or issue a new Note (in accordance with Section 20(d)), to the Holder, and in each case the principal amount of this Note or such new Note (as the case may be) shall be increased by an amount equal to the difference between (1) the applicable Redemption Price (as the case may be, and as adjusted pursuant to this Section 13, if applicable) minus (2) the Outstanding Principal Value portion of the Conversion Amount submitted for redemption and (z) the Conversion Price of this Note or such new Notes (as the case may be) shall be automatically adjusted with respect to each conversion effected thereafter by the Holder to the lowest of (A) the Conversion Price as in effect on the date on which the applicable Redemption Notice is voided, (B) the greater of (x) the Floor Price and (y) 75% of the lowest Closing Bid Price of the Common Stock during the period beginning on and including the date on which the applicable Redemption Notice is delivered to the Company and ending on and including the date on which the applicable Redemption Notice is voided and (C) the greater of (x) the Floor Price and (y) 75% of the quotient of (I) the sum of the five (5) lowest VWAPs of the Common Stock during the twenty (20) consecutive Trading Day period ending and including the applicable Conversion Date divided by (II) five (5) (it being understood and agreed that all such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during such period). The Holder's delivery of a notice voiding a Redemption Notice and exercise of its rights following such notice shall not affect the Company's obligations to make any payments of Late Charges which have accrued prior to the date of such notice with respect to the Conversion Amount subject to such notice.

25

(b) Redemption by Other Holders. Upon the Company's receipt of notice from any of the holders of the Other Notes for redemption or repayment as a result of an event or occurrence substantially similar to the events or occurrences described in Section 4(b) or Section 5(b) (each, an "**Other Redemption Notice**"), the Company shall immediately, but no later than one (1) Business Day of its receipt thereof, forward to the Holder by electronic mail a copy of such notice. If the Company receives a Redemption Notice and one or more Other Redemption Notices, during the seven (7) Business Day period beginning on and including the date which is two (2) Business Days prior to the Company's receipt of the Holder's applicable Redemption Notice and ending on and including the date which is two (2) Business Days after the Company's receipt of the Holder's applicable Redemption Notice and the Company is unable to redeem all principal, interest and other amounts designated in such Redemption Notice and such Other Redemption Notices received during such seven (7) Business Day period, then the Company shall redeem a pro rata amount from each holder of the Notes (including the Holder) based on the principal amount of the Notes submitted for redemption pursuant to such Redemption Notice and such Other Redemption Notices received by the Company during such seven (7) Business Day period.

14. VOTING RIGHTS. The Holder shall have no voting rights as the holder of this Note, except as required by law (including, without limitation, the Delaware General Corporation Law) and as expressly provided in this Note.

15. COVENANTS. Until all of the Notes have been converted, redeemed or otherwise satisfied in accordance with their terms:

(a) Rank. All payments due under this Note (a) shall rank *pari passu* with all Other Notes and (b) shall be senior to all other Indebtedness of the Company and its Subsidiaries (other than Permitted Indebtedness secured by Permitted Liens).

(b) Incurrence of Indebtedness. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, incur or guarantee, assume or suffer to exist any Indebtedness (other than (i) the Indebtedness evidenced by this Note and the Other Notes and (ii) other Permitted Indebtedness).

26

(c) Existence of Liens. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, allow or suffer to exist any mortgage, lien, pledge, charge, security interest or other encumbrance upon or in any property or assets (including accounts and contract rights) owned by the Company or any of its Subsidiaries (collectively, "**Liens**") other than Permitted Liens.

(d) Restricted Payments and Investments. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, redeem, defease, repurchase, repay or make any payments in respect of, by the payment of cash or cash equivalents (in whole or in part, whether by way of open market purchases, tender offers, private transactions or otherwise), all or any portion of any Indebtedness (other than the Notes or any amounts of the Permitted Insurance Indebtedness) whether by way of payment in respect of principal of (or premium, if any) or interest on, such Indebtedness or make any Investment, as applicable, if at the time such payment with respect to such Indebtedness and/or Investment, as applicable, is due or is otherwise made or, after giving effect to such payment, (i) an event constituting an Event of Default has occurred and is continuing or (ii) an event that with the passage of time and without being cured would constitute an Event of Default has occurred and is continuing.

(e) Restriction on Redemption and Cash Dividends. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, redeem, repurchase or declare or pay any cash dividend or distribution on any of its capital stock (other than redemptions of capital stock held by employees in accordance with their equity award agreements or otherwise to satisfy any of their reimbursement obligations thereunder or dividends or distributions) to the Company or any Significant Subsidiary (as defined in the Securities Purchase Agreement).

(f) Restriction on Transfer of Assets. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, sell, lease, license, assign, transfer, spin-off, split-off, close, convey or otherwise dispose of any assets or rights of the Company or any Subsidiary owned or hereafter acquired whether in a single transaction or a series of related transactions, other than (i) sales, leases, licenses, assignments, transfers, conveyances and other dispositions of such assets or rights by the Company and its Subsidiaries of any of the Company's or any of its Subsidiaries' products to any third party in a bona fide arms-length transaction for fair value in the ordinary course of business consistent with its past practice and approved by the independent directors of the board of directors of the Company, (ii) sales of inventory and product in the ordinary course of business, (iii) licenses or transfers of limited samples of products to institutions to facilitate research projects in connection with sponsored research agreements, (iv) sales, leases, licenses, assignments, transfers, conveyances and other dispositions of such assets or rights that are permitted under Section 15(m), (v) the distribution to the holders of Common Stock (solely, to the extent, such distribution includes the holders of the Notes in accordance with the terms hereof) of up to 10% of the outstanding common equity of any Significant Subsidiary, and (vi) in connection with a Fundamental Transaction.

27

(g) Maturity of Indebtedness. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, permit any Indebtedness of the Company or any of its Subsidiaries (other than Permitted Indebtedness) to mature or accelerate prior to the Maturity Date.

(h) Change in Nature of Business. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, engage in any material line of business substantially different from those lines of business conducted by or publicly contemplated to be conducted by the Company and each of its Subsidiaries on the Subscription Date or any business substantially related or incidental thereto (it being agreed and understood that the engagement by the Company or

any of its Subsidiaries in any business in respect of a new medical device or biotech product or service is not substantially different than the lines of business conducted by the Company and its Subsidiaries as of the Subscription Date). The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, modify its or their corporate structure or purpose.

(i) Preservation of Existence, Etc. The Company shall maintain and preserve, and cause each of its Significant Subsidiaries to maintain and preserve, its existence, rights and privileges, and become or remain, and cause each of its Significant Subsidiaries to become or remain, duly qualified and in good standing in each jurisdiction in which the character of the properties owned or leased by it or in which the transaction of its business makes such qualification necessary except in the case that any such failure to so maintain, preserve or comply has not had, and is not reasonably likely to have, a Material Adverse Effect.

(j) Maintenance of Properties, Etc. The Company shall maintain and preserve, and cause each of its Significant Subsidiaries to maintain and preserve, all of its properties which are necessary or useful in the proper conduct of its business in good working order and condition, ordinary wear and tear excepted, and comply, and cause each of its Significant Subsidiaries to comply, at all times with the provisions of all leases to which it is a party as lessee or under which it occupies property, so as to prevent any loss or forfeiture thereof or thereunder except in the case that any such failure to so maintain, preserve or comply has not had, and is not reasonably likely to have, a Material Adverse Effect.

(k) Maintenance of Intellectual Property. The Company will, and will cause each of its Subsidiaries to, take all action necessary or advisable to maintain all of Material Intellectual Property Rights (as defined in the Securities Purchase Agreement) of the Company and/or any of its Subsidiaries that are necessary or material to the conduct of its business in full force and effect.

28

(l) Maintenance of Insurance. The Company shall maintain, and cause each of its Subsidiaries to maintain, insurance (including, without limitation, comprehensive general liability, hazard, rent and business interruption insurance) with respect to its properties (including all real properties leased or owned by it) and business, in such amounts and covering such risks as is required by any governmental authority having jurisdiction with respect thereto or as is carried generally in accordance with sound business practice by companies in similar businesses similarly situated.

(m) Transactions with Affiliates. The Company shall not, nor shall it permit any of its Subsidiaries to, enter into, renew, extend or be a party to, any transaction or series of related transactions (including, without limitation, the purchase, sale, lease, transfer or exchange of property or assets of any kind or the rendering of services of any kind) with any affiliate, except transactions between or among PAVmed, the Company and its Significant Subsidiaries or other transactions in the ordinary course of business in a manner and to an extent consistent with past practice and necessary or desirable for the prudent operation of its business, for fair consideration and on terms no less favorable to it or its Subsidiaries than would be obtainable in a comparable arm's length transaction with a Person that is not an affiliate thereof.

(n) Restricted Issuances. The Company shall not, directly or indirectly, without the prior written consent of the holders of a majority in aggregate principal amount of the Notes then outstanding, (i) issue any Notes (other than as contemplated by the Securities Purchase Agreement and the Notes) or (ii) issue any other securities that would cause a breach or default under the Notes.

(o) New Significant Subsidiaries. Simultaneously with the acquisition or formation of each New Significant Subsidiary (or upon such other time as a Subsidiary becomes a Significant Subsidiary), the Company shall cause such New Significant Subsidiary to execute, and deliver to each holder of Notes, all Security Documents (as defined in the Securities Purchase Agreement) and Guarantees (as defined in the Securities Purchase Agreement) as requested by the Collateral Agent or the Required Holders, as applicable. The Company shall also deliver to the Collateral Agent an opinion of counsel to such New Significant Subsidiary that is reasonably satisfactory to the Collateral Agent and the Required Holders covering such legal matters with respect to such New Significant Subsidiary becoming a guarantor of the Company's obligations, executing and delivering the Security Document and the Guarantees and any other matters that the Collateral Agent or the Required Holders may reasonably request. The Company shall deliver, or cause the applicable Subsidiary to deliver to the Collateral Agent, each of the physical stock certificates of such New Significant Subsidiary, along with undated stock powers for each such certificates, executed in blank (or, if any such shares of capital stock are uncertificated, confirmation and evidence reasonably satisfactory to the Collateral Agent and the Required Holders that the security interest in such uncertificated securities has been transferred to and perfected by the Collateral Agent, in accordance with Sections 8-313, 8-321 and 9-115 of the Uniform Commercial Code or any other similar or local or foreign law that may be applicable).

29

(p) Change in Collateral; Collateral Records. The Company shall (i) give the Collateral Agent not less than twenty (20) days' prior written notice of any change in the location of any Collateral (as defined in the Security Documents), other than to locations set forth in the Perfection Certificate (as defined in the Securities Purchase Agreement) hereto and with respect to which the Collateral Agent has filed financing statements and otherwise fully perfected its Liens thereon, (ii) advise the Collateral Agent promptly, in sufficient detail, of any material adverse change relating to the type, quantity or quality of the Collateral or the Lien granted thereon and (iii) execute and deliver, and cause each of its Subsidiaries to execute and deliver, to the Collateral Agent for the benefit of the Holder and holders of the Other Notes from time to time, solely for the Collateral Agent's convenience in maintaining a record of Collateral, such written statements and schedules as the Collateral Agent or any Holder may reasonably require, designating, identifying or describing the Collateral.

(q) Controlled Accounts.

(i) General. The Company shall promptly following, but in any event within twenty-one (21) days after, the Closing Date (the "**Controlled Account Deadline**"), establish and maintain cash management services of a type and on terms reasonably satisfactory to Holder at and each bank listed on Schedule 15(q)(i) attached hereto or any other bank in each case to the extent the Company maintains deposit accounts therewith (each a "**Controlled Account Bank**") and cause all cash and cash equivalents of the Company or any of its Covered Subsidiaries (as defined in the Securities Purchase Agreement) to be held in Accounts (as defined in the Security Agreement) at one or more Controlled Account Banks in accordance therewith. Subject to the foregoing, the Company shall establish and maintain Controlled Account Agreements (as defined in the Security Agreement) with the Collateral Agent (as defined in the Security Agreement) and each Controlled Account Bank, in form and substance reasonably acceptable to the Collateral Agent and the Required Holders, with respect to each account maintained at such bank on behalf of Company and/or its Covered Subsidiaries (each such account a "**Controlled Account**" and collectively, the "**Controlled Accounts**"), and the Operating Accounts (as defined below). Each such Controlled Account Agreement shall provide, among other things, that (A) the Controlled Account Bank will comply with any and all instructions originated by the Collateral Agent directing the disposition of the funds in the Controlled Accounts without further consent by the Company or any such Covered Subsidiaries following and during the continuance of an Event of Default, (B) the Controlled Account Bank waives, subordinates or agrees not to exercise any rights of setoff or recoupment or any other claim against the applicable Controlled Account other than for payment of its service fees and other charges directly related to the administration of such Controlled Account and for returned checks or other items of payment (if so provided in the Controlled Account Bank's standard form controlled account agreement), and (C) with respect to each Controlled Account (collectively, the "**Operating Accounts**"), upon the instruction of Collateral Agent (an "**Activation Instruction**"), the Controlled Account Bank shall not comply following and during the continuance of an Event of Default with any instructions, directions or orders of any form with respect to the Operating Accounts other than instructions, directions or orders originated by Collateral Agent. The Collateral Agent shall not issue an Activation Instruction with respect to the Operating Accounts unless an Event of Default has occurred and is continuing at the time such Activation Instruction is issued.

30

(ii) Additional Controlled Account Agreements. If at any time on or after the Controlled Account Deadline, the average daily balance of any Account of the Company or any of its Covered Subsidiaries that is not subject to a Controlled Account Agreement, in form and substance reasonably satisfactory to the Collateral Agent and the Required Holders, in favor of the Collateral Agent exceeds \$10,000 (the “**Maximum Per Account Free Cash Amount**”) during any calendar month (including the calendar month in which the Applicable Closing Date (as defined in the Securities Purchase Agreement) occurs), the Company shall either (x) within twenty-one (21) calendar days following the last day of such calendar month, deliver to the Collateral Agent a Controlled Account Agreement, in form and substance reasonably satisfactory to the Collateral Agent, duly executed by the Company and the depository bank in which such Account is maintained or (y) within two (2) Business Days following such date, effect a transfer to a Controlled Account of a cash amount sufficient to reduce the amount of the Company’s or the applicable Covered Subsidiary’s cash held in such Account to an amount not in excess of the Maximum Per Account Free Cash Amount.

(iii) Maximum Free Cash Amount. Notwithstanding anything to the contrary contained in Section 15(q)(ii) above, and without limiting any of the foregoing, if at any time on or after the Controlled Account Deadline, the total aggregate amount of the Company’s and any of its Covered Subsidiaries, in the aggregate, cash that is not held in a Controlled Account exceeds \$50,000 (the “**Maximum Free Cash Amount**”), the Company shall within two (2) Business Days following such date, effect a transfer to a Controlled Account of a cash amount sufficient to reduce the total aggregate amount of the Company’s and its Covered Subsidiaries’, as applicable, cash that is not held in a Controlled Account to an amount not in excess of the Maximum Free Cash Amount.

(r) Stay, Extension and Usury Laws. To the extent that it may lawfully do so, the Company (A) agrees that it will not at any time insist upon, plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay, extension or usury law (wherever or whenever enacted or in force) that may affect the covenants or the performance of this Note; and (B) expressly waives all benefits or advantages of any such law and agrees that it will not, by resort to any such law, hinder, delay or impede the execution of any power granted to the Holder by this Note, but will suffer and permit the execution of every such power as though no such law has been enacted.

31

(s) Taxes. The Company and its Subsidiaries shall pay when due all taxes, fees or other charges of any nature whatsoever (together with any related interest or penalties) now or hereafter imposed or assessed against the Company and its Subsidiaries or their respective assets or upon their ownership, possession, use, operation or disposition thereof or upon their rents, receipts or earnings arising therefrom (except where the failure to pay would not, individually or in the aggregate, have a material effect on the Company or any of its Subsidiaries). The Company and its Subsidiaries shall file on or before the due date therefor all personal property tax returns (except where the failure to file would not, individually or in the aggregate, have a material effect on the Company or any of its Subsidiaries). Notwithstanding the foregoing, the Company and its Subsidiaries may contest, in good faith and by appropriate proceedings, taxes for which they maintain adequate reserves therefor in accordance with GAAP.

(t) Financial Covenants: Announcement of Operating Results

(i) Available Cash Test. At any time any Notes remains outstanding, the Company’s Available Cash shall equal or exceed \$5 million (the “**Available Cash Test**”).

(ii) Ratio of Outstanding Value to Market Capitalization Test. The ratio of the Outstanding Value (as defined in each of the Notes) of all of the Notes then outstanding as of such time of determination to the quotient of (x) the sum of the Market Capitalization for each Business Day during the ten (10) consecutive Business Days immediately prior to such time of determination, divided by (y) ten (10) (the “**Ratio of Outstanding Value to Market Capitalization**”) as of the last day of any Fiscal Quarter, commencing with September 30, 2023, shall not exceed 30%; provided that the Market Capitalization shall at no time be less than \$[] million (the “**Ratio of Outstanding Value to Market Capitalization Test**”) and, together with the Available Cash Test, each a “**Financial Test**”).

(iii) Operating Results Announcement. Commencing on the initial Covenant Measuring Date, the Company shall publicly disclose and disseminate (such date, the “**Announcement Date**”), if any Financial Test has not been satisfied for such Fiscal Quarter or Fiscal Year, as applicable, a statement to that effect no later than the tenth (10th) day after the end of such Fiscal Quarter or Fiscal Year, as applicable, and such announcement shall include a statement to the effect that the Company is (or is not, as applicable) in breach of a Financial Test for such Fiscal Quarter or Fiscal Year, as applicable. On the Announcement Date, the Company shall also provide to the Holder a certification, executed on behalf of the Company by the Chief Financial Officer of the Company, certifying that the Company satisfied the Financial Tests for such Fiscal Quarter or Fiscal Year, as applicable, if that is the case. If the Company has failed to meet one or more Financial Tests for a Fiscal Quarter or Fiscal Year, as applicable, (each a “**Financial Covenant Failure**”), the Company shall provide to the Holders a written certification, executed on behalf of the Company by the Chief Financial Officer of the Company, certifying that such Financial Test(s) has not been met for such Fiscal Quarter or Fiscal Year, as applicable (a “**Financial Covenant Failure Notice**”). Concurrently with the delivery of each Financial Covenant Failure Notice to the Holders, the Company shall also make publicly available (as part of a Quarterly Report on Form 10-Q, Annual Report on Form 10-K or on a Current Report on Form 8-K, or otherwise) the Financial Covenant Failure Notice and the fact that an Event of Default has occurred under the Notes.

32

(iv) PCAOB Registered Auditor. At all times any Notes remain outstanding, the Company shall have engaged an independent auditor to audit its financial statements that is registered with (and in compliance with the rules and regulations of) the Public Company Accounting Oversight Board.

(u) Independent Investigation. At the reasonable request of the Holder either (x) at any time when an Event of Default has occurred and is continuing, (y) upon the occurrence and during the continuance of an event that with the passage of time or giving of notice would constitute an Event of Default or (z) at any time the Holder reasonably believes an Event of Default may have occurred and be continuing, the Company shall hire an independent, reputable investment bank selected by the Company and approved by the Required Holders, such approval not to be unreasonably withheld or delayed, to investigate as to whether any breach of this Note has occurred (the “**Independent Investigator**”). If the Independent Investigator determines that such breach of this Note has occurred, the Independent Investigator shall notify the Company of such breach and the Company shall deliver written notice to each holder of a Note of such breach. In connection with such investigation, the Independent Investigator may, during normal business hours, inspect all contracts, books, records, personnel, offices and other facilities and properties of the Company and its Subsidiaries and, to the extent available to the Company after the Company uses reasonable efforts to obtain them, the records of its legal advisors and accountants (including the accountants’ work papers) and any books of account, records, reports and other papers not contractually required of the Company to be confidential or secret, or subject to attorney-client or other evidentiary privilege, and the Independent Investigator may make such copies and inspections thereof as the Independent Investigator may reasonably request. The Company shall furnish the Independent Investigator with such financial and operating data and other information with respect to the business and properties of the Company as the Independent Investigator may reasonably request. The Company shall permit the Independent Investigator to discuss the affairs, finances and accounts of the Company with, and to make proposals and furnish advice with respect thereto to, the Company’s officers, directors, key employees and independent public accountants or any of them (and by this provision the Company authorizes said accountants to discuss with such Independent Investigator the finances and affairs of the Company and any Subsidiaries), all at such reasonable times, upon reasonable notice, and as often as may be reasonably requested.

16. SECURITY. This Note and the Other Notes are secured to the extent and in the manner set forth in the Transaction Documents (including, without limitation, the Security Agreement and the other Security Documents and the Guaranties).

33

17. DISTRIBUTION OF ASSETS. In addition to any adjustments pursuant to Section 6 and 7 above, if the Company shall declare or make any dividend or other distributions of its assets (or rights to acquire its assets) to all holders of shares of Common Stock, by way of return of capital or otherwise (including without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (the “**Distributions**”), then the Holder will be entitled to such Distributions as if the Holder had held the number of shares of Common Stock acquirable upon complete conversion of this Note (without taking into account any limitations or restrictions on the convertibility of this Note and assuming for such purpose that the Note was converted at the Alternate Conversion Price as of the applicable record date) immediately prior to the date on which a record is taken for such Distribution or, if no such record is taken, the date as of which the record holders of Common Stock are to be determined for such Distributions (provided, 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 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 Distribution (and beneficial ownership) to the extent of any such excess) and the portion of such Distribution shall be held in abeyance for ninety (90) Trading Days for the benefit of the Holder until such time or times during such abeyance period, 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 for additional ninety (90) Trading Days) to the same extent as if there had been no such limitation). The Holder shall be deemed to have waived the right to receive any such Distributions that remain held in abeyance at the end of such abeyance period if not granted prior to such time.

18. AMENDING THE TERMS OF THIS NOTE. Except for Section 3(d)(i) which may not be amended, modified or waived by the parties hereto, the prior written consent of the Required Holders (as defined in the Securities Purchase Agreement) and the Company shall be required for any change, waiver or amendment to this Note. Any change, waiver or amendment so approved shall be binding upon all existing and future holders of this Note and any Other Notes; provided, however, that no such change, waiver or, as applied to any of the Notes held by any particular holder of Notes, shall, without the written consent of that particular holder, (i) reduce the amount of Principal, reduce the amount of accrued and unpaid Interest, or extend the Maturity Date, of the Notes, (ii) disproportionately and adversely affect any rights under the Notes of any holder of Notes; or (iii) modify any of the provisions of, or impair the right of any holder of Notes under, this Section 18.

19. TRANSFER. This Note and any shares of Common Stock issued upon conversion of this Note may be offered, sold, assigned or transferred by the Holder without the consent of the Company, subject only to the provisions of Section 2(g) of the Securities Purchase Agreement.

34

20. REISSUANCE OF THIS NOTE.

(a) Transfer. If this Note is to be transferred, the Holder shall surrender this Note to the Company, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Note (in accordance with Section 20(d)), registered as the Holder may request, representing the outstanding Principal being transferred by the Holder and, if less than the entire outstanding Principal is being transferred, a new Note (in accordance with Section 20(d)) to the Holder representing the outstanding Principal not being transferred. The Holder and any assignee, by acceptance of this Note, acknowledge and agree that, by reason of the provisions of Section 3(c)(iii) following conversion or redemption of any portion of this Note, the outstanding Principal represented by this Note may be less than the Principal stated on the face of this Note.

(b) Lost, Stolen or Mutilated Note. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Note (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 Note, the Company shall execute and deliver to the Holder a new Note (in accordance with Section 20(d)) representing the outstanding Principal.

(c) Note Exchangeable for Different Denominations. This Note is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for a new Note or Notes (in accordance with Section 20(d) and in principal amounts of at least \$1,000) representing in the aggregate the outstanding Principal of this Note, and each such new Note will represent such portion of such outstanding Principal as is designated by the Holder at the time of such surrender.

(d) Issuance of New Notes. Whenever the Company is required to issue a new Note pursuant to the terms of this Note, such new Note (i) shall be of like tenor with this Note, (ii) shall represent, as indicated on the face of such new Note, the Principal remaining outstanding (or in the case of a new Note being issued pursuant to Section 20(a) or Section 20(c), the Principal designated by the Holder which, when added to the principal represented by the other new Notes issued in connection with such issuance, does not exceed the Principal remaining outstanding under this Note immediately prior to such issuance of new Notes), (iii) shall have an issuance date, as indicated on the face of such new Note, which is the same as the Issuance Date of this Note, (iv) shall have the same rights and conditions as this Note, and (v) shall represent accrued and unpaid Interest and Late Charges on the Principal and Interest of this Note, from the Issuance Date.

35

21. REMEDIES, CHARACTERIZATIONS, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF. The remedies provided in this Note shall be cumulative and in addition to all other remedies available under this Note and any of the other Transaction Documents at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the Holder’s right to pursue actual and consequential damages for any failure by the Company to comply with the terms of this Note. No failure on the part of the Holder to exercise, and no delay in exercising, any right, power or remedy hereunder shall operate as a waiver thereof; nor shall any single or partial exercise by the Holder of any right, power or remedy preclude any other or further exercise thereof or the exercise of any other right, power or remedy. In addition, the exercise of any right or remedy of the Holder at law or equity or under this Note or any of the documents shall not be deemed to be an election of Holder’s rights or remedies under such documents or at law or equity. The Company covenants to the Holder that there shall be no characterization concerning this instrument other than as expressly provided herein. Amounts set forth or provided for herein with respect to payments, conversion and the like (and the computation thereof) shall be the amounts to be received by the Holder and shall not, except as expressly provided herein, be subject to any other obligation of the Company (or the performance thereof). The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the Holder shall be entitled, in addition to all other available remedies, to 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 reasonably requested by the Holder to enable the Holder to confirm the Company’s compliance with the terms and conditions of this Note (including, without limitation, compliance with Section 7).

22. PAYMENT OF COLLECTION, ENFORCEMENT AND OTHER COSTS. If (a) this Note 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 Note and/or any other Transaction Document or to enforce the provisions of this Note and/or any other Transaction Document or (b) there occurs any bankruptcy, reorganization, receivership of the Company or other proceedings affecting Company creditors’ rights and involving a claim under this Note, 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. The Company expressly acknowledges and agrees that no amounts due under this Note and/or any other Transaction Document, as applicable, shall be affected, or limited, by the fact that the purchase price paid for this Note was less than the original Principal amount hereof.

23. CONSTRUCTION; HEADINGS. This Note shall be deemed to be jointly drafted by the Company and the initial Holder and shall not be construed against any

such Person as the drafter hereof. The headings of this Note are for convenience of reference and shall not form part of, or affect the interpretation of, this Note. 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 Note instead of just the provision in which they are found. Unless expressly indicated otherwise, all section references are to sections of this Note. Terms used in this Note and not otherwise defined herein, but defined in the other Transaction Documents, shall have the meanings ascribed to such terms on the Closing Date in such other Transaction Documents unless otherwise consented to in writing by the Holder.

24. FAILURE OR INDULGENCE NOT WAIVER. No failure or delay on the part of the Holder in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege. No waiver shall be effective unless it is in writing and signed by an authorized representative of the waiving party. Notwithstanding the foregoing, nothing contained in this Section 24 shall permit any waiver of any provision of Section 3(d).

25. DISPUTE RESOLUTION.

(a) Submission to Dispute Resolution.

(i) In the case of a dispute relating to a Closing Bid Price, a Closing Sale Price, a Conversion Price, an Installment Conversion Price, a Reallocation Conversion Price, an Acceleration Conversion Price, an Alternate Conversion Price, a VWAP or a fair market value or the arithmetic calculation of a Conversion Rate or the applicable Redemption Price (as the case may be) (including, without limitation, a dispute relating to the determination of any of the foregoing), the Company or the Holder (as the case may be) shall submit the dispute to the other party via electronic mail (A) if by the Company, within two (2) Business Days after the occurrence of the circumstances giving rise to such dispute or (B) if by 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 Closing Bid Price, such Closing Sale Price, such Conversion Price, such Installment Conversion Price, such Reallocation Conversion Price, such Acceleration Conversion Price, such Alternate Conversion Price, such VWAP or such fair market value, or the arithmetic calculation of such Conversion Rate or such applicable Redemption Price (as the case may be), at any time after the fifth (5th) 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 reasonably acceptable to the Company 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 25 and (B) written documentation supporting its position with respect to such dispute, in each case, no later than 5:00 p.m. (New York time) by the fifth (5th) Business Day immediately following the date on which 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 (unless such investment bank determines that the Holder’s claim in the dispute is without any merit, in which case such fees and expenses of such investment bank shall be borne by the Holder), and such investment bank’s resolution of such dispute shall be final and binding upon all parties absent manifest error.

(b) Miscellaneous. The Company expressly acknowledges and agrees that (i) this Section 25 constitutes an agreement to arbitrate between the Company and the Holder (and constitutes an arbitration agreement) under § 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 25, (ii) the terms of this Note 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 Note and any other applicable Transaction Documents, (iii) the Holder (and only the Holder), in its sole discretion, shall have the right to submit any dispute described in this Section 25 to any state or federal court sitting in The City of New York, Borough of Manhattan in lieu of utilizing the procedures set forth in this Section 25 and (iv) nothing in this Section 25 shall limit the Holder from obtaining any injunctive relief or other equitable remedies (including, without limitation, with respect to any matters described in this Section 25).

26. NOTICES; CURRENCY; PAYMENTS.

(a) Notices. Whenever notice is required to be given under this Note, 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 Note, including in reasonable detail a description of such action and the reason therefore. Without limiting the generality of the foregoing, the Company will give written notice to the Holder (i) immediately upon any adjustment of the Conversion Price, setting forth in reasonable detail, and certifying, the calculation of such adjustment and (ii) at least five (5) Trading Days prior to the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the Common Stock, (B) with respect to any grant, issuances, or sales of any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property to holders of shares of Common Stock or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation, provided 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.

(b) Currency. All dollar amounts referred to in this Note are in United States Dollars (“**U.S. Dollars**”), and all amounts owing under this Note 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 Note, the U.S. Dollar exchange rate as published in the Wall Street Journal on the relevant date of calculation (it being understood and agreed that where an amount is calculated with reference to, or over, a period of time, the date of calculation shall be the final date of such period of time).

(c) **Payments.** Whenever any payment of cash is to be made by the Company to any Person pursuant to this Note, unless otherwise expressly set forth herein, such payment shall be made in lawful money of the United States of America by a certified check drawn on the account of the Company and sent via overnight courier service to such Person at such address as previously provided to the Company in writing (which address, in the case of each of the Buyers, shall initially be as set forth on the Schedule of Buyers attached to the Securities Purchase Agreement), provided that the Holder may elect to receive a payment of cash via wire transfer of immediately available funds by providing the Company with prior written notice setting out such request and the Holder's wire transfer instructions. Whenever any amount expressed to be due by the terms of this Note is due on any day which is not a Business Day, the same shall instead be due on the next succeeding day which is a Business Day. Any amount of Outstanding Principal Value of this Note or other amounts due under the Transaction Documents which is not paid when due shall result in a late charge being incurred and payable by the Company in an amount equal to interest on such amount at the rate of eighteen percent (18%) per annum from the date such amount was due until the same is paid in full ("**Late Charge**").

39

27. **CANCELLATION.** After all of the Outstanding Value of this Note and other amounts at any time owed on this Note or any other Transaction Documents have been paid in full, this Note shall automatically be deemed canceled, shall be surrendered to the Company for cancellation and shall not be reissued.

28. **WAIVER OF NOTICE.** To the extent permitted by law, the Company hereby irrevocably waives demand, notice, presentment, protest and all other demands and notices in connection with the delivery, acceptance, performance, default or enforcement of this Note and the Securities Purchase Agreement.

29. **GOVERNING LAW.** This Note shall be construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Note shall be governed by, the internal laws of the State of New York, without giving effect to any choice of law or conflict of law 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. Except as otherwise required by Section 25 above, 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. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Nothing contained herein (i) 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 or (ii) shall limit, or shall be deemed or construed to limit, any provision of Section 25. **THE COMPANY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE TO, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH OR ARISING OUT OF THIS NOTE OR ANY TRANSACTION CONTEMPLATED HEREBY.**

30. **JUDGMENT CURRENCY.**

(a) If for the purpose of obtaining or enforcing judgment against the Company in any court in any jurisdiction it becomes necessary to convert into any other currency (such other currency being hereinafter in this Section 30 referred to as the "**Judgment Currency**") an amount due in U.S. dollars under this Note, the conversion shall be made at the Exchange Rate prevailing on the Trading Day immediately preceding:

(i) the date actual payment of the amount due, in the case of any proceeding in the courts of New York or in the courts of any other jurisdiction that will give effect to such conversion being made on such date: or

40

(ii) the date on which the foreign court determines, in the case of any proceeding in the courts of any other jurisdiction (the date as of which such conversion is made pursuant to this Section 30(a)(ii) being hereinafter referred to as the "**Judgment Conversion Date**").

(b) If in the case of any proceeding in the court of any jurisdiction referred to in Section 30(a)(ii) 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.

(c) Any amount due from the Company under this provision shall be due as a separate debt and shall not be affected by judgment being obtained for any other amounts due under or in respect of this Note.

31. **SEVERABILITY.** If any provision of this Note 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 Note so long as this Note 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).

32. **MAXIMUM PAYMENTS.** Without limiting Section 9(d) of the Securities Purchase Agreement, nothing contained herein shall be deemed to establish or require the payment of a rate of interest or other charges in excess of the maximum permitted by applicable law. In the event that the rate of interest required to be paid or other charges hereunder exceed the maximum permitted by such law, any payments in excess of such maximum shall be credited against amounts owed by the Company to the Holder and thus refunded to the Company.

33. **CERTAIN DEFINITIONS.** For purposes of this Note, 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.

41

(c) "**Acceleration Conversion Price**" means, with respect to any given Acceleration Date, the lower of (i) the Installment Conversion Price for such Current Installment Date related to such Acceleration Date and (ii) the greater of (x) the Floor Price and (y) 82.5% of the quotient of (I) the sum of the VWAP of the Common Stock for each of the two (2) Trading Days with the lowest VWAP of the Common Stock during the ten (10) consecutive Trading Day period ending and including the

Trading Day immediately prior to such Acceleration Date, divided by (II) two (2); provided, that with respect to any Deferral Amount subject to an Acceleration Conversion, the lowest Acceleration Conversion Price of any Installment Date in which such Deferral Amount has been Deferred hereunder, if lower than the Acceleration Conversion Price calculated above (each, a “**Current Acceleration Conversion Price**”), shall replace such Current Acceleration Conversion Price for any Acceleration Conversion of such Deferral Amount hereunder. All such determinations to be appropriately adjusted for any stock split, stock dividend, stock combination or other similar transaction during any such measuring period.

(d) “**Acceleration Floor Amount**” means an amount in cash, to be delivered by wire transfer of immediately available funds pursuant to wire instructions delivered to the Company by the Holder in writing, equal to the product obtained by multiplying (A) the higher of (I) the highest price that the Common Stock trades at on the Trading Day immediately preceding the relevant Acceleration Date with respect to such Acceleration and (II) the applicable Acceleration Conversion Price of such Acceleration Date and (B) the difference obtained by subtracting (I) the number of shares of Common Stock delivered (or to be delivered) to the Holder on the applicable Share Delivery Deadline with respect to such Acceleration from (II) the quotient obtain by dividing (x) the applicable Acceleration Amount that the Holder has elected to be the subject of the applicable Acceleration, by (y) the applicable Acceleration Conversion Price of such Acceleration Date without giving effect to clause (x) of such definition or clause (x) of the definition of the Installment Conversion Price, as applicable.

(e) “**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 25% 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.

(f) “**Alternate Conversion Event of Default**” means (i) four or more occurrences of Events of Default arising pursuant to either Section 4(a)(i) or Section 4(a)(ii), (ii) any Event of Default arising pursuant to Sections 4(a)(iii) through, and including, Section 4(a)(xiv), (iii) any Event of Default arising pursuant to Section 4(a)(xvi) or 4(a)(xvii), or (iv) any other Event of Default that remains uncured for a period of thirty (30) calendar days.

42

(g) “**Alternate Conversion Floor Amount**” means an amount in cash, to be delivered by wire transfer of immediately available funds pursuant to wire instructions delivered to the Company by the Holder in writing, equal to the product obtained by multiplying (A) the higher of (I) the highest price that the Common Stock trades at on the Trading Day immediately preceding the relevant Alternate Conversion Date and (II) the applicable Alternate Conversion Price and (B) the difference obtained by subtracting (I) the number of shares of Common Stock delivered (or to be delivered) to the Holder on the applicable Share Delivery Deadline with respect to such Alternate Conversion from (II) the quotient obtained by dividing (x) the applicable Conversion Amount that the Holder has elected to be the subject of the applicable Alternate Conversion, by (y) the applicable Alternate Conversion Price without giving effect to clause (x) of such definition.

(h) “**Alternate Conversion Price**” means, with respect to any Alternate Conversion that price which shall be the lower of (i) the applicable Conversion Price as in effect on the applicable Conversion Date of the applicable Alternate Conversion and (ii) the greater of (x) the Floor Price and (y) the lowest of (A) 80% of the VWAP of the Common Stock as of the Trading Day immediately preceding the delivery or deemed delivery of the applicable Conversion Notice, (B) 80% of the VWAP of the Common Stock as of the Trading Day immediately preceding the delivery or deemed delivery of the applicable Conversion Notice, (C) 80% of the VWAP of the Common Stock as of the Trading Day ended immediately prior to the time of occurrence of the applicable Alternate Conversion Event of Default and (D) 80% of the price computed as the quotient of (I) the sum of the VWAP of the Common Stock for each of the two (2) Trading Days with the lowest VWAP of the Common Stock during the ten (10) consecutive Trading Day period ending and including the Trading Day immediately preceding the delivery or deemed delivery of the applicable Conversion Notice, divided by (II) two (2) (such period, the “**Alternate Conversion Measuring Period**”). All such determinations to be appropriately adjusted for any stock dividend, stock split, stock combination, reclassification or similar transaction that proportionately decreases or increases the Common Stock during such Alternate Conversion Measuring Period.

(i) “**Applicable Closing Date**” shall have the meaning set forth in the Securities Purchase Agreement, which is the date of the closing under the Securities Purchase Agreement applicable to the issuance of this Note.

(j) “**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.

43

(k) “**Available Cash**” means, with respect to any date of determination, an amount equal to the aggregate amount of the Cash of the Company and its Subsidiaries (excluding for this purpose cash held in restricted accounts or otherwise unavailable for unrestricted use by the Company or any of its Subsidiaries for any reason) as of such date of determination held in bank accounts of financial banking institutions in the United States of America.

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

(m) “**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.

(n) “**Cash**” of the Company and its Subsidiaries on any date shall be determined from such Persons’ books maintained in accordance with GAAP, and means, without duplication, the cash, cash equivalents and Eligible Marketable Securities accrued by the Company and its wholly owned Subsidiaries on a consolidated basis on such date.

(o) “**Change of Control**” means any Fundamental Transaction other than (i) any merger of the Company or any of its, direct or indirect, wholly-owned Subsidiaries with or into any of the foregoing Persons, (ii) any reorganization, recapitalization or reclassification of the shares of Common Stock in which holders of the Company’s voting power immediately prior to such reorganization, recapitalization or reclassification continue after such reorganization, recapitalization or reclassification to hold publicly traded securities and, directly or indirectly, are, in all material respects, 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 (iii) pursuant to a migratory merger effected solely for the purpose of changing the jurisdiction of incorporation of the Company or any of its Subsidiaries.

(p) “**Change of Control Redemption Premium**” means 115%.

(q) “**Closing Date**” shall have the meaning set forth in the Securities Purchase Agreement, which date is the date the Company initially issued Notes pursuant to the terms of the Securities Purchase Agreement.

44

(r) “**Closing Bid Price**” and “**Closing Sale Price**” means, for any security as of any date, the last closing bid price and last closing trade price, respectively, for such security on the Principal Market, as reported by Bloomberg, or, if the Principal Market begins to operate on an extended hours basis and does not designate the closing bid price or the closing trade price (as the case may be) then the last bid price or last trade price, respectively, of such security prior to 4:00:00 p.m., New York time, as reported by Bloomberg, or, if the Principal Market is not the principal securities exchange or trading market for such security, the last closing bid price or last trade price, respectively, of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg, or if the foregoing do not apply, the last closing bid price or last trade price, respectively, of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no closing bid price or last trade price, respectively, is reported for such security by Bloomberg, the average of the bid prices, or the ask prices, respectively, of any market makers for such security as reported in The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices). If the Closing Bid Price or the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Bid Price or the Closing Sale Price (as the case may be) of such security on such date shall be the fair market value as mutually determined by the Company and the 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 25. All such determinations shall be appropriately adjusted for any stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions during such period.

(s) “**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.

(t) “**Conversion Floor Price Condition**” means that the relevant Alternate Conversion Price, Acceleration Conversion Price (including any Installment Conversion Price referred to therein), Reallocation Conversion Price or Installment Conversion Price, as applicable, is being determined based on clause (x) of such definitions.

(u) “**Conversion Installment Floor Amount**” means an amount in cash, to be delivered by wire transfer of immediately available funds pursuant to wire instructions delivered to the Company by the Holder in writing, equal to the product obtained by multiplying (A) the higher of (I) the highest price that the Common Stock trades at on the Trading Day immediately preceding the relevant Installment Date and (II) the applicable Installment Conversion Price and (B) the difference obtained by subtracting (I) the number of shares of Common Stock delivered (or to be delivered) to the Holder on the applicable Installment Date with respect to such Installment Conversion from (II) the quotient obtain by dividing (x) the applicable Installment Amount subject to such Installment Conversion, by (y) the applicable Installment Conversion Price without giving effect to clause (x) of such definition.

(v) “**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.

(w) “**Current Subsidiary**” means any Person in which the Company on the Subscription Date, directly or indirectly, (i) owns at least 20% of the outstanding capital stock or holds at least 20% of the outstanding equity or similar interest of such Person or (ii) controls the business, operations or administration of such Person, and all of the foregoing, collectively, “**Current Subsidiaries**”.

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

(y) “**Eligible Marketable Securities**” as of any date means marketable securities which would be reflected on a consolidated balance sheet of the Company and its Subsidiaries prepared as of such date in accordance with GAAP, and which are permitted under the Company’s investment policies as in effect on the Issuance Date or approved thereafter by the Company’s Board of Directors.

45

(z) “**Equity Conditions**” means, with respect to an given date of determination: (i) on each day during the period beginning thirty calendar days prior to such applicable date of determination and ending on and including such applicable date of determination (or, with respect to the initial Installment Date, during the period beginning on the Initial Installment Notice Due Date and ending on and including the initial Installment Date) either (x) one or more Registration Statements filed pursuant to the Registration Rights Agreement shall be effective and the prospectus contained therein shall be available on such applicable date of determination (with, for the avoidance of doubt, any shares of Common Stock previously sold pursuant to such prospectus deemed unavailable) for the resale of all shares of Common Stock to be issued in connection with the event requiring this determination (or issuable upon conversion of the Conversion Amount being redeemed, as applicable, in the event requiring this determination at the Alternate Conversion Price then in effect (without regard to any limitations on conversion set forth herein)) (each, a “**Required Minimum Securities Amount**”), in each case, in accordance with the terms of the Registration Rights Agreement and there shall not have been during such period any Grace Periods (as defined in the Registration Rights Agreement) or (y) all Registrable Securities shall be eligible for sale pursuant to Rule 144 (as defined in the Securities Purchase Agreement) without the need for registration under any applicable federal or state securities laws (in each case, disregarding any limitation on conversion of (or other issuance of securities with respect to) the Notes) and no Current Information Failure (as defined in the Registration Rights Agreement) exists or is continuing; (ii) on each day during the period beginning thirty calendar days prior to the applicable date of determination and ending on and including the applicable date of determination (the “**Equity Conditions Measuring Period**”), the Common Stock (including all Registrable Securities) is listed or designated for quotation (as applicable) on an Eligible Market and shall not have been suspended from trading on an Eligible Market (other than suspensions of not more than two (2) days and occurring prior to the applicable date of determination due to business announcements by the Company) nor shall delisting or suspension by an Eligible Market have been threatened or likely to occur or pending as evidenced by (A) a writing by such Eligible Market or (B) the Company falling below the minimum listing maintenance requirements of the Eligible Market on which the Common Stock is then listed or designated for quotation (as applicable); (iii) during the Equity Conditions Measuring Period, the Company shall have delivered all shares of Common Stock issuable upon conversion of this Note on a timely basis as set forth in Section 3 hereof and all other shares of capital stock required to be delivered by the Company on a timely basis as set forth in the other Transaction Documents; (iv) any shares of Common Stock to be issued in connection with the event requiring determination (or issuable upon conversion of the Conversion Amount being redeemed in the event requiring this determination) may be issued in full without violating Section 3(d) hereof; (v) any shares of Common Stock to be issued in connection with the event requiring determination (or issuable upon conversion of the Conversion Amount being redeemed in the event requiring this determination (without regards to any limitations on conversion set forth herein)) may be issued in full without violating the rules or regulations of the Eligible Market on which the Common Stock is then listed or designated for quotation (as applicable); (vi) on each day during the Equity Conditions Measuring Period, no public announcement of a pending, proposed or intended Fundamental Transaction shall have occurred which has not been abandoned, terminated or consummated; (vii) the Company shall have no knowledge of any fact that would reasonably be expected to cause (1) any Registration Statement required to be filed pursuant to the Registration Rights Agreement to not be effective or the prospectus contained therein to not be available for the resale of the applicable Required Minimum Securities Amount of Registrable Securities in accordance with the terms of the Registration Rights Agreement or (2) any Registrable Securities to not be eligible for sale pursuant to Rule 144 (assuming the Holder is not an affiliate of the Company) without the need for registration under any applicable federal or state securities laws (in each case, disregarding any limitation on conversion of (or other issuance of securities with respect to) the Notes) and no Current Information Failure exists or is continuing; (viii) the Holder shall not be in (and no other holder of Notes shall be in) possession of any material, non-public information provided to any of them by the Company, any of its Subsidiaries or any of their respective affiliates, employees, officers, representatives, agents or the like; (ix) on each day during the Equity Conditions Measuring Period, the Company otherwise shall have been in

compliance with each, and shall not have breached any representation or warranty in any material respect (other than representations or warranties subject to material adverse effect or materiality, which may not be breached in any respect) or any covenant or other term or condition of any Transaction Document, including, without limitation, the Company shall not have failed to timely make any payment pursuant to any Transaction Document; (x) there shall not have occurred any Volume Failure or Price Failure as of such applicable date of determination; (xi) on the applicable date of determination (A) no Authorized Share Failure shall exist or be continuing and the applicable Required Minimum Securities Amount of shares of Common Stock are available under the certificate of incorporation of the Company and reserved by the Company to be issued pursuant to the Notes and (B) all shares of Common Stock to be issued in connection with the event requiring this determination (or issuable upon conversion of the Conversion Amount being redeemed in the event requiring this determination (without regards to any limitations on conversion set forth herein)) may be issued in full without resulting in an Authorized Share Failure; (xii) on each day during the Equity Conditions Measuring Period, there shall not have occurred and there shall not exist an Event of Default (as defined in the Notes) or an event that with the passage of time or giving of notice would constitute an Event of Default (regardless of whether the Holder has submitted an Event of Default Redemption Notice); (xiii) no bona fide dispute shall exist, by and between any holder of Notes, the Company, the Principal Market (or such applicable Eligible Market in which the Common Stock of the Company is then principally trading) and/or FINRA with respect to any term or provision of any Note or any other Transaction Document and (xiv) the shares of Common Stock issuable pursuant the event requiring the satisfaction of the Equity Conditions are duly authorized and listed and eligible for trading without restriction on an Eligible Market.

46

(aa) **“Equity Conditions Failure”** means that on the applicable date of determination, the Equity Conditions have not been satisfied (or waived in writing by the Holder).

(bb) **“Fiscal Quarter”** means each of the fiscal quarters adopted by the Company for financial reporting purposes that correspond to the Company’s fiscal year as of the date hereof that ends on December 31.

(cc) **“Fiscal Year”** means the fiscal year adopted by the Company for financial reporting purposes as of the date hereof that ends on December 31.

(dd) **“Floor Price”** means \$ \square ¹ (or such lower amount as permitted, from time to time, by the Principal Market), subject to adjustment for stock splits, stock dividends, stock combinations, recapitalizations or other similar events.

(ee) **“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 and its Significant Subsidiaries 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 Note calculated as if any shares of Common Stock held by all such Subject Entities were not outstanding, or (z) a percentage of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock or other equity securities of the Company sufficient to allow such Subject Entities to effect a statutory short form merger or other transaction requiring other stockholders of the Company to surrender their shares of Common Stock without approval of the stockholders 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.

¹ Note to Draft: To be 20% of the lower of (x) the average of the closing prices of the Common Stock during the five Trading Days immediately prior to the time of execution of the Securities Purchase Agreement and (y) the closing price of the Common Stock as of the Trading Day ended immediately prior to the time of execution of the Securities Purchase Agreement.

47

(ff) **“GAAP”** means United States generally accepted accounting principles, consistently applied.

(gg) **“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.

(hh) **“Holder Pro Rata Amount”** means a fraction (i) the numerator of which is the original Principal amount of this Note on the Closing Date and (ii) the denominator of which is the aggregate original principal amount of all Notes issued to the initial purchasers pursuant to the Securities Purchase Agreement on the Closing Date.

(ii) **“Indebtedness”** shall have the meaning ascribed to such term in the Securities Purchase Agreement.

(jj) **“Initial Installment Notice Due Date”** means the eleventh (11th) Trading Day prior to the initial Installment Date.

(kk) **“Installment Amount”** means the sum of (A) (i) with respect to any Installment Date other than the Maturity Date, the lesser of (x) the quotient of (I) the Outstanding Principal Value of this Note as of the initial Installment Date, divided by (II) the number of Installment Dates occurring hereunder (as determined as of the initial Installment Date assuming no Deferrals, Reallocations, Accelerations, redemptions or conversions hereunder prior to the Maturity Date) and (y) Outstanding Principal Value of this Note as of such Installment Date, and (ii) with respect to the Installment Date that is the Maturity Date, the Outstanding Principal Value of this Note then outstanding under this Note as of such Installment Date (in each case, as any such Installment Amount may be reduced pursuant to the terms of this Note, whether upon conversion, redemption or Deferral), (B) any Deferral Amount deferred pursuant to Section 8(d) and included in such Installment Amount in accordance therewith, (C) any Acceleration Amount accelerated pursuant to Section 8(e) and included in such Installment Amount in accordance therewith and (D) in each case of clauses (A) through (C) above, the sum of any accrued and unpaid Interest as of such Installment Date under this Note, if any, and accrued and unpaid Late Charges, if

any, under this Note as of such Installment Date. In the event the Holder shall sell or otherwise transfer any portion of this Note, the transferee shall be allocated a pro rata portion of the each unpaid Installment Amount hereunder.

(ll) **“Installment Conversion Price”** means, with respect to a particular date of determination, the lower of (i) the Conversion Price then in effect, and (ii) the greater of (x) the Floor Price and (y) 82.5% of the quotient of (A) the sum of the VWAP of the Common Stock for each of the two (2) Trading Days with the lowest VWAP of the Common Stock during the ten (10) consecutive Trading Day period ending and including the Trading Day immediately prior to the applicable Installment Date, divided by (B) two (2). All such determinations to be appropriately adjusted for any stock split, stock dividend, stock combination or other similar transaction during any such measuring period.

(mm) **“Installment Date”** means (i) September [], 2023², (ii) then, bi-monthly on each of the first and tenth Trading Days of each calendar month thereafter until the Maturity Date and (iii) the Maturity Date.

(nn) **“Interest Date”** means, with respect to any given calendar month, (x) if prior to the initial Installment Date or after the Maturity Date, the first Trading Day of such calendar month or (y) if on or after the initial Installment Date, but on or prior to the Maturity Date, such Installment Date, if any, in such calendar month.

(oo) **“Interest Rate”** means 7.875% per annum, as may be adjusted from time to time in accordance with Section 2.

(pp) **“Investment”** means any beneficial ownership (including stock, partnership or limited liability company interests) of or in any Person, or any loan, advance or capital contribution to any Person or the acquisition of all, or substantially all, of the assets of another Person or the purchase of any assets of another Person for greater than the fair market value of such assets.

(qq) **“Make-Whole Amount”** means, as of any given date and as applicable, in connection with any conversion, redemption or other repayment hereunder, an amount equal to the amount of additional Interest that would accrue under this Note at the Interest Rate then in effect assuming for calculation purposes that the Outstanding Principal Value of this Note as of the Applicable Closing Date remained outstanding through and including the Maturity Date.

(rr) **“Market Capitalization”** means, as of any date of determination, the product of (x) the shares of Common Stock outstanding as reported on the most recent 10-Q, 10-K or 8-K (as applicable) (y) the VWAP of the Common Stock on such date of determination.

² Note to Draft: To be the six-month anniversary of the applicable closing date.

(ss) **“Maturity Date”** shall mean March [], 2025³; provided, however, the Maturity Date may be extended at the option of the Holder (i) in the event that, and for so long as, an Event of Default shall have occurred and be continuing or any event shall have occurred and be continuing that with the passage of time and the failure to cure would result in an Event of Default or (ii) through the date that is twenty (20) Business Days after the consummation of a Fundamental Transaction in the event that a Fundamental Transaction is publicly announced or a Change of Control Notice is delivered prior to the Maturity Date, provided further that if a Holder elects to convert some or all of this Note pursuant to Section 3 hereof, and the Conversion Amount would be limited pursuant to Section 3(d) hereunder, the Maturity Date shall automatically be extended until such time as such provision shall not limit the conversion of this Note.

(tt) **“New Significant Subsidiary”** means any New Subsidiary that is a Significant Subsidiary (as defined in the Securities Purchase Agreement).

(uu) **“New Subsidiary”** means, as of any date of determination, any Person in which the Company after the Subscription Date, directly or indirectly, (i) owns at least 20% of the outstanding capital stock or holds at least 20% of the outstanding equity or similar interest of such Person or (ii) controls the business, operations or administration of such Person, and all of the foregoing, collectively, **“New Subsidiaries”**.

(vv) **“Options”** means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.

(ww) **“Outstanding Principal Value”** as of any time of determination, means all outstanding Principal of this Note as of such time of determination.

(xx) **“Outstanding Value”** means, as of any time of determination, the sum of (i) the Outstanding Principal Value of this Note, (ii) accrued and unpaid Interest, and (iii) accrued and unpaid Late Charges (as defined in Section 26(c)) on such Outstanding Principal Value and Interest, in each case, as of such time of determination.

(yy) **“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.

(zz) **“PAVmed”** means PAVmed Inc., a Delaware corporation.

(aaa) **“Permitted Indebtedness”** means (i) Indebtedness evidenced by this Note and the Other Notes, (ii) Indebtedness set forth on Schedule 3(s) to the Securities Purchase Agreement, as in effect as of the Subscription Date (excluding any Permitted Intercompany Indebtedness), (iii) Indebtedness secured by Permitted Liens or unsecured but as described in clauses (iv) and (v) of the definition of Permitted Liens, (iv) Permitted Insurance Indebtedness, and (v) up to \$12,000,000 of Permitted Intercompany Indebtedness.

(bbb) **“Permitted Insurance Indebtedness”** means Indebtedness in respect of the financing of insurance premiums in a manner consistent with past practice.

³ Note to Draft: To be the two-year anniversary of the applicable closing date.

(ccc) **“Permitted Intercompany Indebtedness”** means Indebtedness incurred by any Subsidiary owed to the Company, which Indebtedness was incurred for working capital purposes.

(ddd) **“Permitted Liens”** means (i) any Lien for taxes not yet due or delinquent or being contested in good faith by appropriate proceedings for which adequate reserves have been established in accordance with GAAP, (ii) any statutory Lien arising in the ordinary course of business by operation of law with respect to a liability that is not yet due or delinquent, (iii) any Lien created by operation of law, such as materialmen’s liens, mechanics’ liens and other similar liens, arising in the ordinary course of business with respect to a liability that is not yet due or delinquent or that are being contested in good faith by appropriate proceedings, (iv) Liens (A) upon or

in any equipment acquired or held by the Company or any of its Subsidiaries to secure the purchase price of such equipment or Indebtedness incurred solely for the purpose of financing the acquisition or lease of such equipment, or (B) existing on such equipment at the time of its acquisition, provided that the Lien is confined solely to the property so acquired and improvements thereon, and the proceeds of such equipment, in either case, with respect to Indebtedness in an aggregate amount not to exceed \$100,000, (v) Liens incurred in connection with the extension, renewal or refinancing of the Indebtedness secured by Liens of the type described in clause (iv) above, provided that any extension, renewal or replacement Lien shall be limited to the property encumbered by the existing Lien and the principal amount of the Indebtedness being extended, renewed or refinanced does not increase, (vi) Liens in favor of customs and revenue authorities arising as a matter of law to secure payments of custom duties in connection with the importation of goods, (vii) Liens securing Indebtedness in respect of the financing of insurance premiums in a manner consistent with past practice or Indebtedness that constitutes Permitted Indebtedness under clause (iv) of the definition thereof, and (viii) Liens arising from judgments, decrees or attachments in circumstances not constituting an Event of Default under Section 4(a)(xii).

(eee) **"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.

(fff) **"Price Failure"** means, with respect to a particular date of determination, if either (I) the VWAP of the Common Stock on any Trading Day during the five (5) Trading Day period ending on the Trading Day immediately preceding such date of determination or (II) the VWAP of the Common Stock on at least five (5) Trading Days during the twenty (20) Trading Day period ending on the Trading Day immediately preceding such date of determination, in either case, fails to exceed \$1.00 (as adjusted for stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions occurring after the Subscription Date). All such determinations to be appropriately adjusted for any stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions during any such measuring period.

51

(ggg) **"Principal Market"** means the Nasdaq Capital Market.

(hhh) **"Reallocation Conversion Price"** means, with respect to a particular date of determination, the lower of (i) the Conversion Price then in effect, and (ii) the lower of (I) the Installment Conversion Price for such applicable Installment Period, and (II) the greater of (x) the Floor Price and (y) 82.5% of the quotient of (A) the sum of the VWAP of the Common Stock for each of the two (2) Trading Days with the lowest VWAP of the Common Stock during the ten (10) consecutive Trading Day period ending and including the Trading Day immediately prior to the applicable Reallocation Date, divided by (B) two (2). All such determinations to be appropriately adjusted for any stock split, stock dividend, stock combination or other similar transaction during any such measuring period.

(iii) **"Reallocation Floor Amount"** means an amount in cash, to be delivered by wire transfer of immediately available funds pursuant to wire instructions delivered to the Company by the Holder in writing, equal to the product obtained by multiplying (A) the higher of (I) the highest price that the Common Stock trades at on the Trading Day immediately preceding the relevant Reallocation Date with respect to such Reallocation and (II) the applicable Reallocation Conversion Price of such Reallocation Date and (B) the difference obtained by subtracting (I) the number of shares of Common Stock delivered (or to be delivered) to the Holder on the applicable Share Delivery Deadline with respect to such Reallocation from (II) the quotient obtain by dividing (x) the applicable Reallocation Amount that the Holder has elected to be the subject of the applicable Reallocation, by (y) the applicable Reallocation Conversion Price of such Reallocation Date without giving effect to clause (x) of such definition or clause (x) of the definition of the Installment Conversion Price, as applicable.

(jjj) **"Redemption Notices"** means, collectively, the Event of Default Redemption Notices, the Installment Notices with respect to any Installment Redemption, the Company Optional Redemption Notices, the Subsequent Placement Optional Redemption Notices and the Change of Control Redemption Notices, and each of the foregoing, individually, a **"Redemption Notice."**

(kkk) **"Redemption Premium"** means 132.5%.

(lll) **"Redemption Prices"** means, collectively, Event of Default Redemption Prices, the Change of Control Redemption Prices, the Installment Redemption Prices, the Subsequent Placement Optional Redemption Prices and the Company Optional Redemption Prices, and each of the foregoing, individually, a **"Redemption Price."**

(mmm) **"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 Notes relating to, among other things, the registration of the resale of the Common Stock issuable upon conversion of (or other issuance of securities with respect to) the Notes, as may be amended from time to time.

52

(nnn) **"Remaining Option Value"** means, as of any time of determination, the remaining option value of this Note as of such time of determination 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 Closing Sale Price of the Common Stock on the Trading Day ended immediately preceding such time of determination, (ii) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the remaining term of this Note, (iii) a zero cost of borrow and (iv) an expected volatility equal to the greater of 100% and the 100 day volatility obtained from the "HVT" function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day ended immediately preceding such time of determination.

(ooo) **"SEC"** means the United States Securities and Exchange Commission or the successor thereto.

(ppp) **"Securities Purchase Agreement"** means that certain securities purchase agreement, dated as of the Subscription Date, by and among the Company and the initial holders of the Notes pursuant to which the Company issued the Notes, as may be amended from time to time.

(qqq) **"Security Agreement"** shall have the meaning as set forth in the Securities Purchase Agreement.

(rrr) **"Subscription Date"** means March [], 2023.

(sss) **"Subject Entity"** means any Person, Persons or Group or any Affiliate or associate of any such Person, Persons or Group.

(ttt) **"Subsidiaries"** means, as of any date of determination, collectively, all Current Subsidiaries and all New Subsidiaries, and each of the foregoing, individually, a **"Subsidiary."**

(uuu) **"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.

(vvv) **"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 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.

(www) "**Volume Failure**" means, with respect to a particular date of determination, if either (I) the aggregate daily dollar trading volume (as reported on Bloomberg) of the Common Stock on the Principal Market on any Trading Day during the five (5) Trading Day period ending on the Trading Day immediately preceding such date of determination or (II) the aggregate daily dollar trading volume (as reported on Bloomberg) of the Common Stock on the Principal Market on at least five (5) Trading Days during the twenty (20) Trading Day period ending on the Trading Day immediately preceding such date of determination (such period, the "**Volume Failure Measuring Period**"), is less than \$200,000 (as adjusted for any stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions occurring after the Subscription Date).

(xxx) "**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 25. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination, recapitalization or other similar transaction during such period.

34. **DISCLOSURE.** Upon 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 Note, 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 within one (1) Business Day of such receipt or prior to (or simultaneous with) such delivery, as applicable, 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 34 shall limit any obligations of the Company, or any rights of the Holder, under Section 4(I) of the Securities Purchase Agreement.

35. **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.

[signature page follows]

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

LUCID DIAGNOSTICS INC.

By: _____
Name: Lishan Aklog, MD
Title: Chairman and Chief
Executive Officer

Senior Convertible Note - Signature Page

SECURITIES PURCHASE AGREEMENT

This **SECURITIES PURCHASE AGREEMENT** (the “**Agreement**”), dated as of March 13, 2023, is by and among Lucid Diagnostics Inc., a Delaware corporation with offices located at 360 Madison Avenue, 25th Floor, New York, NY 10017 (the “**Company**”), and each of the investors listed on the Schedule of Buyers attached 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. The Company has authorized a new series of senior secured convertible notes of the Company, in the aggregate original principal amount of \$11,111,110, substantially in the form attached hereto as **Exhibit A** (the “**Notes**”), which Notes shall be convertible into shares of Common Stock (as defined below) (the shares of Common Stock issuable pursuant to the terms of the Notes, including, without limitation, upon conversion or otherwise, collectively, the “**Conversion Shares**”), in accordance with the terms of the Notes.

C. Each Buyer wishes to purchase, and the Company wishes to sell, upon the terms and conditions stated in this Agreement, a Note in the aggregate original principal amount set forth opposite such Buyer’s name in column (3) on the Schedule of Buyers.

D. At the Closing, the parties hereto shall execute and deliver a Registration Rights Agreement, in a form to be mutually agreed upon (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.

E. The Notes and the Conversion Shares are collectively referred to herein as the “**Securities**.”

F. The Notes will rank senior to all outstanding and future indebtedness of the Company, and its Subsidiaries (as defined below) the Notes will be secured by a first priority perfected security interest in all of the existing and future assets of the Company and its direct and indirect Subsidiaries, including a pledge of all of the capital stock of each of the Subsidiaries, as evidenced by (i) a security agreement in the form attached hereto as **Exhibit B** (the “**Security Agreement**”), (ii) account control agreements with respect to certain accounts described in the Note and the Security Agreement, in form and substance acceptable to each Buyer, duly executed by the Company and each depository bank (each, an “**Controlled Account Bank**”) in which each such account is maintained (the “**Controlled Account Agreements**”, and together with the Security Agreement, the Perfection Certificate (as defined below) and the other security documents and agreements entered into in connection with this Agreement and each of such other documents and agreements, as each may be amended or modified from time to time, collectively, the “**Security Documents**”), and (iii) a guaranty executed by each Subsidiary of the Company, in the form attached hereto as **Exhibit C** (collectively, the “**Guaranties**”) pursuant to which each of them guarantees the obligations of the Company under the Transaction Documents (as defined below).]

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 NOTES.

(a) **Purchase of Notes.** 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) a Note in the original principal amount as is set forth opposite such Buyer’s name in column (3) on the Schedule of Buyers.

(b) **Closing.** The closing (the “**Closing**”) of the purchase of the Notes 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 Notes to be purchased by each Buyer (the “**Purchase Price**”) shall be the amount set forth opposite such Buyer’s name in column (4) on the Schedule of Buyers.

(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 Notes 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 Note in the aggregate original principal amount as is set forth opposite such Buyer’s name in column (3) of the Schedule of Buyers, duly executed on behalf of the Company and registered in the name of such Buyer or its designee.

2. BUYER’S REPRESENTATIONS AND WARRANTIES.

Each Buyer, severally and not jointly, represents and warrants to the Company 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 Note, and (ii) upon conversion of its Note will acquire the Conversion Shares issuable upon

conversion 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 reviewed the Transaction Documents and the Company’s SEC filings and have been afforded the opportunity to ask questions of the Company and have received answers from the Company concerning the terms and conditions of the offering of the Securities, the merits and risks of investing in the Securities and the business, finances and operations 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 and such Buyer has only relied on such representations and warranties. 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.

3

(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 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.

4

(j) No Group. Other than affiliates of such Buyer who are also Buyers under this Agreement and are identified as such on the Schedule of Buyers, such Buyer is not under common control with or acting in concert with any other Buyer and is not part of a “group” for purposes of the 1934 Act.

(k) Residency. Such Buyer is a resident of that jurisdiction specified below its address on the Schedule of Buyers.

3. REPRESENTATIONS AND WARRANTIES OF THE COMPANY.

The Company represents and warrants to each of the Buyers 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 (as defined below) 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 Significant Subsidiary (as defined below), individually or taken as a whole, (ii) the transactions contemplated hereby or in any of the other Transaction Documents (as defined below) 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 Significant Subsidiaries to perform any of their respective obligations under any of the Transaction Documents. Other than the Persons (as defined below) set forth on Schedule 3(a), the Company has no Significant Subsidiaries. “**Subsidiaries**” means any Person in which the Company, directly or indirectly, (I) owns at least 20% of the outstanding capital stock or holds at least 20% of the outstanding equity or similar interest of such Person or (II) controls the business, operations or administration of such Person, and each of the foregoing, is individually referred to herein as a “**Subsidiary**.” “**Significant Subsidiary**” means LucidDx Labs Inc., a Delaware corporation (“**LucidDx Labs**”), and any other Subsidiary that would be a “significant subsidiary” as defined in Article 1, Rule 1-02 of Regulation S-X, promulgated pursuant to the 1933 Act. The Company hereby represents that no Subsidiary that is not a Significant Subsidiary (x) owns or holds any material assets, (y) has incurred or guaranteed any material Indebtedness (as defined below) or (z) has any outstanding Liens with respect to any of the foregoing.

(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 Notes and the reservation for issuance and issuance of the Conversion Shares issuable upon conversion of the Notes) 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 (i) the obtaining of the Stockholder Approval (as defined below), (ii) the filing with the SEC of (A) the applicable 8-K Filing (as defined below), (B) one or more Registration Statements in accordance with the requirements of the Registration Rights Agreement, and (C) a Form D and (iii) the making any other filings as may be required by any state securities agencies) (collectively, the "**Required Approvals**") 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. Prior to the Closing, the Transaction Documents to which each Subsidiary is a party will be duly executed and delivered by each such Subsidiary, and shall constitute the legal, valid and binding obligations of each such Subsidiary, enforceable against each such Subsidiary in accordance with their 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 Notes, the Security Documents, the Guarantees, the Registration Rights Agreement, Voting Agreement (as defined below), 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 Notes 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 for issuance pursuant to the Notes (i) prior to the Stockholder Approval Date, 9,259,953 shares of Common Stock¹, and (ii) from and after the Stockholder Approval Date, not less than the maximum number of Conversion Shares issuable upon conversion of the Notes (assuming for purposes hereof that (x) the Notes are convertible at the Floor Price (as defined in the Notes), (y) interest on the Notes shall accrue through the second anniversary of the Closing Date and will be converted in shares of Common Stock at a conversion price equal to the Floor Price and (z) any such conversion shall not take into account any limitations on the conversion of the Notes set forth in the Notes). Upon issuance or conversion in accordance with the Notes, the Conversion 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 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 Notes and the Conversion Shares and the reservation for issuance of the Conversion 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, except in the case of (ii) and (iii) for any conflict, default, right or violation that would not reasonably be expected to result in a Material Adverse Effect. As of the date hereof (and as of the Closing Date), the aggregate Exchange Cap (as defined in the Notes) available solely for the issuance of Conversion Shares (and not subject to reduction by the issuance of any other securities of the Company whether pursuant to any Convertible Security outstanding as of such date of determination, any other agreement with the Company and any other Person outstanding as of such date of determination or otherwise) is 9,259,953.

¹ Note to Draft: This represents the number of shares issuable without exceeding the 19.99% exchange cap.

(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 Required Approvals), 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 agent's 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. 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. 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.

8

(h) No Integrated Offering. Except as disclosed on Schedule 3(h), 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 (other than the Notes).

(i) Dilutive Effect. The Company understands and acknowledges that the number of Conversion Shares will increase in certain circumstances. The Company further acknowledges that its obligation to issue the Conversion Shares pursuant to the terms of the Notes in accordance with this Agreement and the Notes is, in each case, 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. For avoidance of doubt, a staggered board of directors shall not be an arrangement required to be rendered inapplicable for purposes of the foregoing.

9

(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**"); reports filed in compliance with the time periods specified in Rule 12b-25 promulgated under the 1934 Act shall be considered timely for this purpose. 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, currently 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 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 Financial 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. Except as set forth in the SEC Documents, 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. Except as set forth in the SEC Documents, 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.

10

(m) No Undisclosed Events, Liabilities, Developments or Circumstances Except as set forth in the SEC Documents or as otherwise disclosed in writing to Buyer, 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) has had, or would be reasonably expected to have, a material adverse effect on any Buyer's investment hereunder or (iii) has had, or would be reasonably expected to 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 violations which have not had, and would not reasonably be expected to have, individually or in the aggregate, 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) except as disclosed in the SEC Documents, 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.

11

(o) Foreign Corrupt Practices None of the Company, any of the Company's subsidiaries or any director, officer, agent, employee, nor, to the knowledge of the Company, 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.

12

(q) Transactions With Affiliates. Except as disclosed on Schedule 3(q), no current or former employee, partner, director, officer or stockholder of the Company or its Subsidiaries, or, to the knowledge of the Company, any affiliate of any thereof, or, to the knowledge of the Company, any member of the immediate family of any of the foregoing, is presently (or in the last twelve months has 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 Notes)), 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 or consulting or director fees 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 in connection with the administration of the Company's employee stock purchase plan and 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 have been or 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) 100,000,000 shares of Common Stock, of which, 46,322,927 are issued and outstanding and 12,644,000 shares are reserved for issuance pursuant to Convertible Securities (as defined below) (other than the Notes) exercisable or exchangeable for, or convertible into, shares of Common Stock and (B) 20,000,000 shares of Preferred Stock, 13,625 of which are issued and outstanding. No shares of Common Stock are held in the treasury of the Company. "**Convertible Securities**" means any capital stock or other security of the Company or, as the context may require, 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

(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(r)(iii) sets forth the number of shares of Common Stock that are (A) reserved for issuance pursuant to Convertible Securities (other than the Notes) 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 Convertible Securities, 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 Convertible Securities and the material rights of the holders thereof in respect thereto.

(s) Indebtedness and Other Contracts. Neither the Company nor any of its Subsidiaries, except as disclosed on Schedule 3(s), (i) 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 bound, (ii) is a party to any contract, agreement or instrument, any reasonably expected violation of which, or reasonably expected default under which, by the other party(ies) to such contract, agreement or instrument would 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 be reasonably likely to 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 reasonably likely 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, would not be reasonably likely to 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 (as defined below) in respect of indebtedness or obligations of others of the kinds referred to in clauses (A) through (G) above; (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 and (z) “**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.

(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 that if adversely determined would have a Material Adverse Effect, except as set forth in Schedule 3(t). To the knowledge of the Company, 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. 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 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. Except as set forth in the SEC Documents, no executive officer (as defined in Rule

501(f) promulgated under the 1933 Act) 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 of the Company or any of its Subsidiaries is, or is expected to be at this time, 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 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) Potential Products; FDA; EMEA.

(i) Except as described in the SEC Documents, 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, medical devices 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. Except as described in the SEC Documents, 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) Except to the extent disclosed in the SEC Documents, 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 medical device of the Company described in the SEC Documents (each a "**Potential Product**") is reasonably likely to 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 reasonably likely to be required, requested or being implemented; (iii) one or more clinical studies for any Potential Product is reasonably likely to 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 or is reasonably likely to 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 would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(iii) Except to the extent disclosed in the SEC Documents, 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, be reasonably likely to have a Material Adverse Effect. The descriptions of the results of such tests and trials contained in the SEC Documents are complete and accurate in all material respects such that there would be no untrue statement of a material fact or omission of a material fact necessary to make the statements in the SEC Documents, in light of the circumstances under which they are made, not misleading. 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 that are described or referred to in the SEC Documents. Except to the extent disclosed in the SEC Documents, 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, be reasonably likely to have a Material Adverse Effect. Except to the extent disclosed in the SEC Documents, 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 EMA 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.

(y) 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 the patents both (x) owned by the Company or any of its Subsidiaries and (y) currently used (or proposed to be used) in the business of the Company or any of its Subsidiaries is listed on Schedule 3(y)(i) (the "**Material Intellectual Property Rights**"). Except as set forth in Schedule 3(y)(ii), none of the Company's Material 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 other than any such expirations or terminations that, individually or in the aggregate, are not reasonably likely to have a Material Adverse Effect. The Company does not have any knowledge of any infringement by the Company or its Subsidiaries of Material Intellectual Property Rights of others which infringement is reasonably likely to have a Material Adverse Effect. 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, which claim, action or proceeding would reasonably be expected to result in a Material Adverse Effect. 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 and confidentiality of all of the Material Intellectual Property Rights.

(z) 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 or so receive such approvals would 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.

19

(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 be reasonably expected to have a Material Adverse Effect.

(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.

(aa) 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.

(bb) 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 in each case except as would not reasonably be expected to have a Material Adverse Effect. 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**”). So long as the Holder together with the other Attribution Parties (as defined in the Notes) collectively do not own in excess of the Maximum Percentage (as defined in the Notes) of the shares of Common Stock outstanding, 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, and 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.

20

(cc) 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 (which significant deficiency has not been subsequently resolved) in any part of the internal controls over financial reporting of the Company or any of its Subsidiaries.

(dd) 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 would be reasonably likely to have a Material Adverse Effect.

(ee) 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.

(ff) 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 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 Conversion 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 Notes or any other Transaction Document or any of the documents executed in connection herewith or therewith.

21

(gg) 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, (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 (other than financial advisors in connection with bona fide capital markets activities) 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.

(hh) 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.

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

(jj) 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.

22

(kk) Bank Holding Company Act; Regulation T, U or X

(i) 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.

(ii) The sale of the Notes, the use of proceeds thereof and the other transactions contemplated thereby or by the other Transaction Documents, will not violate or be inconsistent with the provisions of Regulation T, U or X of the Board of Governors of the Federal Reserve System of the United States

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

(mm) 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.

(nn) 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.

(oo) Management. Except as set forth in Schedule 3(oo) hereto, during the past two year period, no current or, to the knowledge of the Company, 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;

23

(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.

(pp) Stock Option Plans. Except as set forth in the SEC Documents or on Schedule 3(pp), 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.

24

(qq) 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 would be reasonably likely to 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.

(rr) 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.

(ss) Other Covered Persons. The Company is not aware of any Person 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.

(tt) 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.

(uu) 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.

(vv) 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.

(ww) Ranking of Notes. No Indebtedness of the Company, at the Closing, will be senior to, or *pari passu* with, the Notes in right of payment, whether with respect to payment or redemptions, interest, damages, upon liquidation or dissolution or otherwise (other than Indebtedness secured by Permitted Liens (as defined in the Notes)).

25

(xx) 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.

(yy) 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.

26

(zz) Registration Rights. No holder of securities of the Company has rights to the registration of any securities of the Company because of the filing of the Registration Statement or the issuance of the Securities hereunder that could expose the Company to material liability or any Buyer to any liability or that could impair the Company's ability to consummate the issuance and sale of the Securities in the manner, and at the times, contemplated hereby, which rights have not been waived by the holder thereof as of the date hereof.

(aaa) 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 as of the date furnished and does not contain any untrue statement of a material fact or omit to state any material fact as of the date furnished 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. 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.

27

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 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), if any, 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 and/or all of the Securities shall have been redeemed, as applicable (the "Reporting Period"), the Company shall timely file all reports required to be filed with the SEC pursuant to the 1934 Act (reports filed in compliance with the time periods specified in Rule 12b-25 under the 1934 Act shall be considered timely for this purpose), 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. The Company shall use reasonable best efforts 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 (less reasonable attorneys' and accountants' fees and expenses) as described in Schedule 4(d), 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 Buyer (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 or quarterly, 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.

28

(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 Principal Market, The New York Stock Exchange, the NYSE American, 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 the Buyer or Kelley Drye & Warren LLP, as applicable, for all costs and expenses incurred in connection with the structuring, documentation, negotiation and closing of the transactions contemplated by the Transaction Documents (including, without limitation, as applicable, all legal fees and disbursements of Kelley Drye & Warren LLP, counsel to the lead Buyer, any other reasonable fees and expenses in connection with the structuring, documentation, negotiation and closing of the transactions contemplated by the Transaction Documents and due diligence and regulatory filings in connection therewith) (the "Transaction Expenses") and shall be withheld by the lead Buyer from its applicable Purchase Price at the Closing, less any amounts previously paid by the Company to Kelley Drye & Warren LLP; provided, that the Company shall promptly reimburse Kelley Drye & Warren LLP on demand for all Transaction Expenses not so reimbursed through such withholding at the Closing. The Company shall be responsible for the payment of any placement agent's fees, financial advisory fees, any fees and expenses of the transfer agent, 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. 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 Buyer 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 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, including, without limitation, Section 2(g) hereof; provided that an Buyer 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.

29

(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 March 14, 2023, 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 March 14, 2023, 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 Voting Agreements, the form of Registration Rights Agreement, the form of Guaranty, the form of Security Agreement and the form of Notes) (including all attachments, the "**8-K Filing**"). From and after the filing of the 8-K Filing, 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 8-K Filing, 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, that is then in effect 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) except to the extent (x) the Company is required to deliver such disclosures pursuant to the terms and conditions of the Transaction Documents and (y) the Company complies with any subsequent disclosure requirements set forth herein or therein, as applicable, with respect to such disclosures. In the event of a breach of any of the foregoing covenants, including, without limitation, Section 4(o) of this Agreement, 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, except as required by applicable law in the exhibits to the 8-K Filing. 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.

30

(j) Additional Registration Statements. Until the Applicable Date (as defined below) and at any time thereafter while the initial 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 or an offering statement under the 1933 Act relating to securities that are not the Registrable Securities (other than a registration statement on Form S-8, a registration statement on Form S-3 with respect to the Common Stock issuable upon conversion of any Preferred Stock issued and outstanding as of the Closing, 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) or as otherwise permitted under the Registration Rights Agreement). "**Applicable Date**" means the later of (A) the Stockholder Approval Date and (B) the earlier of (x) the first date on which the resale by the Buyers of all the Registrable Securities required to be filed on the initial Registration Statement (as defined in the Registration Rights Agreement) pursuant to the Registration Rights Agreement is declared effective by the SEC (and each prospectus contained therein is available for use on such date) or (y) 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 (as defined in the Registration Rights Agreement) has occurred and is continuing, such later date after which the Company has cured such Current Public Information Failure).

(k) Additional Issuance of Securities. Until the 90th Trading Day after the Maturity Date (as defined in the Notes), the Company will not, without the prior written consent of the Required Holders issue any Notes (other than to the Buyers as contemplated hereby) and the Company shall not issue any other securities that would cause a breach or default under the Notes. The Company agrees that for the period commencing on the date hereof and ending on the date immediately following the 90th calendar day after the Maturity Date (the "**Restricted Period**"), neither the Company nor any of its Subsidiaries shall directly or indirectly:

(i) 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 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) or as otherwise permitted under the Registration Rights Agreement); or

31

(ii) 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 Convertible Securities (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**"), in the case of any Subsequent Placement other than one involving the issuance of convertible Permitted Indebtedness (as defined in the Note) at a New Issuance Price (as defined below) less than the Conversion Price (as defined in the Notes) as of the Closing Date (as adjusted for stock splits, stock dividends, stock

combinations, recapitalizations and similar events). Notwithstanding the foregoing, this Section 4(j) shall not apply in respect of the issuance of (A) shares of Common Stock or standard options to purchase Common Stock to directors, officers, consultants or employees of the Company or any Significant Subsidiary in their capacity as such pursuant to an Approved Stock Plan (as defined below), provided that (1) 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 changed in any manner that adversely affects any of the Buyers and (2) any such shares of Common Stock issued (other than shares of Common Stock issued upon exercise of standard options to purchase Common Stock outstanding as of the date hereof pursuant to such terms thereof in effect as of the date hereof) and shares of Common Stock issued upon exercise of standard options to purchase Common Stock, after the date hereof, do not, in the aggregate, exceed more than 10% of the Common Stock issued and outstanding immediately prior to the date hereof; (B) 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 after the date hereof that are covered by clause (A) 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 Convertible Security is made solely pursuant to the conversion, exercise or other method of issuance (as the case may be) provisions of such Convertible Security that were in effect on the date immediately prior to the date of this Agreement, the conversion, exercise or issuance 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 (A) 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 (A) 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 (A) above) are otherwise changed in any manner that adversely affects any of the Buyers; (C) the Conversion Shares; (D) any shares of Common Stock issued or issuable in connection with any bona fide strategic or commercial alliances, acquisitions, mergers, licensing arrangements, and strategic partnerships, provided, that (x) the primary purpose of such issuance is not to raise capital as reasonably determined, and (y) 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; or (E) through the Applicable Date, up to \$6.375 million of shares of Preferred Stock by the Company (the "New Preferred Offering") (each of the foregoing in clauses (A) through (E), collectively the "Excluded Securities"). "Approved Stock Plan" means any employee benefit plan which has been approved by the board of directors of the Company or applicable Subsidiary 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 or director for services provided to the Company or any Significant Subsidiary in their capacity as such. "New Issuance Price" means with respect to any, direct or indirect, grant, issuance or sale of any shares of Common Stock by the Company (or entry by the Company into any purchase agreement or other offering document with respect thereto), including, without limitation, any grant, issuance or sale of Convertible Securities, the lowest price per share for which one share of Common Stock is at any time issuable pursuant to such purchase agreement or other offering document or upon the conversion, exercise or exchange of such applicable Convertible Security (the "Lowest Per Share Price"), which shall be equal to the difference of (A) 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 of such share of Common Stock or Convertible Security (as applicable) or upon conversion, exercise or exchange of any Convertible Security, as applicable, and (y) the lowest purchase price, exercise price, conversion price or exchange price, as applicable, set forth in such purchase agreement or other offering document or Convertible Security (as applicable) for which one share of Common Stock is issuable (or may become issuable assuming all possible market conditions) minus (B) the sum of all amounts paid or payable to the purchaser of such shares of Common Stock and/or holder of such Convertible Security (or any other Person, as applicable) upon the granting, issuance or sale of such shares of Common Stock and/or Convertible Security (as applicable), upon conversion, exercise or exchange (as applicable) of such Convertible Security and upon conversion, exercise or exchange of any Convertible Security issuable upon exercise of such Convertible Security 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 Convertible Security (or any other Person); provided, that if any Convertible Security 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 Required Holders, the "Primary Security", and such Convertible Security, 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, and (y) the difference of (I) the Lowest Per Share Price of the Primary Security less (II) the Option Value (as defined below) per share of Common Stock issuance upon conversion, exercise or exchange thereof, as applicable, of the Secondary Security. "Option Value" means the value of the applicable Convertible Security as of the date of issuance thereof calculated using the Black Scholes Option Pricing Model obtained from the "OV" function on Bloomberg utilizing (1) an underlying price per share equal to the Closing Sale Price (as defined in the Notes) of the Common Stock on the Trading Day (as defined below) immediately preceding the public announcement of the execution of definitive documents with respect to the issuance of such Convertible Security, (2) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the remaining term of such Convertible Security as of the date of issuance of such Convertible Security, (3) a zero cost of borrow and (4) an expected volatility equal to the greater of 100% and the 100 day volatility obtained from the "HVT" function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the date of issuance of such Convertible Security.

(l) Reservation of Shares. So long as any of the Notes 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 (i) prior to the Stockholder Approval Date, 9,259,953 shares of Common Stock, and (ii) from and after the Stockholder Approval Date, not less than the maximum number of shares of Common Stock issuable upon conversion of all the Notes then outstanding (assuming for purposes hereof that (x) the Notes are convertible at the Floor Price as of such applicable date of determination, (y) interest on the Notes shall accrue through the second anniversary of the Applicable Closing Date (as defined in the Notes) and will be converted in shares of Common Stock at a conversion price equal to the Floor Price as of such applicable date of determination and (z) any such conversion shall not take into account any limitations on the conversion of the Notes set forth in the Notes) (such amount as determined pursuant to clause (i) or (ii), as applicable, 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 conversion, exercise and/or redemption, as applicable of Notes. 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) Other Notes: Variable Securities. Except as permitted pursuant to Section 4(k)(ii)(E), so long as any Notes remain outstanding, 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. "Variable Rate Transaction" means a transaction in which the Company or any Subsidiary (i) issues or sells (or enters into any agreement to issue or sell (regardless of whether any securities and subsequently issued thereunder)) any Convertible Securities 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 Convertible Securities, 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 Convertible Securities 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, or (ii) enters into (or issues or sells securities pursuant to, as applicable) 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.

(o) **Participation Right.** At any time on or prior to the later of (A) the third anniversary of the Closing and (B) the date no Notes remain outstanding, neither the Company nor any of its Subsidiaries shall, directly or indirectly, effect any Subsequent Placement unless the Company shall have first complied with this Section 4(o). The Company acknowledges and agrees that the right set forth in this Section 4(o) is a right granted by the Company, separately, to each Buyer, and such Buyer agrees that such right is not transferrable to any third party transferee of any Securities, other than a transferee that agrees in writing to be bound by the terms and conditions of this Agreement.

33

(i) At least five (5) Trading Days prior to any proposed or intended Subsequent Placement, the Company shall deliver to each Buyer a written notice (each such notice, a “**Pre-Notice**”), which Pre-Notice shall not contain any information (including, without limitation, material, non-public information) other than: (A) if the proposed Offer Notice (as defined below) constitutes or contains material, non-public information, a statement asking whether the Buyer is willing to accept material non-public information or (B) if the proposed Offer Notice does not constitute or contain material, non-public information, (x) a statement that the Company proposes or intends to effect a Subsequent Placement, (y) a statement that the statement in clause (x) above does not constitute material, non-public information and (z) a statement informing such Buyer that it is entitled to receive an Offer Notice (as defined below) with respect to such Subsequent Placement upon its written request. Upon the written request of a Buyer within three (3) Trading Days after the Company’s delivery to such Buyer of such Pre-Notice, and only upon a written request by such Buyer, the Company shall promptly, but no later than one (1) Trading Day after such request, deliver to such Buyer an irrevocable written notice (the “**Offer Notice**”) of any proposed or intended issuance or sale or exchange (the “**Offer**”) of the securities being offered (the “**Offered Securities**”) in a Subsequent Placement, which Offer Notice shall (A) identify and describe the Offered Securities, (B) describe the price and other terms upon which they are to be issued, sold or exchanged, and the number or amount of the Offered Securities to be issued, sold or exchanged, (C) identify the Persons (if known) to which or with which the Offered Securities are to be offered, issued, sold or exchanged and (D) offer to issue and sell to or exchange with such Buyer in accordance with the terms of the Offer such Buyer’s pro rata portion of 100% of the Offered Securities, provided that the number of Offered Securities which such Buyer shall have the right to subscribe for under this Section 4(o) shall be (x) based on such Buyer’s pro rata portion of the aggregate original principal amount of the Notes purchased hereunder by all Buyers (the “**Basic Amount**”), and (y) with respect to each Buyer that elects to purchase its Basic Amount, any additional portion of the Offered Securities attributable to the Basic Amounts of other Buyers as such Buyer shall indicate it will purchase or acquire should the other Buyers subscribe for less than their Basic Amounts (the “**Undersubscription Amount**”), which process shall be repeated until each Buyer shall have an opportunity to subscribe for any remaining Undersubscription Amount.

(ii) To accept an Offer, in whole or in part, such Buyer must deliver a written notice to the Company prior to the end of the fifth (5th) Business Day after such Buyer’s receipt of the Offer Notice (the “**Offer Period**”), setting forth the portion of such Buyer’s Basic Amount that such Buyer elects to purchase and, if such Buyer shall elect to purchase all of its Basic Amount, the Undersubscription Amount, if any, that such Buyer elects to purchase (in either case, the “**Notice of Acceptance**”). If the Basic Amounts subscribed for by all Buyers are less than the total of all of the Basic Amounts, then each Buyer who has set forth an Undersubscription Amount in its Notice of Acceptance shall be entitled to purchase, in addition to the Basic Amounts subscribed for, the Undersubscription Amount it has subscribed for; provided, however, if the Undersubscription Amounts subscribed for exceed the difference between the total of all the Basic Amounts and the Basic Amounts subscribed for (the “**Available Undersubscription Amount**”), each Buyer who has subscribed for any Undersubscription Amount shall be entitled to purchase only that portion of the Available Undersubscription Amount as the Basic Amount of such Buyer bears to the total Basic Amounts of all Buyers that have subscribed for Undersubscription Amounts, subject to rounding by the Company to the extent it deems reasonably necessary. Notwithstanding the foregoing, if the Company desires to modify or amend the terms and conditions of the Offer prior to the expiration of the Offer Period, the Company may deliver to each Buyer a new Offer Notice and the Offer Period shall expire on the fifth (5th) Business Day after such Buyer’s receipt of such new Offer Notice.

34

(iii) The Company shall have seven (7) Business Days from the expiration of the Offer Period above (A) to offer, issue, sell or exchange all or any part of such Offered Securities as to which a Notice of Acceptance has not been given by a Buyer (the “**Refused Securities**”) pursuant to a definitive agreement(s) (the “**Subsequent Placement Agreement**”), but only to the offerees described in the Offer Notice (if so described therein) and only upon terms and conditions (including, without limitation, unit prices and interest rates) that are not more favorable to the acquiring Person or Persons or less favorable to the Company than those set forth in the Offer Notice and (B) if a Subsequent Placement Agreement is executed during such seven (7) Business Day period, to publicly announce (x) the execution of such Subsequent Placement Agreement, and (y) either (I) the consummation of the transactions contemplated by such Subsequent Placement Agreement or (II) the termination of such Subsequent Placement Agreement, which shall be filed with the SEC on a Current Report on Form 8-K with such Subsequent Placement Agreement and any documents contemplated therein filed as exhibits thereto.

(iv) In the event the Company shall propose to sell less than all the Refused Securities (any such sale to be in the manner and on the terms specified in Section 4(o)(iii) above), then each Buyer may, at its sole option and in its sole discretion, withdraw its Notice of Acceptance or reduce the number or amount of the Offered Securities specified in its Notice of Acceptance to an amount that shall be not less than the number or amount of the Offered Securities that such Buyer elected to purchase pursuant to Section 4(o)(ii) above multiplied by a fraction, (i) the numerator of which shall be the number or amount of Offered Securities the Company actually proposes to issue, sell or exchange (including Offered Securities to be issued or sold to Buyers pursuant to this Section 4(o) prior to such reduction) and (ii) the denominator of which shall be the original amount of the Offered Securities. In the event that any Buyer so elects to reduce the number or amount of Offered Securities specified in its Notice of Acceptance, the Company may not issue, sell or exchange more than the reduced number or amount of the Offered Securities unless and until such securities have again been offered to the Buyers in accordance with Section 4(o)(i) above.

(v) Upon the closing of the issuance, sale or exchange of all or less than all of the Refused Securities, such Buyer shall acquire from the Company, and the Company shall issue to such Buyer, the number or amount of Offered Securities specified in its Notice of Acceptance, as reduced pursuant to Section 4(o)(iv) above if such Buyer has so elected, upon the terms and conditions specified in the Offer. The purchase by such Buyer of any Offered Securities is subject in all cases to the preparation, execution and delivery by the Company and such Buyer of a separate purchase agreement relating to such Offered Securities reasonably satisfactory in form and substance to such Buyer and its counsel.

(vi) Any Offered Securities not acquired by a Buyer or other Persons in accordance with this Section 4(o) may not be issued, sold or exchanged until they are again offered to such Buyer under the procedures specified in this Agreement.

(vii) The Company and each Buyer agree that if any Buyer elects to participate in the Offer, (x) neither the Subsequent Placement Agreement with respect to such Offer nor any other transaction documents related thereto (collectively, the “**Subsequent Placement Documents**”) shall include any term or provision whereby such Buyer shall be required to agree to any restrictions on trading as to any securities of the Company or be required to consent to any amendment to or termination of, or grant any waiver, release or the like under or in connection with, any agreement previously entered into with the Company or any instrument received from the Company, and (y) any registration rights set forth in such Subsequent Placement Documents shall be similar in all material respects to the registration rights contained in the Registration Rights Agreement.

35

(viii) Notwithstanding anything to the contrary in this Section 4(o) and unless otherwise agreed to by such Buyer, the Company shall either confirm in writing to such Buyer that the transaction with respect to the Subsequent Placement has been abandoned or shall publicly disclose its intention to issue the Offered Securities, in either case, in such a manner such that such Buyer will not be in possession of any material, non-public information, by the twelfth (12th) Business Day following delivery of the Offer Notice. If by such twelfth (12th) Business Day, no public disclosure regarding a transaction with respect to the Offered Securities has been made,

and no notice regarding the abandonment of such transaction has been received by such Buyer, such transaction shall be deemed to have been abandoned and such Buyer shall not be in possession of any material, non-public information with respect to the Company or any of its Subsidiaries. Should the Company decide to pursue such transaction with respect to the Offered Securities, the Company shall provide such Buyer with another Offer Notice and such Buyer will again have the right of participation set forth in this Section 4(o). The Company shall not be permitted to deliver more than one such Offer Notice to such Buyer (or offer or consummate any other Subsequent Placement) in any sixty (60) day period, except as expressly contemplated by the last sentence of Section 4(o)(ii).

(ix) The restrictions contained in this Section 4(o) shall not apply in connection with the issuance of any Excluded Securities. The Company shall not circumvent the provisions of this Section 4(o) by providing terms or conditions to one Buyer that are not provided to all or include terms or conditions primarily designed to adversely affect one or more Buyers to the extent such Buyer(s) exercises its rights pursuant to this Section 4(o) hereunder.

(p) Subsequent Placement. For so long as any Notes remain outstanding, the Company shall not, in any manner, enter into or affect any Subsequent Placement (as defined above) if the effect of such Subsequent Placement is to cause the Company to be required to issue upon conversion of any Notes any shares of Common Stock in excess of that number of shares of Common Stock which the Company may issue upon conversion of the Notes 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 Notes are outstanding, the Company shall not, directly or indirectly, redeem, or declare or pay any cash dividend or cash distribution on, any securities of the Company without the prior express written consent of the Buyers (other than as required by the certificate of designations for the shares of Series A preferred stock of the Company or any other agreement, in each case as in effect as of the date hereof).

36

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

(t) Stock Splits. Until the Notes and all notes issued pursuant to the terms thereof are no longer outstanding, the Company shall not effect any stock combination, reverse stock split or other similar transaction (or make any public announcement or disclosure with respect to any of the foregoing) without the prior written consent of the Required Holders (as defined below) except as required by any Principal Market to provide for the eligibility or combined eligibility of the Common Stock for listing or quotation thereon.

(u) Conversion Procedures. Each of the form of Conversion Notice (as defined in the Notes) included in the Notes set forth the totality of the procedures required of the Buyers in order to convert the Notes. Except as provided in Section 5(d), no additional legal opinion, other information or instructions shall be required of the Buyers to convert their Notes. The Company shall honor conversions of the Notes and shall deliver the Conversion Shares in accordance with the terms, conditions and time periods set forth in the Notes.

(v) Collateral Agent. Each Buyer hereby (i) appoints Alto Opportunity Master Fund, SPC – Segregated Master Portfolio B, as the collateral agent hereunder and under the other Security Documents (in such capacity, the “**Collateral Agent**”), and (ii) authorizes the Collateral Agent (and its officers, directors, employees and agents) to take such action on such Buyer's behalf in accordance with the terms hereof and thereof. The Collateral Agent shall not have, by reason hereof or any of the other Security Documents, a fiduciary relationship in respect of any Buyer. Neither the Collateral Agent nor any of its officers, directors, employees or agents shall have any liability to any Buyer for any action taken or omitted to be taken in connection hereof or any other Security Document except to the extent caused by its own gross negligence or willful misconduct, and each Buyer agrees to defend, protect, indemnify and hold harmless the Collateral Agent and all of its officers, directors, employees and agents (collectively, the “**Collateral Agent Indemnitees**”) from and against any losses, damages, liabilities, obligations, penalties, actions, judgments, suits, fees, costs and expenses (including, without limitation, reasonable attorneys' fees, costs and expenses) incurred by such Collateral Agent Indemnitee, whether direct, indirect or consequential, arising from or in connection with the performance by such Collateral Agent Indemnitee of the duties and obligations of Collateral Agent pursuant hereto or any of the Security Documents. The Collateral Agent shall not be required to exercise any discretion or take any action, but shall be required to act or to refrain from acting (and shall be fully protected in so acting or refraining from acting) upon the instructions of the Required Holders, and such instructions shall be binding upon all holders of Notes; provided, however, that the Collateral Agent shall not be required to take any action which, in the reasonable opinion of the Collateral Agent, exposes the Collateral Agent to liability or which is contrary to this Agreement or any other Transaction Document or applicable law. The Collateral Agent shall be entitled to rely upon any written notices, statements, certificates, orders or other documents or any telephone message believed by it in good faith to be genuine and correct and to have been signed, sent or made by the proper Person, and with respect to all matters pertaining to this Agreement or any of the other Transaction Documents and its duties hereunder or thereunder, upon advice of counsel selected by it.

37

(w) Successor Collateral Agent.

(i) The Collateral Agent may resign from the performance of all its functions and duties hereunder and under the other Transaction Documents at any time by giving at least ten (10) Business Days' prior written notice to the Company and each holder of Notes. Such resignation shall take effect upon the acceptance by a successor Collateral Agent of appointment pursuant to clauses (ii) and (iii) below or as otherwise provided below. If at any time the Collateral Agent (together with its affiliates) beneficially owns less than \$100,000 in aggregate principal amount of Notes, the Required Holders may, by written consent, remove the Collateral Agent from all its functions and duties hereunder and under the other Transaction Documents.

(ii) Upon any such notice of resignation or removal, the Required Holders shall appoint a successor collateral agent. Upon the acceptance of any appointment as Collateral Agent hereunder by a successor agent, such successor collateral agent shall thereupon succeed to and become vested with all the rights, powers, privileges and duties of the collateral agent, and the Collateral Agent shall be discharged from its duties and obligations under this Agreement and the other Transaction Documents. After the Collateral Agent's resignation or removal hereunder as the collateral agent, the provisions of this Section 4(w) shall inure to its benefit as to any actions taken or omitted to be taken by it while it was the Collateral Agent under this Agreement and the other Transaction Documents.

(iii) If a successor collateral agent shall not have been so appointed within ten (10) Business Days of receipt of a written notice of resignation or removal, the Collateral Agent shall then appoint a successor collateral agent who shall serve as the Collateral Agent until such time, if any, as the Required Holders appoint a successor collateral agent as provided above.

(iv) In the event that a successor Collateral Agent is appointed pursuant to the provisions of this Section 4(w) that is not a Buyer or an affiliate of any Buyer (or the Required Holders or the Collateral Agent (or its successor), as applicable, notify the Company that they or it wants to appoint such a successor Collateral Agent pursuant to the terms of this Section 4(w)), the Company and each Subsidiary thereof covenants and agrees to promptly take all actions reasonably requested by the Required Holders or the Collateral Agent (or its successor), as applicable, from time to time, to secure a successor Collateral Agent satisfactory to the requesting party(ies), in their sole discretion, including, without limitation, by paying all reasonable and customary fees and expenses of such successor Collateral Agent, by having the Company and each Subsidiary thereof agree to indemnify any successor Collateral Agent pursuant to reasonable and customary terms and by each of the Company and each Subsidiary thereof executing a collateral agency agreement or similar agreement and/or any amendment to the Security Documents reasonably requested or required by the successor Collateral Agent.

(x) 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.

(y) 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.

(z) 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 if such integration would adversely affect compliance of the issuance of the Securities with Regulation D or the rules and regulations of the Principal Market.

(aa) 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.

(bb) Subsidiary Guarantee. For so long as any Notes remain outstanding, upon any entity becoming a direct, or indirect, Subsidiary of the Company, the Company shall cause each such Subsidiary to become party to the Guaranty by executing a joinder to the Guaranty reasonably satisfactory in form and substance to the Required Holders.

(cc) Stockholder Approval. The Company shall either (i) 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 earlier to occur of (x) the Company’s next general stockholder meeting and (y) 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 90 calendar days after the Closing) (the “**Stockholder Consent Deadline**”), an information statement with respect thereto or (ii) provide each stockholder entitled to vote at an annual or special meeting of stockholders of the Company (the “**Stockholder Meeting**”), which shall be promptly called and held not later than July 31, 2023 (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 (x) the increase in the authorized shares of Common Stock from 100 million to 200 million and (y) the issuance of all of the Securities in compliance with the rules and regulations of the Principal Market (without regard to any limitations on conversion set forth in the Notes) (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 September 30, 2023. 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 quarterly thereafter until such Stockholder Approval is obtained.

(dd) No Waiver of Voting Agreements. The Company shall not amend, waive, modify or fail to use best efforts to enforce any provision of the Voting Agreement. Notwithstanding the foregoing, no Buyer shall be a third party beneficiary of any Voting Agreement.

(ee) 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 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 Securities), a register for the Notes in which the Company shall record the name and address of the Person in whose name the Notes have been issued (including the name and address of each transferee), the principal amount of the Notes held by such Person and the number of Conversion Shares issuable pursuant to the terms of the Notes. 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 Conversion Shares in such amounts as specified from time to time by each Buyer to the Company upon conversion of the Notes. 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 and in compliance with applicable law. 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 Conversion 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) or in connection with any resale of the Securities in compliance with Rule 144. 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 Conversion 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 CONVERTIBLE 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.

41

(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) beginning on the six month anniversary of Closing (and, if prior to the first anniversary of the Closing, only at such times as no Current Public Information Failure then exists), 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 two (2) Trading Days (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 Conversion 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.

42

(e) Failure to Timely Deliver; Buy-In. If the Company fails to, 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 Conversion Shares to which such Buyer is entitled and register such Conversion Shares 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 Conversion Shares submitted for legend removal by such Buyer pursuant to Section 5(d) above or (II) if the Registration Statement covering the resale of the Conversion Shares 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 Conversion Shares electronically without any restrictive legend by crediting such aggregate number of Conversion Shares 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 Conversion Shares 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 (and in the case of Conversion Shares, if they may then be resold by such Buyer pursuant to an effective resale registration statement or in reliance on Rule 144 (if then available)), 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 is entitled to receive from the Company (a “**Buy-In**”), then the Company shall, within two (2) Trading Days 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 Conversion Shares 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 Notes) 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 Conversion Shares 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 held by such Buyer.

43

(f) FAST Compliance. While any Notes 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 Notes 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 Note 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 Note 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 a Note in such original principal amount as is set forth across from such Buyer's name in column (3) of the Schedule of Buyers as being purchased by such Buyer at the Closing pursuant to this Agreement.

(ii) Such Buyer shall have received the opinion of the Company's counsel, dated as of the Closing Date, in the form acceptable to such Buyer.

44

(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 and shall remain in full force and effect as of the Closing Date.

(iv) The Company shall have delivered to such Buyer a certificate evidencing the formation and good standing of the Company and each of its Subsidiaries in each such entity's jurisdiction of formation issued by the Secretary of State (or comparable office) of such jurisdiction of formation 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 and each Subsidiary'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 and each Subsidiary 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) Each Subsidiary shall have delivered to such Buyer a certified copy of its Certificate of Incorporation (or such equivalent organizational document) as certified by the Secretary of State (or comparable office) of such Subsidiary's jurisdiction of incorporation within ten (10) days of the Closing Date.

(viii) The Company and each Subsidiary shall have delivered to such Buyer a certificate, in the form acceptable to such Buyer, executed by the Secretary of the Company and each Subsidiary and dated as of the Closing Date, as to (A) the resolutions consistent with Section 3(b) as adopted by the Company's and each Subsidiary's board of directors in a form reasonably acceptable to such Buyer, (B) the Certificate of Incorporation of the Company and the organizational documents of each Subsidiary and (C) the Bylaws of the Company and the bylaws of each Subsidiary, each as in effect at the Closing.

(ix) Each and every representation and warranty of the Company shall be true and correct in all material respects (except for representations and warranties qualified by material or Material Adverse Effect, which shall be true and correct in all 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 in all material respects (except for representations and warranties qualified by material or Material Adverse Effect, which shall be true and correct in all respects) 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.

45

(x) 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.

(xi) 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.

(xii) 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.

(xiii) 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.

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

(xv) The Company shall have obtained approval of the Principal Market to list or designate for quotation (as the case may be) the Conversion Shares issuable upon conversion of the Notes.

(xvi) In accordance with the terms of the Security Documents, the Company shall have delivered to the Collateral Agent (A) original certificates (I) representing the Covered Subsidiaries' shares of capital stock to the extent such subsidiary is a corporation or otherwise has certificated equity and (II) representing all other equity interests and all promissory notes required to be pledged thereunder, in each case, accompanied by undated stock powers and allonges executed in blank and other proper instruments of transfer and (B) appropriate financing statements on Form UCC-1 to be duly filed in such office or offices as may be necessary or, in the

opinion of the Collateral Agent, desirable to perfect the security interests purported to be created by each Security Document.

(xvii) Within two (2) Business Days prior to the Closing, the Company shall have delivered or caused to be delivered to each Buyer and the Collateral Agent (A) certified copies of requests for copies of information on Form UCC-11, listing all effective financing statements which name as debtor the Company or any of its Covered Subsidiaries and which are filed in such office or offices as may be necessary or, in the opinion of the Collateral Agent or the Buyers, desirable to perfect the security interests purported to be created by the Security Agreement, together with copies of such financing statements, none of which, except as otherwise agreed in writing by the Collateral Agent, shall cover any of the Collateral (as defined in the Security Agreement), and the results of searches for any tax Lien and judgment Lien filed against such Person or its property, which results, except as otherwise agreed to in writing by the Collateral Agent and the Buyers, shall not show any such Liens; and (B) a perfection certificate, duly completed and executed by the Company and each of its Covered Subsidiaries, in form and substance satisfactory to the Buyers (the “**Perfection Certificate**”).

46

(xviii) The Collateral Agent shall have received the Security Agreement, duly executed by the Company and each of its Covered Subsidiaries, together with the original stock certificates representing all of the equity interests and all promissory notes required to be pledged thereunder, accompanied by undated stock powers and allonges executed in blank and other proper instruments of transfer.

(xix) With respect to the Intellectual Property Rights, if any, of the Company or any of its Covered Subsidiaries, the Company and/or such Covered Subsidiaries, as applicable, shall have duly executed and delivered to such Buyer each Assignment For Security for the Intellectual Property Rights of the Company and its Covered Subsidiaries, in the form attached as Exhibit A to the Security Agreement.

(xx) 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**”).

(xxi) From the date hereof to the Closing Date, (A) trading in the Common Stock shall not have been suspended by the SEC or the Principal Market (except for any suspension of trading of limited duration agreed to by the Company, which suspension shall be terminated prior to the Closing), and, (B) at any time prior to the Closing Date, trading in securities generally as reported by Bloomberg L.P. shall not have been suspended or limited, or minimum prices shall not have been established on securities whose trades are reported by such service, or on the Principal Market, nor shall a banking moratorium have been declared either by the United States or New York State authorities nor shall there have occurred any material outbreak or escalation of hostilities or other national or international calamity of such magnitude in its effect on, or any material adverse change in, any financial market which, in each case, in the reasonable judgment of each Buyer, makes it impracticable or inadvisable to purchase the Securities at the Closing.

(xxii) The Company shall have duly executed and delivered to such Buyer the voting agreement in a form to be mutually agreed upon (the “**Voting Agreement**”), by and between the Company and PAVmed Inc., a Delaware corporation (“**PAVmed**”), and PAVmed shall have duly executed and delivered to such Buyer the Voting Agreement and the Stockholder Consent.

(xxiii) The Company shall have delivered to such Buyer written evidence of its issuance and sale of at least \$13,000,000 in shares of Series A preferred stock, to the satisfaction of such Buyer in its sole and absolute discretion.

(xxiv) 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.

47

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 Notes 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 choice of law or conflict of law 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 or 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.**

48

(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 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.

49

(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 (solely vis-a-vis the other Notes, as applicable) disproportionately and adversely amends or modifies any term or condition of the Notes (it being understood that any holder of other securities of the Company may receive consideration or benefits in its capacity as a holder of such other securities or in connection with a Subsequent Placement without impacting such proportionality determination hereunder) or (B) imposes any financial 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) and provided further that the provisions of Sections 4(v) and 4(w) above cannot be amended or waived without the additional prior written approval of the Collateral Agent or its successor. 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 financial 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). 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 Notes at the Closing and (II) on or after the Closing Date, Alto Opportunity Master Fund, SPC – Segregated Master Portfolio B (“**Alto**”).

50

(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:

Lucid Diagnostics Inc.
360 Madison Avenue, 25th Floor
New York, NY 10017
Telephone: (212) 949-4319
Attention: Lishan Aklog, Chief Executive Officer
E-Mail: la@pavmed.com

With a copy (for informational purposes only) to:

Friedman Kaplan Seiler & Adelman LLP
7 Times Square
New York, NY 10036-6516
Telephone: (212) 833-1186

If to the Transfer Agent:

Continental Stock Transfer and Trust
1 State Street, 30th
New York, NY 10004-1561
Telephone: (212) 845-3215
Attention Isaac Kagan, Vice President & Account Administrator
E-Mail: ikagan@continentalstock.com

If to a Buyer, to its mailing address and e-mail address set forth on the Schedule of Buyers, with copies to such Buyer's representatives as set forth on the Schedule of Buyers,

with a copy (for informational purposes only) to:

Kelley Drye & Warren LLP
3 World Trade Center
175 Greenwich Street
New York, NY 10154
Telephone: (212) 808-7540
Attention: Michael A. Adelstein, Esq.
E-mail: madelstein@kelleydrye.com

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, provided that Kelley Drye & Warren LLP shall only be provided copies of notices sent to the lead Buyer. 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 Notes (but excluding any purchasers of Registrable Securities, unless pursuant to a written assignment by such Buyer). 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 Notes) (unless the Company is in compliance with the applicable provisions governing Fundamental Transactions set forth in the Notes). 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 the Indemnitees referred to in Section 9(k).

(i) 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.

(j) 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.

(k) Indemnification.

(i) 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, results from or relates to (A) the execution, delivery, performance or enforcement of any of the Transaction Documents or the New Preferred Offering, (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 or the New Preferred Offering, (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.

(ii) Promptly after receipt by an Indemnitee under this Section 9(k) of notice of the commencement of any action or proceeding (including any governmental action or proceeding) involving an Indemnified Liability, such Indemnitee shall, if a claim in respect thereof is to be made against the Company under this Section 9(k), deliver to the Company a written notice of the commencement thereof, and the Company shall have the right to participate in, and, to the extent the Company so desires, to assume control of the defense thereof with counsel mutually satisfactory to the Company and the Indemnitee; provided, however, that an Indemnitee shall have the right to retain its own counsel with the fees and expenses of such counsel to be paid by the Company if: (A) the Company has agreed in writing to pay such fees and expenses; (B) the Company shall have failed promptly to assume the defense of such Indemnified Liability and to employ counsel reasonably satisfactory to such

Indemnitee in any such Indemnified Liability; or (C) the named parties to any such Indemnified Liability (including any impleaded parties) include both such Indemnitee and the Company, and such Indemnitee shall have been advised by counsel that a conflict of interest is likely to exist if the same counsel were to represent such Indemnitee and the Company (in which case, if such Indemnitee notifies the Company in writing that it elects to employ separate counsel at the expense of the Company, then the Company shall not have the right to assume the defense thereof and such counsel shall be at the expense of the Company), provided further, that in the case of clause (C) above the Company shall not be responsible for the reasonable fees and expenses of more than one (1) separate legal counsel for the Indemnitees. The Indemnitee shall reasonably cooperate with the Company in connection with any negotiation or defense of any such action or Indemnified Liability by the Company and shall furnish to the Company all information reasonably available to the Indemnitee which relates to such action or Indemnified Liability. The Company shall keep the Indemnitee reasonably apprised at all times as to the status of the defense or any settlement negotiations with respect thereto. The Company shall not be liable for any settlement of any action, claim or proceeding effected without its prior written consent, provided, however, that the Company shall not unreasonably withhold, delay or condition its consent. The Company shall not, without the prior written consent of the Indemnitee, 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 Indemnitee of a release from all liability in respect to such Indemnified Liability or litigation, and such settlement shall not include any admission as to fault on the part of the Indemnitee. Following indemnification as provided for hereunder, the Company shall be subrogated to all rights of the Indemnitee 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 Company within a reasonable time of the commencement of any such action shall not relieve the Company of any liability to the Indemnitee under this Section 9(k), except to the extent that the Company is materially and adversely prejudiced in its ability to defend such action.

(iii) The indemnification required by this Section 9(k) shall be made by periodic payments of the amount thereof during the course of the investigation or defense, within ten (10) days after bills are received or Indemnified Liabilities are incurred.

(iv) The indemnity agreement contained herein shall be in addition to (A) any cause of action or similar right of the Indemnitee against the Company or others, and (B) any liabilities the Company may be subject to pursuant to the law.

54

(l) 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.

(m) 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 be 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).

(n) 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.

55

(o) 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.

(p) 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(p) 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(p)(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(p)(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.

(q) 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:

LUCID DIAGNOSTICS 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:

ALTO OPPORTUNITY MASTER FUND, SPC – SEGREGATED MASTER PORTFOLIO B

By: _____

Name: _____

Title: _____

SECURITY AND PLEDGE AGREEMENT

SECURITY AND PLEDGE AGREEMENT, dated as of March __, 2023 (this “**Agreement**”), made by Lucid Diagnostics Inc., a Delaware corporation with offices located at 360 Madison Avenue, 25th Floor, New York, NY 10017 (the “**Company**”), and each of the undersigned direct and indirect Significant Subsidiaries of the Company from time to time, if any (each a “**Grantor**” and together with the Company, collectively, the “**Grantors**”), in favor of Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B, in its capacity as collateral agent (in such capacity, the “**Collateral Agent**”) for the Noteholders (as defined below) party to the Securities Purchase Agreement, dated as of March 13, 2023 (as amended, modified, supplemented, extended, renewed, restated or replaced from time to time, the “**Securities Purchase Agreement**”).

WITNESSETH:

WHEREAS, the Company and each party listed as a “**Buyer**” on the Schedule of Buyers attached to the Securities Purchase Agreement (the “**Buyers**” and individually, a “**Buyer**”) are parties to the Securities Purchase Agreement, pursuant to which the Company shall be required to sell, and the Buyers shall purchase or have the right to purchase senior secured convertible notes of the Company issued pursuant thereto (as such notes may be amended, modified, supplemented, extended, renewed, restated or replaced from time to time in accordance with the terms thereof, collectively, the “**Notes**”);

WHEREAS, certain Grantors (other than the Company) from time to time (each a “**Guarantor**” and collectively, the “**Guarantors**”) may execute and deliver one or more guarantees (each, a “**Guaranty**” and collectively, the “**Guaranties**”) in form and substance acceptable to and in favor of the Collateral Agent, for the ratable benefit of itself and the Noteholders, with respect to the Company’s obligations under the Securities Purchase Agreement, the Notes and the other “**Transaction Documents**” (as defined below);

WHEREAS, it is a condition precedent to the Buyers’ obligation to purchase the Notes issued pursuant to the Securities Purchase Agreement that the Grantors shall have executed and delivered to the Collateral Agent this Agreement providing for the grant to the Collateral Agent, for the ratable benefit of itself and the Noteholders, of a valid, enforceable, and perfected security interest in substantially all of the personal property of each Grantor to secure all of the Company’s obligations under the Transaction Documents and the Guarantors’ Obligations under the Guaranties, applicable;

WHEREAS, each Grantor has determined that the execution, delivery and performance of this Agreement directly benefits, and is in the best interest of, such Grantor.

NOW, THEREFORE, in consideration of the premises and the agreements herein and in order to induce the Buyers to perform under the Securities Purchase Agreement, each Grantor agrees with the Collateral Agent, for the ratable benefit of the Collateral Agent and the Noteholders, as follows:

SECTION 1. Definitions.

(a) Reference is hereby made to the Securities Purchase Agreement and the Notes for a statement of the terms thereof. All terms used in this Agreement and the recitals hereto which are defined in the Securities Purchase Agreement, the Notes or in the Code, and which are not otherwise defined herein shall have the same meanings herein as set forth therein; provided that terms used herein which are defined in the Code on the date hereof shall continue to have the same meaning notwithstanding any replacement or amendment of the Code except as the Collateral Agent may otherwise determine in its sole and absolute discretion.

(b) Without limiting the generality of, and subject to the proviso at the end of, Section 1(a) of this Agreement, the following terms shall have the respective meanings provided for in the Code: “Accounts”, “Account Debtor”, “Cash Proceeds”, “Certificate of Title”, “Chattel Paper”, “Commercial Tort Claim”, “Commodity Account”, “Commodity Contracts”, “Deposit Account”, “Documents”, “Electronic Chattel Paper”, “Equipment”, “Fixtures”, “General Intangibles”, “Goods”, “Instruments”, “Inventory”, “Investment Property”, “Letter-of-Credit Rights”, “Noncash Proceeds”, “Payment Intangibles”, “Proceeds”, “Promissory Notes”, “Security”, “Record”, “Security Account”, “Software”, “Supporting Obligations” and “Uncertificated Securities”.

(c) As used in this Agreement, the following terms shall have the respective meanings indicated below, such meanings to be applicable equally to both the singular and plural forms of such terms:

“**Affiliate**” of any Person means any other Person which, directly or indirectly, controls or is controlled by or is under common control with such Person and any officer or director of such Person. Without limiting the generality of the foregoing, a Person shall be deemed to be “controlled by” any other Person if such Person possesses, directly or indirectly, power to vote 10% or more of the securities (on a fully diluted basis) having ordinary voting power for the election of directors or managers or power to direct or cause the direction of the management and policies of such Person, whether by contract or otherwise.

“**Bankruptcy Code**” means Chapter 11 of Title 11 of the United States Code, 11 U.S.C §§ 101 et seq. (or other applicable bankruptcy, insolvency or similar laws).

“**Bankruptcy Event of Default**” means any Event of Default under Section 4(a)(viii) of the Note.

“**Business Day**” means any day other than Saturday, Sunday or other day on which commercial banks in New York City 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.

“**Buyer**” or “**Buyers**” shall have the meaning set forth in the recitals hereto.

“**Capital Stock**” means (i) with respect to any Person that is a corporation, any and all shares, interests, participations or other equivalents (however designated and whether or not voting) of corporate stock (including, without limitation, any warrants, options, rights or other securities exercisable or convertible into equity interests or securities of such Person), and (ii) with respect to any Person that is not an individual or a corporation, any and all partnership, membership, trust or other equity interests of such Person.

“**Closing Date**” means the date the Company initially issues the Notes pursuant to the terms of the Securities Purchase Agreement.

“**Code**” means Articles 8 or 9 of the Uniform Commercial Code as in effect from time to time in the State of New York; provided that, if perfection or the effect of perfection or non-perfection or the priority of any security interest in any Collateral is governed by the Uniform Commercial Code as in effect in a jurisdiction other than the State of New York, “Code” means the Uniform Commercial Code as in effect from time to time in such other jurisdiction for purposes of the provisions hereof relating to such

perfection, effect of perfection or non-perfection or priority.

“**Collateral**” shall have the meaning set forth in Section 3(a) of this Agreement.

“**Collateral Agent**” shall have the meaning set forth in the preamble hereto.

“**Company**” shall have the meaning set forth in the preamble hereto.

“**Controlled Account Agreement**” means a deposit account control agreement or securities account control agreement with respect to a Pledged Account, pursuant to which the Collateral Agent is granted control over such Pledged Account in a manner that perfects its security interest in such Pledged Account under applicable law, all in form and substance satisfactory to the Collateral Agent, as the same may be amended, modified, supplemented, extended, renewed, restated or replaced from time to time.

“**Controlled Account Bank**” shall have the meaning set forth in Section 6(i) of this Agreement.

“**Controlled Accounts**” means the Deposit Accounts, Commodity Accounts, Securities Accounts, and/or Foreign Currency Controlled Account of the Grantors listed on Schedule IV attached hereto.

“**Copyright Licenses**” means all licenses, contracts or other agreements, whether written or oral, naming any Grantor as licensee or licensor and providing for the grant of any right to use or sell any works covered by any Copyright (including, without limitation, all Copyright Licenses set forth in Schedule II hereto).

“**Copyrights**” means all domestic and foreign copyrights, whether registered or not, including, without limitation, all copyright rights throughout the universe (whether now or hereafter arising) in any and all media (whether now or hereafter developed), in and to all original works of authorship fixed in any tangible medium of expression, acquired or used by any Grantor (including, without limitation, all copyrights described in Schedule II hereto), all applications, registrations and recordings thereof (including, without limitation, applications, registrations and recordings in the United States Copyright Office or in any similar office or agency of the United States or any other country or any political subdivision thereof), and all reissues, divisions, continuations, continuations in part and extensions or renewals thereof.

3

“**Domestic Subsidiary**” means any Subsidiary other than a Foreign Subsidiary.

“**Event of Default**” shall have the meaning set forth in Section 4(a) of the Notes.

“**Excluded Collateral**” means such portion of the voting Capital Stock of any Foreign Subsidiary in excess of 65% of the issued and outstanding voting Capital Stock of such Foreign Subsidiary at any time the pledging of more than 65% of the total outstanding voting Capital Stock of such Foreign Subsidiary would result in a material adverse tax consequence to a Grantor.

“**Foreign Currency Controlled Accounts**” means any Controlled Account of a Grantor or any of its Subsidiaries holding a deposit denominated in a currency other than United States dollar.

“**Foreign Subsidiary**” means any Subsidiary of a Grantor organized under the laws of a jurisdiction other than the United States, any of the states thereof, Puerto Rico or the District of Columbia.

“**GAAP**” means U.S. generally accepted accounting principles consistently applied.

“**Governmental Authority**” means any nation or government, any Federal, state, city, town, municipality, county, local, foreign or other political subdivision thereof or thereto and any department, commission, board, bureau, court, tribunal, instrumentality, agency or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government.

“**Guaranteed Obligations**” shall have the meaning set forth in Section 2 of each Guaranty.

“**Guarantor**” or “**Guarantors**” shall have the meaning set forth in the recitals hereto.

“**Guaranty**” or “**Guaranties**” shall have the meaning set forth in the recitals hereto

“**Insolvency Proceeding**” means any proceeding commenced by or against any Person under any provision of the Bankruptcy Code or under any other bankruptcy or insolvency law or law for the relief of debtors, any proceeding relating to assignments for the benefit of creditors, formal or informal moratoria, compositions, or extensions generally with creditors, or any proceeding seeking reorganization, arrangement, or other similar relief.

“**Intellectual Property**” means, collectively, all intellectual property rights and assets, and all rights, interests and protections that are associated with, similar to, or required for the exercise of, any of the foregoing, however arising, under the applicable laws of any jurisdiction throughout the world, whether registered or unregistered, including, without limitation, any and all: (a) Trademarks; (b) internet domain names, whether or not trademarks, registered in any top-level domain by any authorized private registrar or Governmental Authority, web addresses, web pages, websites and related content; (c) accounts with YouTube, LinkedIn, Twitter, Instagram, Facebook and other social media companies and the content found thereon (to the extent that such accounts and content are transferable pursuant to the terms, conditions, and policies of each applicable social media platform); (d) Copyrights; (e) Patents; and (f) business and technical information, databases, data collections and other confidential and proprietary information and all rights therein.

4

“**Intellectual Property Security Agreement**” means the Intellectual Property Security Agreement required to be delivered pursuant to Section 6(h)(i) of this Agreement, substantially in the form attached hereto as Exhibit A.

“**Licenses**” means, collectively, the Copyright Licenses, the Trademark Licenses and the Patent Licenses.

“**Lien**” means any mortgage, lien, pledge, charge, security interest, adverse claim or other encumbrance upon or in any property or assets.

“**Material Intellectual Property Rights**” shall have the meaning given to such term in the Securities Purchase Agreement.

“**Noteholders**” means, at any time, the holders of the Notes at such time.

“**Notes**” shall have the meaning set forth in the recitals hereto.

“**Obligations**” shall have the meaning set forth in Section 4 of this Agreement.

“**Paid in Full**” or “**Payment in Full**” means the indefeasible payment in full in cash of all of the Obligations.

“**Patent Licenses**” means all licenses, contracts or other agreements, whether written or oral, naming any Grantor as licensee or licensor and providing for the grant of any right to manufacture, use or sell any invention covered by any Patent (including, without limitation, all Patent Licenses set forth in Schedule II hereto).

“**Patents**” means all domestic and foreign letters patent, design patents, utility patents, industrial designs, inventions, trade secrets, ideas, concepts, methods, techniques, processes, proprietary information, technology, know-how, formulae, rights of publicity and other general intangibles of like nature, now existing or hereafter acquired (including, without limitation, all domestic and foreign letters patent, design patents, utility patents, industrial designs, inventions, trade secrets, ideas, concepts, methods, techniques, processes, proprietary information, technology, know-how and formulae described in Schedule II hereto), all applications, registrations and recordings thereof (including, without limitation, applications, registrations and recordings in the United States Patent and Trademark Office, or in any similar office or agency of the United States or any other country or any political subdivision thereof), and all reissues, reexaminations, divisions, continuations, continuations in part and extensions or renewals thereof.

“**Perfection Requirement**” or “**Perfection Requirements**” shall have the meaning set forth in Section 5(j) of this Agreement.

“**Permitted Liens**” shall have the meaning set forth in the Notes.

5

“**Person**” means an individual, corporation, limited liability company, partnership, association, joint-stock company, trust, unincorporated organization, joint venture or other enterprise or entity or Governmental Authority.

“**Pledged Accounts**” means all of each Grantor’s right, title and interest in all of its Deposit Accounts, Commodity Accounts and Securities Accounts (in all cases, including, without limitation, all Controlled Accounts and Foreign Currency Control Accounts).

“**Pledged Collateral**” shall have the meaning set forth in Section 2(a).

“**Pledged Debt**” shall have the meaning set forth in Section 2(a).

“**Pledged Entity**” means, each Person listed from time to time on Schedule IV hereto as a “Pledged Entity,” together with each other Person, any right in or interest in or to all or a portion of whose Securities or Capital Stock is acquired or otherwise owned by a Grantor after the date hereof.

“**Pledged Equity**” means all of each Grantor’s right, title and interest in and to all of the Securities and Capital Stock now or hereafter owned by such Grantor (including, without limitation, those interests listed opposite the name of such Grantor on Schedule IV), regardless of class or designation, including all substitutions therefor and replacements thereof, all proceeds thereof and all rights relating thereto, also including, without limitation, any certificates representing such Securities and/or Capital Stock, the right to receive any certificates representing any of such Securities and/or Capital Stock, all warrants, options, subscription, share appreciation rights and other rights, contractual or otherwise, in respect thereof, and the right to receive dividends, distributions of income, profits, surplus, or other compensation by way of income or liquidating distributions, in cash or in kind, and cash, instruments, and other property from time to time received, receivable, or otherwise distributed in respect of or in addition to, in substitution of, on account of, or in exchange for any or all of the foregoing, but excluding any Excluded Collateral.

“**Pledged Operating Agreements**” means all of each Grantor’s rights, powers and remedies under the limited liability company operating agreements of each of the Pledged Entities that is a limited liability company, as may be amended, modified, supplemented, extended, renewed, restated or replaced from time to time.

“**Pledged Partnership Agreements**” means all of each Grantor’s rights, powers, and remedies under the general or limited partnership agreements of each of the Pledged Entities that is a general or limited partnership, as may be amended, modified, supplemented, extended, renewed, restated or replaced from time to time.

“**Pledged Securities**” means any Promissory Notes, stock certificates, limited liability membership interests or other Securities, certificates or Instruments now or hereafter included in the Pledged Collateral, including all Pledged Equity, Pledged Debt and all other certificates, instruments or other documents representing or evidencing any Pledged Collateral.

“**Required Holders**” shall mean the Required Holders (as defined in the Securities Purchase Agreement).

6

“**Securities Purchase Agreement**” shall have the meaning set forth in the recitals hereto.

“**Significant Subsidiary**” shall have the meaning ascribed to such term in the Securities Purchase Agreement.

“**Subsidiary**” means any Person in which a Grantor 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 all of the foregoing, collectively, “**Subsidiaries**”.

“**Trademark Licenses**” means all licenses, contracts or other agreements, whether written or oral, naming any Grantor as licensor or licensee and providing for the grant of any right concerning any Trademark, together with any goodwill connected with and symbolized by any such licenses, contracts or agreements and the right to prepare for sale or lease and sell or lease any and all Inventory now or hereafter owned by any Grantor and now or hereafter covered by such licenses, contracts or agreements (including, without limitation, all Trademark Licenses described in Schedule II hereto).

“**Trademarks**” means all domestic and foreign trademarks, service marks, collective marks, certification marks, trade names, business names, d/b/a’s, assumed names, Internet domain names, trade styles, designs, logos and other source or business identifiers and all general intangibles of like nature, now or hereafter owned, adopted, acquired or used by any Grantor (including, without limitation, all domestic and foreign trademarks, service marks, collective marks, certification marks, trade names, business names, d/b/a’s, assumed names, Internet domain names, trade styles, designs, logos and other source or business identifiers described in Schedule II hereto), all applications, registrations and recordings thereof (including, without limitation, applications, registrations and recordings in the United States Patent and Trademark Office or in any similar office or agency of the United States, any state thereof or any other country or any political subdivision thereof), and all reissues, extensions or renewals thereof, together with all goodwill of the business symbolized by such marks and all customer lists, formulae and other Records of any Grantor relating to the distribution of products and services in connection with which any of such marks are used.

SECTION 2. Pledge of Pledged Collateral.

(a) As collateral security for the due and punctual payment and performance in full of the Obligations, as and when due, each Grantor hereby assigns and pledges to the Collateral Agent, its successors and permitted assigns, and hereby grants to the Collateral Agent, its successors and permitted assigns, for the ratable benefit of the

Collateral Agent and the Noteholders, a continuing Lien on and security interest in, all of such Grantor's right, title and interest in, to and under all of the following, wherever located and whether now or hereafter existing and whether now owned or hereafter acquired: (i) the Pledged Equity; (ii) all Promissory Notes, Security and Instruments evidencing debt now owned or at any time hereafter acquired by it (including, without limitation, those listed opposite the name of such Grantor on Schedule IV) (the "Pledged Debt"); (iii) subject to Section 2(g) and 2(h), all payments of principal or interest, dividends, distributions, cash, Promissory Notes, Securities, Instruments and other property from time to time received, receivable or otherwise distributed in respect of, in exchange for or upon the conversion of, and all other Proceeds received in respect of, the Pledged Equity and the Pledged Debt; (iv) all rights and privileges of such Grantor with respect to the Securities and other property referred to in clauses (i), (ii), and (iii) above; and (v) all Proceeds of, and Security Entitlements in respect of, any of the foregoing (the items referred to in clauses (a) through (v) above being collectively referred to as the "Pledged Collateral"); provided that the Pledged Collateral shall not include any item referred to in clauses (a) through (f) above if, for so long as and to the extent such item constitutes Excluded Collateral.

7

(b) On the Closing Date (in the case of any Grantor that grants a Lien on any of its assets hereunder on the Closing Date) or on the date on which it becomes a party to this Agreement pursuant to Section 6(m) (in the case of any other Grantor), each Grantor shall deliver or cause to be delivered to the Collateral Agent any and all Pledged Securities (other than any Uncertificated Securities, but only for so long as such Securities remain uncertificated) to the extent such Pledged Securities, in the case of Promissory Notes and other Instruments evidencing debt, are required to be delivered pursuant to Section 2(c). Thereafter, whenever such Grantor acquires any other Pledged Security (other than any Uncertificated Securities, but only for so long as such Uncertificated Securities remain uncertificated), such Grantor shall promptly, and in any event within 30 days (or such longer period as the Collateral Agent may agree to in writing), deliver or cause to be delivered to the Collateral Agent such Pledged Security as Collateral hereunder to the extent such Pledged Securities, in the case of Promissory Notes and Instruments evidencing debt, are required to be delivered pursuant to Section 2(c).

(c) Each Grantor will cause all debt for borrowed money in an aggregate principal amount of \$500,000 or more owed to such Grantor by any other Person to be evidenced by a duly executed Promissory Note, and shall cause each such Promissory Note to be pledged and delivered to the Collateral Agent, (i) on the date hereof, in the case of any such debt existing on the date hereof (or, in the case of any Grantor that becomes a party hereto after the date hereof, on the date such Grantor becomes a party hereto, in the case of any such debt existing on such date) or (ii) promptly following the incurrence thereof, in the case of any such debt incurred after the date hereof (or such other date), in each case pursuant to the terms hereof.

(d) Upon delivery to the Collateral Agent, (i) any Pledged Securities required to be delivered pursuant to Section 2(b) and/or 2(c) shall be accompanied by undated stock or note powers duly executed by the applicable Grantor in blank or other instruments of transfer reasonably satisfactory to the Collateral Agent and by such other instruments and documents as the Collateral Agent may reasonably request in order to effect the transfer of such Pledged Securities and (ii) all other property comprising part of the Pledged Collateral required to be delivered pursuant to Section 2(b) and/or 2(c) shall be accompanied by undated proper instruments of assignment duly executed by the applicable Grantor and such other instruments or documents as the Collateral Agent may reasonably request in order to effect transfer of such Pledged Collateral. Each delivery of Pledged Securities or other Pledged Collateral shall be accompanied by a schedule describing such Pledged Securities or Pledged Collateral, as the case may be, which schedule shall be deemed to supplement Schedule IV and be made a part hereof; provided that failure to attach any such schedule hereto shall not affect the validity of such pledge of such Pledged Securities. Each schedule so delivered shall supplement any prior schedules so delivered.

(e) The assignment, pledge, Lien and security interest granted in Section 2(a) are granted as security only and shall not subject the Collateral Agent or any Buyer to, or in any way alter or modify, any obligation or liability of any Grantor with respect to or arising out of the Pledged Collateral.

8

(f) If an Event of Default shall occur and be continuing and, other than in the case of a Bankruptcy Event of Default, the Collateral Agent shall have notified the Borrower of its intent to exercise such rights, (a) the Collateral Agent, shall have the right (in its sole and absolute discretion) to cause each of the Pledged Securities to be transferred of record into the name of the Collateral Agent or into the name of its nominee (as pledgee or as sub-agent) or the name of the applicable Grantor, endorsed or assigned in blank or in favor of the Collateral Agent and (b) to the extent permitted by the documentation governing such Pledged Securities and applicable law, the Collateral Agent shall have the right to exchange the certificates representing Pledged Securities for certificates of smaller or larger denominations for any purpose consistent with this Agreement. Each Grantor will promptly give to the Collateral Agent copies of any material notices received by it with respect to Pledged Securities registered in the name of such Grantor. Each Grantor will take any and all actions reasonably requested by the Collateral Agent to facilitate compliance with this Section 2(f).

(g) Unless and until an Event of Default shall have occurred and be continuing and, other than in the case of a Bankruptcy Event of Default, the Collateral Agent shall have notified the Grantors that the rights of the Grantors under this Section 2(g) are being suspended:

(i) Each Grantor shall be entitled to exercise any and all voting and/or other consensual rights and powers inuring to an owner of Pledged Collateral or any part thereof for any purpose consistent with the terms of this Agreement and the other Transaction Documents.

(ii) The Collateral Agent shall promptly execute and deliver to each Grantor, or cause to be executed and delivered to such Grantor, all such proxies, powers of attorney and other instruments as such Grantor may reasonably request in writing for the purpose of enabling such Grantor to exercise the voting and/or consensual rights and powers it is entitled to exercise pursuant to Section 2(g)(i), in each case as shall be specified in such request.

(iii) Each Grantor shall be entitled to receive and retain any and all dividends, interest, principal and other distributions paid on or distributed in respect of the Pledged Collateral, to the extent (and only to the extent) that such dividends, interest, principal and other distributions are permitted by, the other Transaction Documents and applicable laws; provided that any noncash dividends, interest, principal or other distributions that would constitute Pledged Equity or Pledged Debt, whether resulting from a subdivision, combination or reclassification of the outstanding equity interests of the issuer of any Pledged Securities or received in exchange for Pledged Securities or any part thereof, or in redemption thereof, or as a result of any merger, consolidation, acquisition or other exchange of assets to which such issuer may be a party or otherwise, shall be and become part of the Pledged Collateral, and, if received by any Grantor, shall be held in trust for the benefit of the Collateral Agent and shall, to the extent required by Section 2(b) and/or 2(c) be forthwith delivered to the Collateral Agent in the same form as so received (with any necessary endorsement or documents set forth in Section 2(d) or as otherwise reasonably requested by the Collateral Agent). So long as no Event of Default has occurred and is continuing, the Collateral Agent shall promptly deliver to each Grantor any Pledged Securities in its possession if requested to be delivered to the issuer thereof in connection with any exchange or redemption of such Pledged Securities.

9

(h) Upon the occurrence and during the continuance of an Event of Default and, other than in the case of a Bankruptcy Event of Default, after the Collateral Agent shall have notified the Grantors of the suspension of the rights of the Grantors under Section 2(g)(iii), all rights of any Grantor to dividends, interest, principal or other distributions that such Grantor is authorized to receive pursuant to Section 2(g)(iii) shall cease, and all such rights shall thereupon become vested in the Collateral Agent, which shall have the sole and exclusive right and authority to receive and retain such dividends, interest, principal or other distributions as part of the Pledged Collateral, subject to Section 2(k) and the last sentence of this Section 2(h). All dividends, interest, principal or other distributions received by any Grantor contrary to the provisions of Section 2(g) or this Section 2(h) shall be held in trust for the benefit of the Collateral Agent and shall be forthwith delivered to the Collateral Agent upon demand in the same form as so received (with any necessary endorsement reasonably requested by the Collateral Agent). Any and all money and other property paid over to or received by the Collateral Agent pursuant to the provisions of Section 2(g) and/or this Section 2(h) shall be retained by the Collateral Agent in an account to be established by the Collateral Agent upon receipt

of such money or other property, shall be held as security for the payment and performance of the Obligations and shall be applied in accordance with the provisions of Section 8. After all Events of Default have been cured or waived, and the Grantors have delivered to the Collateral Agent a certificate of an executive officer to such effect, the Collateral Agent shall promptly repay to each Grantor (without interest) all dividends, interest, principal or other distributions that such Grantor would otherwise be permitted to retain pursuant to the terms of Section 2(g)(iii) in the absence of an Event of Default and that remain in such account.

(i) Upon the occurrence and during the continuance of an Event of Default and, other than in the case of a Bankruptcy Event of Default, after the Collateral Agent shall have notified the Grantors of the suspension of the rights of the Grantors under Section 2(g)(i), all rights of any Grantor to exercise the voting and consensual rights and powers it is entitled to exercise pursuant to Section 2(g)(i), and the obligations of the Collateral Agent under Section 2(g)(ii), shall cease, and all such rights shall thereupon become vested in the Collateral Agent, which shall have the sole and exclusive right and authority to exercise such voting and consensual rights and powers subject to Section 2(k) and the last sentence of this Section 2(i); provided that, the Collateral Agent shall have the right from time to time following and during the continuance of an Event of Default to permit the Grantors to exercise such rights. After all Events of Default have been cured or waived, and the Grantors have delivered to the Collateral Agent a certificate of an executive officer to such effect, each Grantor shall have the exclusive right to exercise the voting and/or consensual rights and powers that such Grantor would otherwise be entitled to exercise pursuant to the terms of Section 2(g)(i), and the obligations of the Collateral Agent under Section 2(g)(ii) shall be reinstated.

(j) Any notice given by the Collateral Agent to the Grantors under Section 2(f) or Section 2(g) (i) may be given by telephone if promptly confirmed in writing, (ii) may be given with respect to one or more of the Grantors at the same or different times and (iii) may suspend the rights of the Grantors under Section 2(g)(i) or 2(g)(iii) in part without suspending all such rights (as specified by the Collateral Agent in its sole and absolute discretion) and without waiving or otherwise affecting the Collateral Agent's rights to give additional notices from time to time suspending other rights so long as an Event of Default has occurred and is continuing.

10

(k) Nothing contained in this Agreement shall be construed to make the Collateral Agent or any Buyer liable as a member of any limited liability company or as a partner of any partnership, and neither the Collateral Agent nor any Buyer by virtue of this Agreement or otherwise (except as referred to in the following sentence) shall have any of the duties, obligations or liabilities of a member of any limited liability company or as a partner in any partnership. The parties hereto expressly agree that, unless the Collateral Agent shall become the absolute owner of Pledged Equity consisting of a limited liability company interest or a partnership interest pursuant hereto, this Agreement shall not be construed as creating a partnership or joint venture among the Collateral Agent, any Buyer, any Grantor and/or any other Person.

SECTION 3. Grant of Security Interest

(a) As collateral security for the due and punctual payment and performance in full of the Obligations, as and when due, each Grantor hereby pledges and assigns to the Collateral Agent, its successors and permitted assigns, and hereby grants to the Collateral Agent, its successors and permitted assigns, for the ratable benefit of the Collateral Agent and the Noteholders, a continuing Lien on and security interest in, all of such Grantor's right, title and interest in, to and under all personal property and assets of such Grantor, wherever located and whether now or hereafter existing and whether now owned or hereafter acquired, of every kind, nature and description, whether tangible or intangible (together with the Pledged Collateral, the "**Collateral**"), including, without limitation, the following:

- (i) all Accounts;
- (ii) all Chattel Paper (whether tangible or Electronic Chattel Paper);
- (iii) all Commercial Tort Claims, including, without limitation, those specified on Schedule VI hereto;
- (iv) all Documents;
- (v) all Equipment;
- (vi) all Fixtures;
- (vii) all General Intangibles (including, without limitation, all Payment Intangibles);
- (viii) all Goods;
- (ix) all Instruments (including, without limitation, all Promissory Notes and each certificated Security);
- (x) all Inventory;

11

(xi) all Investment Property (and, regardless of whether classified as Investment Property under the Code, all Pledged Equity, Pledged Operating Agreements and Pledged Partnership Agreements);

(xii) all Intellectual Property and all Licenses;

(xiii) all Letter-of-Credit Rights;

(xiv) all Pledged Accounts, all cash and other property from time to time deposited therein, and all monies and property in the possession or under the control of the Collateral Agent or any Noteholder or any Affiliate, representative, agent or correspondent of the Collateral Agent or any such Noteholder;

(xv) all Supporting Obligations;

(xvi) all other tangible and intangible personal property of each Grantor (whether or not subject to the Code), including, without limitation, all Deposit Accounts and other accounts and all cash and all investments therein, all proceeds, products, offspring, accessions, rents, profits, income, benefits, substitutions and replacements of and to any of the property of any Grantor described in the preceding clauses of this Section 3(a) (including, without limitation, any proceeds of insurance thereon and all causes of action, claims and warranties now or hereafter held by each Grantor in respect of any of the items listed above), and all books, correspondence, files and other Records, including, without limitation, all tapes, desks, cards, Software, data and computer programs in the possession or under the control of any Grantor or any other Person from time to time acting for any Grantor, in each case, to the extent of such Grantor's rights therein, that at any time evidence or contain information relating to any of the property described in the preceding clauses of this Section 3(a) or are otherwise necessary or helpful in the collection or realization thereof; and

(xvii) all Proceeds, including all Cash Proceeds and Noncash Proceeds, and products of any and all of the foregoing Collateral;

in each case howsoever any Grantor's interest therein may arise or appear (whether by ownership, security interest, claim or otherwise).

(b) Notwithstanding anything herein to the contrary, the term “**Collateral**” shall not include any Excluded Collateral.

(c) Each Grantor agrees not to further encumber, or permit any other Lien (other than Permitted Liens) to exist that encumbers, any of its Intellectual Property, including, without limitation, any of its Copyrights, Copyright applications, Copyright registrations and like protections in each work of authorship and derivative work, whether published or unpublished, Licenses, Patents, Patent applications and like protections, including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions, and continuations-in-part of the same, Trademarks, service marks and, to the extent permitted under applicable law, any applications therefor, whether registered or not, and the goodwill of the business of such Grantor connected with and symbolized thereby, know-how, operating manuals, trade secret rights, rights to unpatented inventions, and any claims for damage by way of any past, present, or future infringement of any of the foregoing, in each case without the Collateral Agent’s prior written consent (which consent may be withheld or given in the Collateral Agent’s sole and absolute discretion).

12

(d) Each Grantor agrees that the pledge of the shares of Capital Stock acquired by such Grantor of any and all Persons now or hereafter existing that is a Foreign Subsidiary may be supplemented by one or more separate pledge agreements, deeds of pledge, share charges or other similar agreements or instruments, executed and delivered by such Grantor in favor of the Collateral Agent, which agreements or instruments will provide for the pledge of such shares of Capital Stock and perfection of the Lien on such shares in accordance with the laws of the applicable foreign jurisdiction. With respect to such shares of Capital Stock, the Collateral Agent may, at any time and from time to time, in its sole and absolute discretion, take such actions in such foreign jurisdictions that will result in the perfection of the Lien created in such shares of Capital Stock.

(e) In addition, to secure the prompt and complete payment and performance in full and observance of the Obligations, as and when due, and in order to induce the Buyers as aforesaid, each Grantor hereby grants to the Collateral Agent, its successors and permitted assigns, for the ratable benefit of the Collateral Agent and the Noteholders, a right of set-off against the property of such Grantor held by the Collateral Agent, for itself and for the ratable benefit of the Noteholders, consisting of property described above in Section 2(a) and/or Section 3(a) now or hereafter in the possession or custody of or in transit to the Collateral Agent, for any purpose, including safekeeping, collection or pledge, for the account of such Grantor, or as to which such Grantor may have any right or power; provided that such right shall only to be exercised after an Event of Default has occurred and is continuing.

SECTION 4. Security for Obligations. The Lien and security interest created hereby in the Collateral constitutes continuing collateral security for all of the following obligations, whether direct or indirect, absolute or contingent, and whether now existing or hereafter incurred (collectively, the “**Obligations**”):

(a) (i) the payment by the Company and each other Grantor, as and when due and payable (by scheduled maturity, required prepayment, acceleration, demand or otherwise), of all amounts from time to time owing by it in respect of the Securities Purchase Agreement, this Agreement, the Notes and the other Transaction Documents, and (ii) in the case of the Guarantors, the payment by such Guarantors, as and when due and payable of all Guaranteed Obligations under the Guaranties, including, without limitation, in both cases, (A) all principal of, interest, make-whole and other amounts on the Notes (including, without limitation, all interest, make-whole and other amounts that accrues after the commencement of any Insolvency Proceeding of any Grantor, whether or not the payment of such interest is enforceable or is allowable in such Insolvency Proceeding), and (B) all fees, interest, premiums, penalties, contract causes of action, costs, commissions, expense reimbursements, indemnifications and all other amounts due or to become due under this Agreement or any of the Transaction Documents; and

(b) the due and punctual performance and observance by each Grantor of all of its other obligations from time to time existing in respect of any of the Transaction Documents, including without limitation, with respect to any conversion or redemption rights of the Noteholders under the Notes.

13

SECTION 5. Representations and Warranties. Each Grantor represents and warrants as follows:

(a) Schedule I hereto sets forth (i) the exact legal name of each Grantor, and (ii) the state of incorporation, organization or formation and the organizational identification number of each Grantor in such state. The information set forth in Schedule I hereto with respect to such Grantor is true and accurate in all respects. Such Grantor has not previously changed its name (or operated under any other name), jurisdiction of organization or organizational identification number from those set forth in Schedule I hereto except as disclosed in Schedule I hereto.

(b) There is no pending or, to its knowledge, written notice threatening any action, suit, proceeding or claim affecting any Grantor before any Governmental Authority or any arbitrator, or any order, judgment or award issued by any Governmental Authority or arbitrator, in each case, that may adversely affect the grant by any Grantor, or the perfection, of the Lien and security interest purported to be created hereby in the Collateral, or the exercise by the Collateral Agent of any of its rights or remedies hereunder.

(c) All Federal, state and local tax returns and other reports required by applicable law to be filed by any Grantor have been filed, or extensions have been obtained, and all taxes, assessments and other governmental charges or levies imposed upon any Grantor or any property of any Grantor (including, without limitation, all federal income and social security taxes on employees’ wages) and which have become due and payable on or prior to the date hereof have been paid, except to the extent contested in good faith by proper proceedings which stay the imposition of any penalty, fine or Lien resulting from the non-payment thereof and with respect to which adequate reserves have been set aside for the payment thereof in accordance with GAAP, in each case except as would not reasonably be expected to have a Material Adverse Effect.

(d) All Equipment, Fixtures, Goods and Inventory of each Grantor now existing are, and all Equipment, Fixtures, Goods and Inventory of each Grantor hereafter existing will be, located and/or based at the addresses specified therefor in Schedule III hereto, except that each Grantor will give the Collateral Agent written notice of any change in the location of any such Collateral within 20 days of such change, other than to locations set forth on Schedule III hereto (and with respect to which the Collateral Agent has filed financing statements and otherwise fully perfected its Liens thereon). Each Grantor’s principal place of business and chief executive office, the place where each Grantor keeps its Records concerning the Collateral and all originals of all Chattel Paper in which any Grantor has any right, title or interest are located and will continue to be located at the addresses specified therefor in Schedule III hereto. None of the Accounts in which any Grantor has any right, title or interest is or will be evidenced by Promissory Notes or other Instruments.

(e) Set forth in Schedule IV hereto is a complete and accurate list, as of the date of this Agreement, of (i) all Pledged Debt, specifying the debtor thereof and the outstanding principal amount thereof as of the Closing Date, Securities and other Instruments in which any Grantor has any right, title or interest, (ii) each Pledged Account of each Grantor, together with the name and address of each institution at which each such Pledged Account is maintained, the account number for each such Pledged Account and a description of the purpose of each such Pledged Account and (iii) the name of each Foreign Currency Controlled Account of each Grantor, together with the name and address of each institution at which each such Foreign Currency Controlled Account is maintained and the amount of cash or cash equivalents held in each such Foreign Currency Controlled Account. Set forth in Schedule II hereto is a complete and correct list of each trade name used by each Grantor and the name of, and each trade name used by, each Person from which each Grantor has acquired any substantial part of the Collateral. All of the Pledged Debt, to the best of the Grantors’ knowledge (provided that no such knowledge qualification applies to Pledged Debt issued by a Grantor or a Subsidiary), is the legal, valid and binding obligation of the issuer thereof, enforceable against such issuer in accordance with its terms.

14

(f) Each Grantor has delivered to the Collateral Agent complete and correct copies of each License described in Schedule II hereto, including all schedules and exhibits thereto, which represent all of the Licenses of the Grantors existing on the date of this Agreement. Each such License sets forth the entire agreement and understanding of the parties thereto relating to the subject matter thereof, and there are no other material agreements, arrangements or understandings, written or oral, relating to the matters covered thereby or the rights of such Grantor or any of its Affiliates in respect thereof. Each material License now existing is, and any material License entered into in the future will be, the legal, valid and binding obligation of the parties thereto, enforceable against such parties in accordance with its terms. No default under any material License by any such party has occurred, nor does any defense, offset, deduction or counterclaim exist thereunder in favor of any such party.

(g) Each Grantor owns and controls, or otherwise possesses adequate rights to use, all of its Intellectual Property, which is the only Intellectual Property necessary to conduct its business in substantially the same manner as conducted as of the date hereof. Schedule II hereto sets forth a true and complete list of all Material Intellectual Property Rights owned or used by each Grantor as of the date hereof, and applications for grant or registration of Intellectual Property. To the knowledge of each Grantor, no such Material Intellectual Property Rights of any Grantor 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 other than any such expirations or terminations that, individually or in the aggregate, are not reasonably likely to have a Material Adverse Effect. Except as set forth in Schedule II (x) no Grantor has any knowledge of any infringement by such Grantor of Material Intellectual Property Rights of others which infringement is reasonably likely to have a Material Adverse Effect, (y) there is no claim, action or proceeding being made or brought, or to the knowledge of any Grantor, being threatened, against such Grantor regarding its Intellectual Property Rights (as defined in the Securities Purchase Agreement), which claim, action or proceeding would reasonably be expected to result in a Material Adverse Effect, and (z) no Grantor is aware of any facts or circumstances which might give rise to any of the foregoing infringements or claims, actions or proceedings. The Grantors have taken reasonable security measures to protect the secrecy and confidentiality of all of the Material Intellectual Property Rights.

(h) Each Grantor is and will be at all times the sole and exclusive owner of the Collateral in which such Grantor has granted a Lien and security interest hereunder free and clear of any Liens, except for (i) Permitted Liens thereon and (ii) certain Intellectual Property rights of the Company which is jointly owned by the Company with certain third parties as described in Schedule II hereto. No effective financing statement or other instrument similar in effect covering all or any part of the Collateral is on file in any recording or filing office except such as (i) may have been filed in favor of the Collateral Agent and/or the Noteholders relating to this Agreement or the other Transaction Documents, or (ii) are intended to perfect Permitted Liens existing as of the date hereof and disclosed on Schedule VII hereto.

15

(i) The exercise by the Collateral Agent of any of its rights and remedies hereunder will not contravene any law or any contractual restriction binding on or otherwise affecting any Grantor or any of its properties and will not result in or require the creation of any Lien, upon or with respect to any of its properties other than as granted pursuant to this Agreement.

(j) No authorization or approval or other action by, and no notice to or filing with, any Governmental Authority, is required for (i) the grant by each Grantor, or the perfection, of the Lien and security interest purported to be created hereby in the Collateral, or (ii) the exercise by the Collateral Agent of any of its rights and remedies hereunder, except for (A) the filing under the Code as in effect in the applicable jurisdiction of the financing statements described in Schedule V hereto, all of which financing statements have been duly filed and are in full force and effect, (B) with respect to all Pledged Accounts, and all cash and other property from time to time deposited therein, the execution of a Controlled Account Agreement with the depository or other institution with which the applicable Pledged Accounts are maintained, as provided in Section 6(i), (C) with respect to Commodity Contracts, the execution of a control agreement with the commodity intermediary with which such Commodity Contract is carried, as provided in Section 6(i), (D) with respect to the perfection of the security interest created hereby in the United States Intellectual Property and Licenses, the recording of the appropriate Intellectual Property Security Agreement in the United States Patent and Trademark Office or the United States Copyright Office, as applicable, (E) with respect to the perfection of the security interest created hereby in foreign Intellectual Property and Licenses, registrations and filings in jurisdictions located outside of the United States and covering rights in such jurisdictions relating to such foreign Intellectual Property and Licenses, (F) with respect to the perfection of the security interest created hereby in any Letter-of-Credit Rights, the consent of the issuer of the applicable letter of credit to the assignment of proceeds as provided in the Code as in effect in the applicable jurisdiction, (G) with respect to Investment Property constituting uncertificated securities, the applicable Grantor causing the issuer thereof either (i) to register the Collateral Agent as the registered owner of such securities or (ii) to agree in an authenticated record with such Grantor and the Collateral Agent that such issuer will comply with instructions with respect to such securities originated by the Collateral Agent without further consent of such Grantor, such authenticated record to be in form and substance satisfactory to the Collateral Agent, (H) with respect to Investment Property constituting certificated securities or instruments, such items to be delivered to and held by or on behalf of the Collateral Agent pursuant hereto in suitable form for transfer by delivery or accompanied by duly executed instruments of transfer or assignment in blank, all in form and substance satisfactory to the Collateral Agent, (I) with respect to any action that may be necessary to obtain control of Collateral constituting Commodity Contracts, Electronic Chattel Paper or Letter of Credit Rights, the taking of such actions, and (J) the Collateral Agent having possession of all Documents, Chattel Paper, Instruments and cash constituting Collateral (subclauses (A) through (J) each a “**Perfection Requirement**” and collectively, the “**Perfection Requirements**”).

16

(k) This Agreement creates in favor of the Collateral Agent a legal, valid and enforceable Lien on and security interest in the Collateral, as security for the Obligations. The performance of the Perfection Requirements results in the perfection of such Lien on and security interest in the Collateral. Such Lien and security interest is (or in the case of Collateral in which any Grantor obtains any right, title or interest after the date hereof, will be), subject only to Permitted Liens and the Perfection Requirements, a first priority, valid, enforceable and perfected Lien on and security interest in all personal property of each Grantor (other than Excluded Collateral). Such recordings and filings and all other action necessary to perfect and protect such Lien and security interest have been duly taken (and, in the case of Collateral in which any Grantor obtains right, title or interest after the date hereof, will be duly taken), except for the Collateral Agent’s having possession of all Documents, Chattel Paper, Instruments and cash constituting Collateral after the date hereof and the other actions, filings and recordings described above, including the Perfection Requirements, and except for the execution and delivery of the Controlled Account Agreements.

(l) As of the date hereof, no Grantor holds any Commercial Tort Claims or has knowledge of any pending Commercial Tort Claims, except for the Commercial Tort Claims described in Schedule VI.

(m) All of the Pledged Equity is presently owned by the applicable Grantor as set forth in Schedule IV free and clear of all Liens other than Permitted Liens, and is presently represented by the certificates listed on Schedule IV hereto (if applicable). As of the date hereof, there are no existing options, warrants, calls or commitments of any character whatsoever relating to the Pledged Equity other than as contemplated and permitted by the Transaction Documents. Each Grantor is the sole holder of record and the sole beneficial owner of the Pledged Equity, as applicable. None of the Pledged Equity has been issued or transferred in violation of the securities registration, securities disclosure or similar laws of any jurisdiction to which such issuance or transfer may be subject. The Pledged Equity constitutes 100% or such other percentage as set forth on Schedule IV of the issued and outstanding shares of Capital Stock of the applicable Pledged Entity. All of the Pledged Equity has been duly and validly authorized and issued by the issuer thereof and (i) in the case of Pledged Equity (other than Pledged Equity consisting of limited liability company interests or partnership interests which, pursuant to the relevant organizational or formation documents, cannot be fully paid and non-assessable), is fully paid and non-assessable.

(n) Such Grantor (i) is a corporation, limited liability company or limited partnership, as applicable, duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation, organization or formation, (ii) has all requisite corporate, limited liability company or limited partnership power and authority to conduct its business as now conducted and as presently contemplated and to execute and deliver this Agreement and each other Transaction Document to which such Grantor is a party, and to consummate the transactions contemplated hereby and thereby and (iii) is duly qualified to do business and is in good standing in each jurisdiction in which the character of the properties owned or leased by it or in which the transaction of its business makes such qualification necessary, except where the failure to be in good standing or so qualified would not be reasonably likely to result in a Material Adverse Effect.

(o) The execution, delivery and performance by each Grantor of this Agreement and each other Transaction Document to which such Grantor is a party (i) have been duly authorized by all necessary corporate, limited liability company or limited partnership action, (ii) do not and will not contravene its charter or by-laws, limited liability company or operating agreement, certificate of partnership or partnership agreement, as applicable, or any applicable law or any contractual restriction binding on such Grantor or its properties, (iii) do not and will not result in or require the creation of any Lien (other than pursuant to any Transaction Document) upon or with respect to any of its assets or properties, and (iv) do not and will not result in any default, noncompliance, suspension, revocation, impairment, forfeiture or nonrenewal of any material permit, license, authorization or approval applicable to it or its operations or any of its material assets or properties.

17

(p) This Agreement has been duly executed and delivered by each Grantor and is the legal, valid and binding obligation of such Grantor, enforceable against such Grantor in accordance with its terms, except as may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, suretyship or other similar laws and equitable principles (regardless of whether enforcement is sought in equity or at law).

(q) There are no conditions precedent to the effectiveness of this Agreement that have not been satisfied or waived.

SECTION 6. Covenants as to the Collateral. Until all of the Obligations shall have been fully performed and Paid in Full, unless the Collateral Agent shall otherwise consent in writing (in its sole and absolute discretion):

(a) Further Assurances. Each Grantor will, at its expense, at any time and from time to time, promptly execute and deliver all further instruments and documents and take all further action that the Collateral Agent may reasonably request in order to: (i) perfect and protect the Lien and security interest of the Collateral Agent created hereby; (ii) enable the Collateral Agent to exercise and enforce its rights and remedies hereunder in respect of the Collateral, including, without limitation, the Controlled Accounts; or (iii) otherwise effect the purposes of this Agreement, including, without limitation: (A) marking conspicuously all Chattel Paper and each License and, at the request of the Collateral Agent, each of its Records pertaining to the Collateral with a legend, in form and substance satisfactory to the Collateral Agent, indicating that such Chattel Paper, License or Collateral is subject to the Lien and security interest created hereby, (B) delivering and pledging to the Collateral Agent each Promissory Note, Security (subject to the limitations set forth in Section 3), Chattel Paper or other Instrument, now or hereafter owned by any Grantor, duly endorsed and accompanied by executed instruments of transfer or assignment, all in form and substance satisfactory to the Collateral Agent, (C) executing and filing (to the extent, if any, that any Grantor's signature is required thereon) or authenticating the filing of, such financing or continuation statements, or amendments thereto, as may be necessary or that the Collateral Agent may reasonably request in order to perfect and preserve the security interest created hereby, (D) furnishing to the Collateral Agent from time to time statements and schedules further identifying and describing the Collateral and such other reports in connection with the Collateral in each case as the Collateral Agent may reasonably request, all in reasonable detail, (E) if any Collateral shall be in the possession of a third party, notifying such Person of the Collateral Agent's security interest created hereby and obtaining a written acknowledgment from such Person, in form and substance reasonably satisfactory to the Collateral Agent, that such Person holds possession of the Collateral for the benefit of the Collateral Agent (for the ratable benefit of the Collateral Agent and the Noteholders), (F) if at any time after the date hereof, any Grantor acquires or holds any Commercial Tort Claim in excess of \$50,000, promptly notifying the Collateral Agent in a writing signed by such Grantor setting forth a brief description of such Commercial Tort Claim and granting to the Collateral Agent a Lien and security interest therein and in the Proceeds thereof, which writing shall incorporate the provisions hereof and shall be in form and substance satisfactory to the Collateral Agent, (G) upon the acquisition after the date hereof by any Grantor of any motor vehicle or other Equipment subject to a certificate of title or ownership (other than a motor vehicle or Equipment that is subject to a purchase money security interest), causing the Collateral Agent to be listed as the lienholder on such certificate of title or ownership and delivering evidence of the same to the Collateral Agent in accordance with Section 6(j) hereof; and (H) taking all actions required by the Code or by other law, as applicable, in any relevant Code jurisdiction, or by other law as applicable in any foreign jurisdiction.

18

(b) Location of Collateral. Each Grantor will keep the Collateral (i) at the locations specified therefor on Schedule III hereto, or (ii) at such other locations set forth on Schedule III and with respect to which the Collateral Agent has filed financing statements and otherwise fully perfected its Liens thereon, or (iii) at such other locations in the United States, provided that 30 days prior to any change in the location of any Collateral to such other location, or upon the acquisition of any Collateral to be kept at such other locations, the Grantors shall give the Collateral Agent written notice thereof and deliver to the Collateral Agent a new Schedule III indicating such new locations and such other written statements and schedules as the Collateral Agent may require.

(c) Condition of Equipment. Each Grantor will maintain or cause to be maintained and preserved in good condition, repair and working order, ordinary wear and tear excepted, the Equipment (necessary or material to its business) and will forthwith, or in the case of any loss or damage to any Equipment of any Grantor within a commercially reasonable time after the occurrence thereof, make or cause to be made all repairs, replacements and other improvements in connection therewith which are necessary or desirable, consistent with past practice, or which the Collateral Agent may reasonably request to such end. Any Grantor will promptly furnish to the Collateral Agent a statement describing in reasonable detail any such loss or damage in excess of \$50,000 per occurrence to any Equipment.

(d) Taxes, Etc. Each Grantor agrees to pay promptly when due all property and other taxes, assessments and governmental charges or levies imposed upon, and all claims (including claims for labor, materials and supplies) against, the Equipment and Inventory, except to the extent the validity thereof is being contested in good faith by proper proceedings which stay the imposition of any penalty, fine or Lien resulting from the non-payment thereof and with respect to which adequate reserves in accordance with GAAP have been set aside for the payment thereof.

(e) Insurance.

(i) Each Grantor will, at its own expense, maintain insurance (including, without limitation, comprehensive general liability, hazard, rent and business interruption insurance) with respect to its properties (including all real properties leased or owned by it) and business, in such amounts and covering such risks as is required by any Governmental Authority having jurisdiction with respect thereto or as is carried generally in accordance with sound business practice by companies in similar businesses similarly situated.

19

(ii) To the extent requested by the Collateral Agent at any time and from time to time, each such policy for liability insurance shall provide for all losses to be paid on behalf of the Collateral Agent and any Grantor as their respective interests may appear, and each policy for property damage insurance shall provide for all losses to be adjusted with, and paid directly to, the Collateral Agent. In addition to and without limiting the foregoing, to the extent requested by the Collateral Agent at any time and from time to time, each such policy shall in addition (A) name the Collateral Agent as an additional insured party and/or loss payee, as applicable, thereunder (without any representation or warranty by or obligation upon the Collateral Agent) as its interests may appear, (B) contain an agreement by the insurer that any loss thereunder shall be payable to the Collateral Agent on its own account notwithstanding any action, inaction or breach of representation or warranty by any Grantor, (C) provide that there shall be no recourse against the Collateral Agent for payment of premiums or other amounts with respect thereto, and (D) provide that at least 30 days' prior written notice of cancellation, lapse, expiration or other adverse change shall be given to the Collateral Agent by the insurer. Any Grantor will, if so requested by the Collateral Agent, deliver to the Collateral Agent original or duplicate policies of such insurance (including certificates demonstrating compliance with this Section 6(e)) and, as often as the Collateral Agent may reasonably request, a report of a reputable insurance broker with respect to such insurance. Any Grantor will also, at the request of the Collateral Agent, execute and deliver instruments of assignment of such insurance policies and cause the respective insurers to acknowledge notice of such assignment.

(iii) Reimbursement under any liability insurance maintained by any Grantor pursuant to this Section 6(e) may be paid directly to the Person who

shall have incurred liability covered by such insurance. In the case of any loss involving damage to Equipment or Inventory, to the extent paragraph (iv) of this Section 6(e) is not applicable, any proceeds of insurance involving such damage shall be paid to the Collateral Agent, and any Grantor will make or cause to be made the necessary repairs to or replacements of such Equipment or Inventory, and any proceeds of insurance maintained by any Grantor pursuant to this Section 6(e) (except as otherwise provided in paragraph (iv) in this Section 6(e)) shall be paid by the Collateral Agent to any Grantor as reimbursement for the reasonable costs of such repairs or replacements.

(iv) Notwithstanding anything to the contrary in subsection 6(e)(iii) above, following the occurrence and during the continuance of an Event of Default, all insurance payments in respect of each Grantor's properties and business shall be paid to the Collateral Agent and applied as specified in Section 8(b) hereof.

(f) Provisions Concerning the Name, Organization, Location, Accounts and Licenses

(i) Each Grantor will (A) give the Collateral Agent at least 30 days' prior written notice of any change in such Grantor's name, identity or organizational structure, (B) maintain its jurisdiction of incorporation, organization or formation as set forth in Schedule I hereto, (C) immediately notify the Collateral Agent upon obtaining an organizational identification number, if on the date hereof such Grantor did not have such identification number, and (D) keep adequate records concerning the Collateral and permit representatives of the Collateral Agent during normal business hours on reasonable notice to such Grantor, to inspect and make abstracts from such records.

20

(ii) Each Grantor will (except as otherwise provided in this subsection (f)), continue to collect, at its own expense, all amounts due or to become due under the Accounts. In connection with such collections, any Grantor may (and, at the Collateral Agent's direction, will) take such action as any Grantor or the Collateral Agent may deem necessary or advisable to enforce collection or performance of the Accounts; provided, however, that the Collateral Agent shall have the right at any time following the occurrence and during the continuance of an Event of Default to notify the Account Debtors or obligors under any Accounts of the assignment of such Accounts to the Collateral Agent and to direct such Account Debtors or obligors to make payment of all amounts due or to become due to any Grantor thereunder directly to the Collateral Agent or its designated agent and, upon such notification and at the expense of any Grantor and to the extent permitted by applicable law, to enforce collection of any such Accounts and to adjust, settle or compromise the amount or payment thereof, in the same manner and to the same extent as any Grantor might have done. After receipt by any Grantor of a notice from the Collateral Agent that the Collateral Agent has notified, intends to notify, or has enforced or intends to enforce any Grantor's rights against the Account Debtors or obligors under any Accounts as referred to in the proviso to the immediately preceding sentence, (A) all amounts and proceeds (including, without limitation, Instruments) received by any Grantor in respect of the Accounts shall be received in trust for the benefit of the Collateral Agent hereunder (for the ratable benefit of the Collateral Agent and the Noteholders), shall be segregated from other funds of any Grantor and shall be forthwith paid over to the Collateral Agent in the same form as so received (with any necessary endorsement) to be applied as specified in Section 8(b) hereof, and (B) no Grantor will adjust, settle or compromise the amount or payment of any Account or release wholly or partly any Account Debtor or obligor thereof or allow any credit or discount thereon. In addition, upon the occurrence and during the continuance of an Event of Default, the Collateral Agent may (in its sole and absolute discretion) direct any or all of the banks and financial institutions with which any Grantor either maintains a Deposit Account or a lockbox (including, without limitation, any Controlled Account) or deposits the proceeds of any Accounts to send immediately to the Collateral Agent by wire transfer (to such deposit account as the Collateral Agent shall specify, or in such other manner as the Collateral Agent shall direct) all or a portion of such Securities, cash, investments and other items held by such institution. Any such Securities, cash, investments and other items so received by the Collateral Agent shall be applied as specified in accordance with Section 8(b) hereof.

(iii) Upon the occurrence and during the continuance of any material breach or default under any material License referred to in Schedule II hereto by any party thereto other than any Grantor, each Grantor party thereto will, promptly after obtaining knowledge thereof, give the Collateral Agent written notice of the nature and duration thereof, specifying what action, if any, it has taken and proposes to take with respect thereto and thereafter will take reasonable steps to protect and preserve its rights and remedies in respect of such breach or default, or will obtain or acquire an appropriate substitute License.

(iv) Each Grantor will, at its expense, promptly deliver to the Collateral Agent a copy of each notice or other communication received by it by which any other party to any material License referred to in Schedule II hereto purports to exercise any of its rights or affect any of its obligations thereunder, together with a copy of any reply by such Grantor thereto.

(v) Each Grantor will take all action necessary or advisable to maintain in full force and effect all Material Intellectual Property Rights of such Grantor that are necessary or material to the conduct of its business.

21

(g) Transfers and Other Liens.

(i) Except as otherwise expressly permitted in the other Transaction Documents, no Grantor shall, directly or indirectly, sell, lease, license, assign, transfer, spin-off, split-off, close, convey or otherwise dispose of any Collateral whether in a single transaction or a series of related transactions, other than (A) sales, leases, licenses, assignments, transfers, conveyances and other dispositions of such assets or rights by such Grantor for fair value in the ordinary course of business consistent with past practices and (B) sales of Inventory and product in the ordinary course of business.

(ii) Except as permitted under Section 15(e) of the Notes no Grantor shall, directly or indirectly, redeem, repurchase or declare or pay any cash dividend or distribution on any of its Capital Stock.

(iii) No Grantor shall, directly or indirectly, without the prior written consent of the Required Holders, (A) issue any Notes (other than as contemplated by the Securities Purchase Agreement and the Notes) or (B) issue any other Securities that would cause a breach or default under the Notes.

(iv) No Grantor shall enter into, renew, extend or be a party to, any transaction or series of related transactions (including, without limitation, the purchase, sale, lease, transfer or exchange of property or assets of any kind or the rendering of services of any kind) with any Affiliate, except transactions permitted under Section 15(m) of the Notes or otherwise in the ordinary course of business in a manner and to an extent consistent with past practice and necessary or desirable for the prudent operation of its business, for fair consideration and on terms no less favorable to it than would be obtainable in a comparable arm's length transaction with a Person that is not an Affiliate thereof.

(v) No Grantor will create, suffer to exist or grant any Lien upon or with respect to any Collateral other than a Permitted Lien.

22

(h) Intellectual Property.

(i) If applicable, each Grantor shall duly execute and deliver the applicable Intellectual Property Security Agreement. Each Grantor (either itself or through licensees) will, and will cause each licensee thereof to, take all action necessary to maintain all of the Material Intellectual Property Rights in full force and effect, including, without limitation, using the proper statutory notices, numbers and markings (relating to patent, trademark and copyright rights) and using the Trademarks on each applicable trademark class of goods in order to so maintain the Trademarks in full force and free from any claim of abandonment for non-use, and each Grantor will not (nor

permit any licensee thereof to) do any act or knowingly omit to do any act whereby any Material Intellectual Property Rights may become abandoned, cancelled or invalidated; provided, however, that so long as no Event of Default has occurred and is continuing, no Grantor shall have an obligation to use or to maintain any Material Intellectual Property Rights (A) that relates solely to any product or work, that is no longer necessary or material and has been, or is in the process of being, discontinued, abandoned or terminated in the ordinary course of business and consistent with the exercise of reasonable business judgment, (B) that is being replaced with Material Intellectual Property Rights substantially similar to the Material Intellectual Property Rights that may be abandoned or otherwise become invalid, so long as the failure to use or maintain such Material Intellectual Property Rights does not materially adversely affect the validity of such replacement Material Intellectual Property Rights and so long as such replacement Material Intellectual Property Rights is subject to the Lien created by this Agreement and does not have a material adverse effect on the business of any Grantor, (C) that is substantially the same as another Material Intellectual Property Rights that is in full force, so long the failure to use or maintain such Material Intellectual Property Rights does not materially adversely affect the validity of such replacement Material Intellectual Property Rights and so long as such other Material Intellectual Property Rights is subject to the Lien and security interest created by this Agreement and does not have a material adverse effect on the business of any Grantor or (D) where the failure to so use or maintain the Material Intellectual Property Rights is expressly permitted by the Notes. Each Grantor will cause to be taken all necessary steps in any proceeding before the United States Patent and Trademark Office and the United States Copyright Office or any similar office or agency in any other country or political subdivision thereof to maintain each registration of the Material Intellectual Property Rights and application for registration of Material Intellectual Property Rights (other than the Material Intellectual Property Rights described in the proviso to the immediately preceding sentence), including, without limitation, filing of renewals, affidavits of use, affidavits of incontestability and opposition, interference and cancellation proceedings and payment of maintenance fees, filing fees, taxes or other governmental fees. If any Material Intellectual Property Rights (other than Material Intellectual Property Rights described in the proviso to the second sentence of subsection (i) of this clause (h)) is infringed, misappropriated, diluted or otherwise violated in any material respect by a third party, each Grantor shall (x) upon learning of such infringement, misappropriation, dilution or other violation, promptly notify the Collateral Agent and (y) promptly sue for infringement, misappropriation, dilution or other violation, seek injunctive relief where appropriate and recover any and all damages for such infringement, misappropriation, dilution or other violation, or take such other actions as such Grantor shall deem appropriate under the circumstances to protect such Material Intellectual Property Rights. Each Grantor shall furnish to the Collateral Agent from time to time upon its request statements and schedules further identifying and describing the Material Intellectual Property Rights and such other reports in connection with the Material Intellectual Property Rights as the Collateral Agent may reasonably request, all in reasonable detail and promptly upon request of the Collateral Agent, following receipt by the Collateral Agent of any such statements, schedules or reports, each Grantor shall modify this Agreement by amending Schedule II hereto, as the case may be, to include any Material Intellectual Property Rights, which is or hereafter becomes part of the Collateral under this Agreement and shall execute and authenticate such documents and do such acts as shall be necessary or, in the reasonable judgment of the Collateral Agent, desirable to subject such Material Intellectual Property Rights to the Lien and security interest created by this Agreement. Notwithstanding anything herein to the contrary, upon the occurrence and during the continuance of an Event of Default, no Grantor may abandon, surrender or otherwise permit any Material Intellectual Property Rights to become abandoned, cancelled or invalid without the prior written consent of the Collateral Agent, and if any Material Intellectual Property Rights is infringed, misappropriated, diluted or otherwise violated in any material respect by a third party, each Grantor will take such reasonable action as the Collateral Agent shall deem appropriate under the circumstances to protect such Material Intellectual Property Rights.

23

(ii) In no event shall any Grantor, either itself or through any agent, employee, licensee or designee, file an application for the registration of any Patent, Trademark or Copyright or the United States Copyright Office or the United States Patent and Trademark Office, as applicable, or in any similar office or agency of the United States or any country or any political subdivision thereof unless it gives the Collateral Agent prior written notice thereof. Upon request of the Collateral Agent, any Grantor shall execute, authenticate and deliver any and all assignments, agreements, instruments, documents and papers as the Collateral Agent may reasonably request to evidence the Collateral Agent's security interest hereunder in such Material Intellectual Property Rights and the General Intangibles of any Grantor relating thereto or represented thereby, and each Grantor hereby appoints the Collateral Agent its attorney-in-fact to execute and/or authenticate and file all such writings for the foregoing purposes, all acts of such attorney being hereby ratified and confirmed, and such power (being coupled with an interest) shall be irrevocable until all Obligations are fully performed and Paid in Full.

(i) Pledged Accounts.

(A) Within twenty-one (21) days of the date hereof, each Grantor shall cause each bank and other financial institution which maintains a Controlled Account (each a "**Controlled Account Bank**") to execute and deliver to the Collateral Agent, in form and substance reasonably satisfactory to the Collateral Agent, a Controlled Account Agreement with respect to such Controlled Account, duly executed by each Grantor and such Controlled Account Bank, pursuant to which such Controlled Account Bank among other things shall irrevocably agree, with respect to such Controlled Account, that (i) at any time after any Grantor, the Collateral Agent or any Buyer shall have notified such Controlled Account Bank that an Event of Default has occurred and is continuing, such Controlled Account Bank will comply with any and all instructions originated by the Collateral Agent directing the disposition of the funds in such Controlled Account without further consent by such Grantor, (ii) such Controlled Account Bank shall waive, subordinate or agree not to exercise any rights of setoff or recoupment or any other claim against the applicable Controlled Account other than for payment of its service fees and other charges directly related to the administration of such Controlled Account and for returned checks or other items of payment, (iii) at any time after any Grantor, the Collateral Agent or any Buyer shall have notified such Controlled Account Bank that an Event of Default has occurred and is continuing, with respect to each such Controlled Account, such Controlled Account Bank shall not comply with any instructions, directions or orders of any form with respect to such Controlled Accounts other than instructions, directions or orders originated by the Collateral Agent, (iv) all funds deposited by any Grantor with such Controlled Account Bank shall be subject to a perfected, first priority security interest in favor of the Collateral Agent, and (v) upon receipt of written notice from the Collateral Agent during the continuance of an Event of Default, such Controlled Account Bank shall immediately send to the Collateral Agent by wire transfer (to such account as the Collateral Agent shall specify, or in such other manner as the Collateral Agent shall direct) all such funds and other items held by it. No Grantor shall create or maintain any Pledged Account without the prior written consent of the Collateral Agent (in its sole and absolute discretion) and complying with the terms of this Agreement.

(B) If at any time after the Closing Date, the average daily balance of any Account that is not subject to a Controlled Account Agreement exceeds \$10,000 during any calendar month (including the calendar month in which the Closing Date occurs), the Company shall, either (x) within two (2) Business Days following such date, transfer to a Controlled Account an amount sufficient to reduce the total aggregate amount of the cash in such Account to an amount not in excess of \$10,000 or (y) within twenty-one (21) calendar days following the last day of such calendar month, deliver to the Collateral Agent a Controlled Account Agreement with respect to such Account, duly executed by such Grantor and the depository bank in which such Account is maintained.

24

(C) Notwithstanding anything to the contrary contained in Section 6(i)(B) above, and without limiting any of the foregoing, if at any time on or after the date that is twenty-one (21) calendar days following the Closing Date, the total aggregate amount of the cash of the Company and any of its Subsidiaries, in the aggregate, that is not held in a Controlled Account exceeds \$50,000 (the "**Maximum Free Cash Amount**"), the Company shall within two (2) Business Days following such date, either (x) transfer to a Controlled Account an amount sufficient to reduce the total aggregate amount of the cash that is not held in a Controlled Account to an amount not in excess of the Maximum Free Cash Amount or (y) deliver to the Collateral Agent a Controlled Account Agreement with respect to such Account (or Accounts), duly executed by such Grantor and the depository bank in which such Account (or Accounts) is maintained, as necessary to reduce the total aggregate amount of the cash that is not held in a Controlled Account to an amount not in excess of the Maximum Free Cash Amount.

(j) Motor Vehicles.

(i) Upon the Collateral Agent's written request, each Grantor shall deliver to the Collateral Agent originals of the certificates of title or ownership for each motor vehicle with a value in excess of \$10,000 owned by it, with the Collateral Agent listed as lienholder, for the ratable benefit of the Collateral Agent and the Noteholders.

(ii) Each Grantor hereby appoints the Collateral Agent as its attorney-in-fact, effective the date hereof and terminating upon the termination of this Agreement, for the purpose of (A) executing on behalf of such Grantor title or ownership applications for filing with appropriate Governmental Authorities to enable motor vehicles now owned or hereafter acquired by such Grantor to be retitled and the Collateral Agent listed as lienholder thereof, (B) filing such applications with such Governmental Authorities, and (C) executing such other agreements, documents and instruments on behalf of, and taking such other action in the name of, such Grantor as the Collateral Agent may deem necessary or advisable to accomplish the purposes hereof (including, without limitation, for the purpose of creating in favor of the Collateral Agent a perfected Lien on the motor vehicles and exercising the rights and remedies of the Collateral Agent hereunder). This appointment as attorney-in-fact is coupled with an interest and is irrevocable until all of the Obligations are fully performed and Paid in Full.

(iii) Any certificates of title or ownership delivered pursuant to the terms hereof shall be accompanied by accurate odometer statements for each motor vehicle covered thereby.

(iv) So long as no Event of Default shall have occurred and be continuing, upon the request of any Grantor, the Collateral Agent shall execute and deliver to any Grantor such instruments as such Grantor shall reasonably request to remove the notation of the Collateral Agent as lienholder on any certificate of title for any motor vehicle; provided, however, that any such instruments shall be delivered, and the release effective, only upon receipt by the Collateral Agent of a certificate from any Grantor stating that such motor vehicle is to be sold or has suffered a casualty loss (with title thereto in such case passing to the casualty insurance company therefor in settlement of the claim for such loss) and the amount that any Grantor will receive as sale proceeds or insurance proceeds. Any proceeds of such sale or casualty loss shall be paid to the Collateral Agent hereunder immediately upon receipt, to be applied to the Obligations then outstanding.

25

(k) Control. Each Grantor hereby agrees to take any or all action that may be necessary or that the Collateral Agent may reasonably request in order for the Collateral Agent to obtain "control" in accordance with Sections 9-105 through 9-107 of the Code with respect to the following Collateral: (i) Electronic Chattel Paper, (ii) Investment Property, and (iii) Letter-of-Credit Rights.

(l) Inspection and Reporting. Thrice per year, or at any time after an Event of Default has occurred and is continuing, each Grantor shall permit the Collateral Agent, or any agent or representatives thereof or such attorneys, accountant or other professionals or other Persons as the Collateral Agent may designate (at Grantors' sole cost and expense) (i) to examine and make copies of and abstracts from any Grantor's Records and books of account, (ii) to visit and inspect its properties, (iii) to verify materials, leases, Instruments, Accounts, Inventory and other assets of any Grantor from time to time, and (iv) to conduct audits, physical counts, appraisals, valuations and/or examinations at the locations of any Grantor. Each Grantor shall also permit the Collateral Agent, or any agent or representatives thereof or such attorneys, accountants or other professionals or other Persons as the Collateral Agent may designate to discuss such Grantor's affairs, finances and accounts with any of its directors, officers, managerial employees, attorneys, independent accountants or any of its other representatives. Without limiting the foregoing, the Collateral Agent may, at any time after an Event of Default has occurred and is continuing, in the Collateral Agent's own name, in the name of a nominee of the Collateral Agent, or in the name of any Grantor communicate (by mail, telephone, facsimile or otherwise) with the Account Debtors of such Grantor, parties to contracts with such Grantor and/or obligors in respect of Instruments or Pledged Debt of such Grantor to verify with such Persons, to the Collateral Agent's satisfaction, the existence, amount, terms of, and any other matter relating to, Accounts, Instruments, Pledged Debt, Chattel Paper, payment intangibles and/or other receivables.

(m) Future Subsidiaries. If any Grantor hereafter creates or acquires any Subsidiary, simultaneously with the creation or acquisition of such Subsidiary, such Grantor shall (i) if such Subsidiary is a Significant Subsidiary and a Domestic Subsidiary, cause such Subsidiary to become a party to this Agreement as an additional "Grantor" hereunder, (ii) deliver to the Collateral Agent updated Schedules to this Agreement, as appropriate (including, without limitation, an updated Schedule IV to reflect the grant by such Grantor of a Lien on and security interest in all Pledged Debt and Pledged Equity now or hereafter owned by such Grantor), (iii) deliver to the Collateral Agent the stock certificates representing all of the Capital Stock of such Subsidiary, along with undated stock powers for each such certificates, executed in blank (or, if any such shares of Capital Stock are uncertificated, confirmation and evidence reasonably satisfactory to the Collateral Agent that the security interest in such uncertificated securities has been transferred to and perfected by the Collateral Agent, in accordance with Sections 8-313, 8-321 and 9-115 of the Code or any other similar or local or foreign law that may be applicable), and (iv) duly execute and/or cause to be delivered to the Collateral Agent, in form and substance acceptable to the Collateral Agent, such opinions of counsel and other documents as the Collateral Agent shall request with respect thereto; provided, however, that no Grantor shall be required to pledge any Excluded Collateral. Each Grantor hereby authorizes the Collateral Agent to attach such updated Schedules to this Agreement and agrees that all Pledged Equity and Pledged Debt listed on any updated Schedule delivered to the Collateral Agent shall for all purposes hereunder be considered Collateral. The Grantors agree that the pledge of the shares of Capital Stock acquired by a Grantor of Foreign Subsidiary may be supplemented by one or more separate pledge agreements, deeds of pledge, share charges, or other similar agreements or instruments, executed and delivered by the relevant Grantor in favor of the Collateral Agent, which pledge agreements will provide for the pledge of such shares of Capital Stock in accordance with the laws of the applicable foreign jurisdiction. With respect to such shares of Capital Stock, the Collateral Agent may, at any time and from time to time, in its sole discretion, take actions in such foreign jurisdictions that will result in the perfection of the Lien created in such shares of Capital Stock.

26

SECTION 7. Additional Provisions Concerning the Collateral

(a) To the maximum extent permitted by applicable law, and for the purpose of taking any action that the Collateral Agent may deem necessary or advisable to accomplish the purposes of this Agreement, each Grantor hereby (i) authorizes the Collateral Agent to execute any such agreements, instruments or other documents in such Grantor's name and to file such agreements, instruments or other documents in such Grantor's name and in any appropriate filing office, (ii) authorizes the Collateral Agent at any time and from time to time to file, one or more financing or continuation statements, and amendments thereto, relating to the Collateral (including, without limitation, any such financing statements that (A) describe the Collateral as "all assets" or "all personal property" (or words of similar effect) or that describe or identify the Collateral by type or in any other manner as the Collateral Agent may determine regardless of whether any particular asset of such Grantor falls within the scope of Article 9 of the Code or whether any particular asset of such Grantor constitutes part of the Collateral, and (B) contain any other information required by Part 5 of Article 9 of the Code for the sufficiency or filing office acceptance of any financing statement, continuation statement or amendment, including, without limitation, whether such Grantor is an organization, the type of organization and any organizational identification number issued to such Grantor) and (iii) ratifies such authorization to the extent that the Collateral Agent has filed any such financing or continuation statements, or amendments thereto, prior to the date hereof. A photocopy or other reproduction of this Agreement or any financing statement covering the Collateral or any part thereof shall be sufficient as a financing statement where permitted by law.

(b) After an Event of Default has occurred and for so long as such Event of Default is continuing, each Grantor hereby irrevocably appoints the Collateral Agent as its attorney-in-fact and proxy, with full authority in the place and stead of such Grantor and in the name of such Grantor or otherwise, from time to time in the Collateral Agent's discretion, to take any action and to execute any instrument which the Collateral Agent may deem necessary or advisable to accomplish the purposes of this Agreement, including, without limitation, (i) to obtain and adjust insurance required to be paid to the Collateral Agent pursuant to Section 6(e) hereof, (ii) to ask, demand, collect, sue for, recover, compound, receive and give acquittance and receipts for moneys due and to become due under or in respect of any Collateral, (iii) to receive, endorse, and collect any drafts or other Instruments, Documents and Chattel Paper in connection with clause (i) or (ii) above, (iv) to file any claims or take any action or institute any action, suit or proceedings which the Collateral Agent may deem necessary or desirable for the collection of any Collateral or otherwise to enforce the rights of the Collateral Agent and the Noteholders with respect to any Collateral, (v) to execute assignments, licenses and other documents to enforce the rights of the Collateral Agent and the Noteholders with respect to any Collateral, and (vi) to verify any and all information with respect to any and all Accounts. This power is coupled with an interest and is irrevocable until all of the Obligations are fully performed and Paid in Full.

27

(c) For the purpose of enabling the Collateral Agent to exercise rights and remedies hereunder, at such time after an Event of Default shall have occurred and be continuing as the Collateral Agent shall be lawfully entitled to exercise such rights and remedies, and for no other purpose, each Grantor hereby grants to the Collateral Agent, to the extent assignable, an irrevocable, non-exclusive license (exercisable without payment of royalty or other compensation to any Grantor) to use, assign, license or sublicense any Intellectual Property in which such Grantor now or hereafter has any right, title or interest, wherever the same may be located, including, without limitation, in such license reasonable access to all media in which any of the licensed items may be recorded or stored and to all computer programs used for the compilation or printout thereof. Notwithstanding anything contained herein to the contrary, but subject to the provisions of the Securities Purchase Agreement that limit the right of any Grantor to dispose of its property, and Section 6(g) and Section 6(h) hereof, so long as no Event of Default shall have occurred and be continuing, any Grantor may exploit, use, enjoy, protect, license, sublicense, assign, sell, dispose of or take other actions with respect to the Intellectual Property in the ordinary course of its business and as otherwise expressly permitted by any of the other Transaction Documents. In furtherance of the foregoing, unless an Event of Default shall have occurred and be continuing, the Collateral Agent shall from time to time, upon the request of any Grantor, execute and deliver any instruments, certificates or other documents, in the form so requested, which such Grantor shall have certified are appropriate (in such Grantor's judgment) to allow it to take any action permitted above (including relinquishment of the license provided pursuant to this clause (c) as to any Intellectual Property). Further, upon the full performance and Payment in Full of all of the Obligations, the Collateral Agent (subject to Section 11(e) hereof) shall release and reassign to any Grantor all of the Collateral Agent's right, title and interest in and to the Intellectual Property, and the Licenses, all without recourse, representation or warranty whatsoever. The exercise of rights and remedies hereunder by the Collateral Agent shall not terminate the rights of the holders of any licenses or sublicenses theretofore granted by each Grantor in accordance with the second sentence of this clause (c). Each Grantor hereby releases the Collateral Agent from any claims, causes of action and demands at any time arising out of or with respect to any actions taken or omitted to be taken by the Collateral Agent under the powers of attorney granted herein other than actions taken or omitted to be taken through the Collateral Agent's gross negligence or willful misconduct, as determined by a final judgment of a court of competent jurisdiction no longer subject to appeal.

(d) If any Grantor fails to perform any agreement or obligation contained herein, the Collateral Agent may itself perform, or cause performance of, such agreement or obligation, in the name of such Grantor or the Collateral Agent, and the reasonable expenses of the Collateral Agent incurred in connection therewith shall be payable by such Grantor pursuant to Section 9 hereof and such obligation shall be secured by the Collateral.

(e) The powers conferred on the Collateral Agent hereunder are solely to protect its interest in the Collateral and shall not impose any duty upon it to exercise any such powers. Except for the safe custody of any Collateral in its possession and the accounting for moneys actually received by it hereunder, the Collateral Agent shall have no duty as to any Collateral or as to the taking of any necessary steps to preserve rights against prior parties or any other rights pertaining to any Collateral.

28

(f) Anything herein to the contrary notwithstanding (i) each Grantor shall remain liable under the Licenses and otherwise with respect to any of the Collateral to the extent set forth therein to perform all of its obligations thereunder to the same extent as if this Agreement had not been executed, (ii) the exercise by the Collateral Agent of any of its rights or remedies hereunder shall not release any Grantor from any of its obligations under the Licenses or otherwise in respect of the Collateral, and (iii) the Collateral Agent shall not have any obligation or liability by reason of this Agreement under the Licenses or with respect to any of the other Collateral, nor shall the Collateral Agent be obligated to perform any of the obligations or duties of any Grantor thereunder or to take any action to collect or enforce any claim for payment assigned hereunder.

(g) As long as no Event of Default shall have occurred and be continuing and, other than in the case of a Bankruptcy Event of Default, until written notice shall be given to the applicable Grantor:

(i) Each Grantor shall have the right, from time to time, to vote and give consents with respect to the Pledged Equity, or any part thereof for all purposes not inconsistent with the provisions of this Agreement, the Securities Purchase Agreement or any other Transaction Document; provided, however, that no vote shall be cast, and no consent shall be given or action taken, which would have the effect of impairing the position or interest of the Collateral Agent in respect of the Pledged Equity or which would authorize, effect or consent to (unless and to the extent not prohibited by the Securities Purchase Agreement):

- (A) the dissolution or liquidation, in whole or in part, of a Pledged Entity;
- (B) the consolidation or merger of a Pledged Entity with any other Person;
- (C) the sale, disposition or encumbrance of all or substantially all of the assets of a Pledged Entity, except for Liens in favor of the Collateral Agent;
- (D) any change in the authorized number of shares, the stated capital or the authorized share capital of a Pledged Entity or the issuance of any additional shares of its Capital Stock; or
- (E) the alteration of the voting rights with respect to the Capital Stock of a Pledged Entity.

(h) (i) Each Grantor shall be entitled, from time to time, to collect and receive for its own use all: (A) cash dividends and interest paid in respect of the Pledged Equity to the extent not in violation of the Securities Purchase Agreement; (B) dividends and interest paid or payable other than in cash in respect of any Pledged Equity, and instruments and other property received, receivable or otherwise distributed in respect of, or in exchange for, any Pledged Equity; (C) dividends and other distributions paid or payable in cash in respect of any Pledged Equity in connection with a partial or total liquidation or dissolution or in connection with a reduction of capital, capital surplus or paid-in capital of a Pledged Entity; and (D) cash paid, payable or otherwise distributed, in respect of principal of, or in redemption of, or in exchange for, any Pledged Equity; provided, however, that until actually paid all rights to such distributions shall remain subject to the Lien created by this Agreement; and

29

(ii) all dividends and interest (other than such cash dividends and interest as are permitted to be paid to any Grantor in accordance with clause (i) above) and all other distributions in respect of any of the Pledged Equity, whenever paid or made, shall be delivered to the Collateral Agent to hold as Pledged Equity and shall, if received by any Grantor, be received in trust for the benefit of the Collateral Agent (for the ratable benefit of the Collateral Agent and the Noteholders), be segregated from the other property or funds of such Grantor, and be forthwith delivered to the Collateral Agent as Pledged Equity in the same form as so received (with any necessary endorsement).

SECTION 8. Remedies Upon Event of Default: Application of Proceeds. If any Event of Default shall have occurred and be continuing:

(a) The Collateral Agent may exercise in respect of the Collateral, in addition to any other rights and remedies provided for herein, in any other Transaction Document or otherwise available to it, all of the rights and remedies of a secured party upon default under the Code (whether or not the Code applies to the affected Collateral), and also may (i) take absolute control of the Collateral, including, without limitation, transfer into the Collateral Agent's name or into the name of its nominee or nominees (to the extent the Collateral Agent has not theretofore done so) and thereafter receive, for the ratable benefit of itself and the Noteholders, all payments made thereon, give all consents, waivers and ratifications in respect thereof and otherwise act with respect thereto as though it were the outright owner thereof, (ii) require each Grantor to, and each Grantor hereby agrees that it will at its expense and upon request of the Collateral Agent forthwith, assemble all or part of its respective Collateral as directed by the Collateral Agent and make it available to the Collateral Agent at a place or places to be designated by the Collateral Agent that is reasonably convenient to both parties, and the Collateral Agent may enter into and occupy any premises owned or leased by any Grantor where the Collateral or any part thereof is located or assembled for a reasonable period in order to effectuate the Collateral Agent's rights and remedies hereunder or under law, without obligation to any Grantor in respect of such occupation, and (iii) without advance notice

except as specified below and without any obligation to prepare or process the Collateral for sale (provided that the Collateral Agent shall give notice to any Grantor as promptly as practicable with respect to any such sale), (A) sell the Collateral or any part thereof in one or more parcels at public or private sale (including, without limitation, by credit bid), at any of the Collateral Agent's offices or elsewhere, for cash, on credit or for future delivery, and at such price or prices and upon such other terms as the Collateral Agent may deem commercially reasonable and/or (B) lease, license or dispose of the Collateral or any part thereof upon such terms as the Collateral Agent may deem commercially reasonable. Each Grantor agrees that, to the extent notice of sale or any other disposition of its respective Collateral shall be required by law, at least ten (10) days' notice to any Grantor of the time and place of any public sale or the time after which any private sale or other disposition of its respective Collateral is to be made shall constitute reasonable notification. The Collateral Agent shall not be obligated to make any sale or other disposition of any Collateral regardless of notice of sale having been given. The Collateral Agent may adjourn any public or private sale from time to time by announcement at the time and place fixed therefor, and such sale may, without further notice, be made at the time and place to which it was so adjourned. Each Grantor hereby waives any claims against the Collateral Agent and the Noteholders arising by reason of the fact that the price at which its respective Collateral may have been sold at a private sale was less than the price which might have been obtained at a public sale or was less than the aggregate amount of the Obligations, even if the Collateral Agent accepts the first offer received and does not offer such Collateral to more than one offeree, and waives all rights that any Grantor may have to require that all or any part of such Collateral be marshaled upon any sale (public or private) thereof. Each Grantor hereby acknowledges that (i) any such sale of its respective Collateral by the Collateral Agent shall be made without warranty, (ii) the Collateral Agent may specifically disclaim any warranties of title, possession, quiet enjoyment or the like, and (iii) such actions set forth in clauses (i) and (ii) above shall not adversely affect the commercial reasonableness of any such sale of Collateral. In addition to the foregoing, (1) upon written notice to any Grantor from the Collateral Agent after and during the continuance of an Event of Default, such Grantor shall cease any use of the Intellectual Property or any trademark, patent or copyright similar thereto for any purpose described in such notice; (2) the Collateral Agent may, at any time and from time to time after and during the continuance of an Event of Default, upon 10 days' prior notice to such Grantor, license, whether general, special or otherwise, and whether on an exclusive or non-exclusive basis, any of the Intellectual Property, throughout the universe for such term or terms, on such conditions, and in such manner, as the Collateral Agent shall in its sole discretion determine; and (3) the Collateral Agent may, at any time, pursuant to the authority granted in Section 7 hereof or otherwise (such authority being effective upon the occurrence and during the continuance of an Event of Default), execute and deliver on behalf of such Grantor, one or more instruments of assignment of the Intellectual Property (or any application or registration thereof), in form suitable for filing, recording or registration in any country.

30

(b) Any cash held by the Collateral Agent as Collateral and all Cash Proceeds received by the Collateral Agent in respect of any sale or disposition of or collection from, or other realization upon, all or any part of the Collateral shall be applied as follows (subject to the provisions of the Securities Purchase Agreement): first, to pay any fees, indemnities or expense reimbursements then due to the Collateral Agent (including, without limitation, those described in Section 9 hereof); second, to pay any fees, indemnities or expense reimbursements then due to the Noteholders, on a pro rata basis; third, to pay interest due under the Notes owing to the Noteholders, on a pro rata basis; fourth, to pay or prepay principal in respect of the Notes, whether or not then due, owing to the Noteholders, on a pro rata basis; fifth, to pay or prepay any other Obligations, whether or not then due, in such order and manner as the Collateral Agent shall elect, consistent with the provisions of the Securities Purchase Agreement. Any surplus of such cash or Cash Proceeds held by the Collateral Agent and remaining after the full performance and Payment in Full of all of the Obligations shall be paid over to the Company or as a court of competent jurisdiction may otherwise direct.

(c) In the event that the proceeds of any such sale, disposition, collection or realization are insufficient to pay all amounts to which the Collateral Agent and the Noteholders are legally entitled, each Grantor shall be, jointly and severally, liable for the deficiency, together with interest thereon at the highest rate specified in the Notes for interest on overdue principal thereof or such other rate as shall be fixed by applicable law, together with the costs of collection and the reasonable fees, costs, expenses and other charges of any attorneys employed by the Collateral Agent to collect such deficiency.

31

(d) To the extent that applicable law imposes duties on the Collateral Agent to exercise rights and remedies in a commercially reasonable manner, each Grantor acknowledges and agrees that it is commercially reasonable for the Collateral Agent (i) to fail to incur expenses deemed significant by the Collateral Agent to prepare Collateral for disposition or otherwise to transform raw material or work in process into finished goods or other finished products for disposition, (ii) to fail to obtain third party consents for access to Collateral to be disposed of, or to obtain or, if not required by other law, to fail to obtain governmental or third party consents for the collection or disposition of Collateral to be collected or disposed of, (iii) to fail to exercise collection remedies against Account Debtors or other Persons obligated on Collateral or to remove Liens on or any adverse claims against Collateral, (iv) to exercise collection remedies against Account Debtors and other Persons obligated on Collateral directly or through the use of collection agencies and other collection specialists, (v) to advertise dispositions of Collateral through publications or media of general circulation, whether or not the Collateral is of a specialized nature, (vi) to contact other Persons, whether or not in the same business as any Grantor, for expressions of interest in acquiring all or any portion of such Collateral, (vii) to hire one or more professional auctioneers to assist in the disposition of Collateral, whether or not the Collateral is of a specialized nature, (viii) to dispose of Collateral by utilizing internet sites that provide for the auction of assets of the types included in the Collateral or that have the reasonable capacity of doing so, or that match buyers and sellers of assets, (ix) to dispose of assets in wholesale rather than retail markets, (x) to disclaim disposition warranties, such as title, possession or quiet enjoyment, (xi) to purchase insurance or credit enhancements to insure the Collateral Agent against risks of loss, collection or disposition of Collateral or to provide to the Collateral Agent a guaranteed return from the collection or disposition of Collateral, or (xii) to the extent deemed appropriate by the Collateral Agent, to obtain the services of brokers, investment bankers, consultants, attorneys and other professionals to assist the Collateral Agent in the collection or disposition of any of the Collateral. Each Grantor acknowledges that the purpose of this section is to provide non-exhaustive indications of what actions or omissions by the Collateral Agent would be commercially reasonable in the Collateral Agent's exercise of rights and remedies against the Collateral and that other actions or omissions by the Collateral Agent shall not be deemed commercially unreasonable solely on account of not being indicated in this section. Without limitation of the foregoing, nothing contained in this section shall be construed to grant any rights to any Grantor or to impose any duties on the Collateral Agent that would not have been granted or imposed by this Agreement or by applicable law in the absence of this section.

(e) The Collateral Agent shall not be required to marshal any present or future collateral security (including, but not limited to, this Agreement and the Collateral) for, or other assurances of payment of, the Obligations or any of them or to resort to such collateral security or other assurances of payment in any particular order, and all of the Collateral Agent's rights and remedies hereunder and in respect of such collateral security and other assurances of payment shall be cumulative and in addition to all other rights and remedies, however existing or arising. To the extent that any Grantor lawfully may, each Grantor hereby agrees that it will not invoke any law relating to the marshaling of collateral which might cause delay in or impede the enforcement of the Collateral Agent's rights and remedies under this Agreement or under any other instrument creating or evidencing any of the Obligations or under which any of the Obligations is outstanding or by which any of the Obligations is secured or payment thereof is otherwise assured, and, to the extent that it lawfully may, each Grantor hereby irrevocably waives the benefits of all such laws.

SECTION 9. Indemnity and Expenses.

(a) Each Grantor agrees, jointly and severally, to defend, protect, indemnify and hold the Collateral Agent and each of the Noteholders harmless from and against any and all claims, damages, losses, liabilities, obligations, penalties, fees, costs and expenses (including, without limitation, reasonable legal fees, costs, expenses, and disbursements of such Person's counsel) to the extent that they arise out of or otherwise result from this Agreement (including, without limitation, enforcement of this Agreement), except to the extent resulting from such Person's gross negligence or willful misconduct, as determined by a final judgment of a court of competent jurisdiction no longer subject to appeal.

32

(b) Each Grantor agrees, jointly and severally, to pay to the Collateral Agent upon demand the amount of any and all reasonable, out of pocket costs and expenses, including the reasonable fees, costs, expenses and disbursements of counsel for the Collateral Agent and of any experts and agents (including, without limitation, any collateral trustee which may act as agent of the Collateral Agent), which the Collateral Agent may incur in connection with (i) the preparation, negotiation, execution, delivery,

recordation, administration, amendment, waiver or other modification or termination of this Agreement, (ii) the custody, preservation, use or operation of, or the sale of, collection from, or other realization upon, any Collateral, (iii) the exercise or enforcement of any of the rights or remedies of the Collateral Agent hereunder, or (iv) the failure by any Grantor to perform or observe any of the provisions hereof.

SECTION 10. Notices, Etc. All notices and other communications provided for hereunder shall be in writing and shall be mailed (by certified mail, first-class postage prepaid and return receipt requested), telecopied, e-mailed or delivered, if to any Grantor, to the Company's address, or if to the Collateral Agent or any Noteholder, to it at its respective address, each as set forth in Section 9(f) of the Securities Purchase Agreement; or as to any such Person, at such other address as shall be designated by such Person in a written notice to all other parties hereto complying as to delivery with the terms of this Section 10. All such notices and other communications shall be deemed to have been delivered: (i) upon receipt, when delivered personally; (ii) with respect to notice 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) (A) if sent prior to 6:00 PM New York time on any Business Day, when sent, or (B) if sent on or after 6:00 PM New York time on any Trading Day (as defined in the Notes), on the next Business Day; 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. For the avoidance of doubt, all Foreign Subsidiaries, as Grantors, hereby appoint the Company as its agent for receipt of service of process and all notices and other communications in the United States at the address specified below.

SECTION 11. Miscellaneous.

(a) No amendment of any provision of this Agreement shall be effective unless it is in writing and signed by each Grantor and the Collateral Agent (and approved by the Required Holders), and no waiver of any provision of this Agreement, and no consent to any departure by each Grantor therefrom, shall be effective unless it is in writing and signed by each Grantor and the Collateral Agent (and approved by the Required Holders), and then such waiver or consent shall be effective only in the specific instance and for the specific purpose for which given. No amendment, modification or waiver of this Agreement shall be effective to the extent that it (1) applies to fewer than all of the holders of Notes or (2) imposes any obligation or liability on any holder of Notes without such holder's prior written consent (which may be granted or withheld in such holder's sole and absolute discretion).

33

(b) No failure on the part of the Collateral Agent to exercise, and no delay in exercising, any right or remedy hereunder or under any of the other Transaction Documents shall operate as a waiver thereof; nor shall any single or partial exercise of any such right or remedy preclude any other or further exercise thereof or the exercise of any other right or remedy. The rights and remedies of the Collateral Agent or any Noteholder provided herein and in the other Transaction Documents are cumulative and are in addition to, and not exclusive of, any rights or remedies provided by law. The rights and remedies of the Collateral Agent or any Noteholder under any of the other Transaction Documents against any party thereto are not conditional or contingent on any attempt by such Person to exercise any of its rights or remedies under any of the other Transaction Documents against such party or against any other Person, including but not limited to, any Grantor.

(c) Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining portions hereof or thereof or affecting the validity or enforceability of such provision in any other jurisdiction.

(d) This Agreement shall create a continuing Lien on and security interest in the Collateral and shall (i) remain in full force and effect until the full performance and Payment in Full of the Obligations, and (ii) be binding on each Grantor and all other Persons who become bound as debtor to this Agreement in accordance with Section 9-203(d) of the Code and shall inure, together with all rights and remedies of the Collateral Agent and the Noteholders hereunder, to the ratable benefit of the Collateral Agent and the Noteholders and their respective permitted successors, transferees and assigns. Without limiting the generality of clause (ii) of the immediately preceding sentence, without notice to any Grantor, the Collateral Agent and the Noteholders may assign or otherwise transfer their rights and obligations under this Agreement and any of the other Transaction Documents, to any other Person and such other Person shall thereupon become vested with all of the benefits in respect thereof granted to the Collateral Agent and the Noteholders herein or otherwise. Upon any such assignment or transfer, all references in this Agreement to the Collateral Agent or any such Noteholder shall mean the assignee of the Collateral Agent or such Noteholder. None of the rights or obligations of any Grantor hereunder may be assigned, delegated or otherwise transferred without the prior written consent of the Collateral Agent in its sole and absolute discretion, and any such assignment, delegation or transfer without such consent of the Collateral Agent shall be null and void.

(e) Upon the full performance and Payment in Full of the Obligations, (i) this Agreement and the security interests created hereby shall terminate and all rights to the Collateral shall revert to the respective Grantor that granted such security interests hereunder, and (ii) the Collateral Agent will, upon any Grantor's request and at such Grantor's expense, (A) return to such Grantor such of the Collateral as shall not have been sold or otherwise disposed of or applied pursuant to the terms hereof and (B) execute and deliver to such Grantor such documents as such Grantor shall reasonably request to evidence such termination, all without any representation, warranty or recourse whatsoever.

34

(f) Governing Law; Jurisdiction; Jury Trial.

(i) 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 of law (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdiction other than the State of New York.

(ii) 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 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, defense or objection 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 Section 9(f) of the Securities Purchase 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 the Collateral Agent or the Noteholders from bringing suit or taking other legal action against any Grantor in any other jurisdiction to collect on a Grantor's obligations or to enforce a judgment or other court ruling in favor of the Collateral Agent or a Noteholder.

(iii) WAIVER OF JURY TRIAL, ETC. EACH PARTY 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.

(iv) Each Party irrevocably and unconditionally waives any right it may have to claim or recover in any legal action, suit or proceeding referred to in this Section any special, exemplary, indirect, incidental, punitive or consequential damages.

(g) Section headings herein are included for convenience of reference only and shall not constitute a part of this Agreement for any other purpose.

(h) This Agreement may be executed in any number of counterparts and by different parties hereto in separate counterparts, each of which shall be deemed to be an original, but all of which taken together constitute one and the same Agreement. Delivery of any executed counterpart of a signature page of this Agreement by pdf, facsimile or other electronic transmission shall be effective as delivery of a manually executed counterpart of this Agreement.

(i) This Agreement shall continue to be effective or be reinstated, as the case may be, if at any time any payment of any of the Obligations is rescinded or must otherwise be returned by the Collateral Agent, any Noteholder or any other Person (upon (i) the occurrence of any Insolvency Proceeding of any of the Company or any Grantor or (ii) otherwise, in all cases as though such payment had not been made).

35

SECTION 12. Material Non-Public Information. Upon receipt or delivery by any Grantor of any notice in accordance with the terms of this Agreement, unless such Grantor has in good faith determined that the matters relating to such notice do not constitute material, non-public information relating to the Grantor or any of its Subsidiaries, such Grantor shall within one (1) Business Day after any such receipt or delivery publicly disclose such material, non-public information on a Current Report on Form 8-K or otherwise. In the event that such Grantor believes that a notice contains material, non-public information relating to such Grantor or any of its Subsidiaries, such Grantor so shall indicate to the Collateral Agent and any applicable Noteholder contemporaneously with delivery of such notice, and in the absence of any such indication, the Collateral Agent and each Noteholder shall be allowed to presume that all matters relating to such notice do not constitute material, non-public information relating to such Grantor or its Subsidiaries. The foregoing shall not apply to notices or other information provided by the Company to the Collateral Agent that may constitute material, non-public information relating to the Company or any of its Subsidiaries that the Collateral Agent agrees in writing to receive, with the understanding that such information shall not be publicly disclosed under this Section 12. Nothing contained in this Section 12 shall limit any obligations of any Grantor, or any rights or remedies of the Collateral Agent or any Noteholder, under Section 4(i) of the Securities Purchase Agreement.

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36

IN WITNESS WHEREOF, each Grantor has caused this Agreement to be executed and delivered by its officer thereunto duly authorized, as of the date first above written.

GRANTORS:

LUCID DIAGNOSTICS INC.

By: _____

Name: _____

Title: _____

LUCIDDX LABS INC.

By: _____

Name: _____

Title: _____

CAPNOSTICS, LLC

By: _____

Name: _____

Title: _____

ACCEPTED BY:

ALTO OPPORTUNITY MASTER FUND,
SPC SEGREGATED MASTER
PORTFOLIO B,
as Collateral Agent

By: _____

Name: _____

Title: _____

GUARANTY

This GUARANTY, dated as of March __, 2023 (this “**Guaranty**”), is made by each of the undersigned (each a “**Guarantor**”, and collectively, the “**Guarantors**”), in favor of Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B, in its capacity as collateral agent (in such capacity, the “**Collateral Agent**” as hereinafter further defined) for the “**Buyers**” party to the Securities Purchase Agreement (each as defined below).

WITNESSETH:

WHEREAS, Lucid Diagnostics Inc., a company organized under the laws of the State of Delaware, with offices located at 360 Madison Avenue, 25th Floor, New York, NY 10017 (the “**Company**”), and each party listed as a “**Buyer**” on the Schedule of Buyers attached thereto (collectively, the “**Buyers**”) are parties to the Securities Purchase Agreement, dated as of the date hereof (as amended, restated, extended, replaced or otherwise modified from time to time, the “**Securities Purchase Agreement**”), pursuant to which the Company shall be required to sell, and the Buyers shall purchase or have the right to purchase, the “**Notes**” issued pursuant thereto (as such Notes may be amended, restated, extended, replaced or otherwise modified from time to time in accordance with the terms thereof, collectively, the “**Notes**”);

WHEREAS, the Securities Purchase Agreement requires that the Guarantors execute and deliver to the Collateral Agent, (i) a guaranty guaranteeing all of the obligations of the Company under the Securities Purchase Agreement, the Notes and the other Transaction Documents (as defined below); and (ii) a Security and Pledge Agreement, dated as of the date hereof, granting the Collateral Agent a lien on and security interest in all of their assets and properties (the “**Security Agreement**”); and

WHEREAS, each Guarantor has determined that the execution, delivery and performance of this Guaranty directly benefits, and is in the best interest of, such Guarantor.

NOW, THEREFORE, in consideration of the premises and the agreements herein and in order to induce the Buyers to perform under the Securities Purchase Agreement, each Guarantor hereby agrees with each Buyer as follows:

SECTION 1. Definitions. Reference is hereby made to the Securities Purchase Agreement and the Notes for a statement of the terms thereof. All terms used in this Guaranty and the recitals hereto which are defined in the Securities Purchase Agreement or the Notes, and which are not otherwise defined herein shall have the same meanings herein as set forth therein. In addition, the following terms when used in the Guaranty shall have the meanings set forth below:

“**Bankruptcy Code**” means Chapter 11 of Title 11 of the United States Code, 11 U.S.C §§ 101 et seq. (or other applicable bankruptcy, insolvency or similar laws).

“**Business Day**” means any day other than Saturday, Sunday or other day on which commercial banks in New York City 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 New York City generally are open for use by customers on such day.

“**Buyer**” or “**Buyers**” shall have the meaning set forth in the recitals hereto.

“**Capital Stock**” means (i) with respect to any Person that is a corporation, any and all shares, interests, participations or other equivalents (however designated and whether or not voting) of corporate stock (including, without limitation, any warrants, options, rights or other securities exercisable or convertible into equity interests or securities of such Person), and (ii) with respect to any Person that is not a corporation, any and all partnership, membership or other equity interests of such Person.

“**Collateral**” means all assets and properties of the Company and each Guarantor, wherever located and whether now or hereafter existing and whether now owned or hereafter acquired, of every kind and description, tangible or intangible, including, without limitation, the collateral described in Section 3(a) of the Security Agreement.

“**Collateral Agent**” shall have the meaning set forth in the recitals hereto.

“**Company**” shall have the meaning set forth in the recitals hereto.

“**Governmental Authority**” means any nation or government, any Federal, state, city, town, municipality, county, local, foreign or other political subdivision thereof or thereto and any department, commission, board, bureau, instrumentality, agency or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government.

“**Guaranteed Obligations**” shall have the meaning set forth in Section 2 of this Guaranty.

“**Guarantor**” or “**Guarantors**” shall have the meaning set forth in the recitals hereto.

“**Indemnified Party**” shall have the meaning set forth in Section 13(a) of this Guaranty.

“**Insolvency Proceeding**” means any proceeding commenced by or against any Person under any provision of the Bankruptcy Code or under any other bankruptcy or insolvency law, assignments for the benefit of creditors, formal or informal moratoria, compositions, or extensions generally with creditors, or proceedings seeking reorganization, arrangement, or other similar relief.

“**Notes**” shall have the meaning set forth in the recitals hereto.

“**Obligations**” shall have the meaning set forth in Section 3 of the Security Agreement.

“**Other Taxes**” shall have the meaning set forth in Section 12(a)(iv) of this Guaranty.

“**Paid in Full**” or “**Payment in Full**” means the indefeasible payment in full in cash of all of the Guaranteed Obligations.

“**Person**” means an individual, corporation, limited liability company, partnership, association, joint-stock company, trust, unincorporated organization, joint venture or other enterprise or entity or Governmental Authority.

“**Securities Purchase Agreement**” shall have the meaning set forth in the recitals hereto.

“**Security Agreement**” shall have the meaning set forth in the recitals hereto.

“**Subsidiary**” means any Person in which a Guarantor 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 all of the foregoing, collectively, “**Subsidiaries**”.

“**Taxes**” shall have the meaning set forth in Section 12(a) of this Guaranty.

“**Transaction Party**” means the Company and each Guarantor, collectively, “**Transaction Parties**”.

“**Transaction Documents**” shall have the meaning set forth in the Security Agreement.

SECTION 2. Guaranty.

(a) The Guarantors, jointly and severally, hereby unconditionally and irrevocably, guaranty to the Collateral Agent, for the benefit of the Collateral Agent and the Buyers, the punctual payment, as and when due and payable, by stated maturity or otherwise, of all Obligations, including, without limitation, all interest, make-whole and other amounts that accrue after the commencement of any Insolvency Proceeding of the Company or any Guarantor, whether or not the payment of such interest, make-whole and/or other amounts are enforceable or are allowable in such Insolvency Proceeding, and all fees, interest, premiums, penalties, causes of actions, costs, commissions, expense reimbursements, indemnifications and all other amounts due or to become due under any of the Transaction Documents (all of the foregoing collectively being the “**Guaranteed Obligations**”), and agrees to pay any and all reasonable costs and expenses (including counsel fees and expenses) incurred by the Collateral Agent in enforcing any rights under this Guaranty or any other Transaction Document. Without limiting the generality of the foregoing, each Guarantor’s liability hereunder shall extend to all amounts that constitute part of the Guaranteed Obligations and would be owed by the Company to the Collateral Agent or any Buyer under the Securities Purchase Agreement and the Notes but for the fact that they are unenforceable or not allowable due to the existence of an Insolvency Proceeding involving any Transaction Party.

3

(b) Each Guarantor, and by its acceptance of this Guaranty, the Collateral Agent and each Buyer, hereby confirms that it is the intention of all such Persons that this Guaranty and the Guaranteed Obligations of each Guarantor hereunder not constitute a fraudulent transfer or conveyance for purposes of the Bankruptcy Code, the Uniform Fraudulent Conveyance Act, the Uniform Fraudulent Transfer Act or any similar foreign, federal, provincial, state, or other applicable law to the extent applicable to this Guaranty and the Guaranteed Obligations of each Guarantor hereunder. To effectuate the foregoing intention, the Collateral Agent, the Buyers and the Guarantors hereby irrevocably agree that the Guaranteed Obligations of each Guarantor under this Guaranty at any time shall be limited to the maximum amount as will result in the Guaranteed Obligations of such Guarantor under this Guaranty not constituting a fraudulent transfer or conveyance.

SECTION 3. Guaranty Absolute; Continuing Guaranty; Assignments

(a) The Guarantors, jointly and severally, guaranty that the Guaranteed Obligations will be paid strictly in accordance with the terms of the Transaction Documents, regardless of any law, regulation or order now or hereafter in effect in any jurisdiction affecting any of such terms or the rights of the Collateral Agent or any Buyer with respect thereto. The obligations of each Guarantor under this Guaranty are independent of the Guaranteed Obligations, and a separate action or actions may be brought and prosecuted against any Guarantor to enforce such obligations, irrespective of whether any action is brought against any Transaction Party or whether any Transaction Party is joined in any such action or actions. The liability of any Guarantor under this Guaranty shall be as a primary obligor (and not merely as a surety) and shall be irrevocable, absolute and unconditional irrespective of, and each Guarantor hereby irrevocably waives, to the extent permitted by law, any defenses it may now or hereafter have in any way relating to, any or all of the following:

(i) any lack of validity or enforceability of any Transaction Document;

(ii) any change in the time, manner or place of payment of, or in any other term of, all or any of the Guaranteed Obligations, or any other amendment or waiver of or any consent to departure from any Transaction Document, including, without limitation, any increase in the Guaranteed Obligations resulting from the extension of additional credit to any Transaction Party or extension of the maturity of any Guaranteed Obligations or otherwise;

(iii) any taking, exchange, release or non-perfection of any Collateral;

(iv) any taking, release or amendment or waiver of or consent to departure from any other guaranty, for all or any of the Guaranteed Obligations;

(v) any change, restructuring or termination of the corporate, limited liability company or partnership structure or existence of any Transaction Party;

(vi) any manner of application of Collateral or any other collateral, or proceeds thereof, to all or any of the Guaranteed Obligations, or any manner of sale or other disposition of any Collateral or any other collateral for all or any of the Guaranteed Obligations or any other Obligations of any Transaction Party under the Transaction Documents or any other assets of any Transaction Party or any of its Subsidiaries;

(vii) any failure of the Collateral Agent or any Buyer to disclose to any Transaction Party any information relating to the business, condition (financial or otherwise), operations, performance, properties or prospects of any other Transaction Party now or hereafter known to the Collateral Agent or any Buyer (each Guarantor waiving any duty on the part of the Collateral Agent or any Buyer to disclose such information);

4

(viii) taking any action in furtherance of the release of any Guarantor or any other Person that is liable for the Obligations from all or any part of any liability arising under or in connection with any Transaction Document without the prior written consent of the Collateral Agent; or

(ix) any other circumstance (including, without limitation, any statute of limitations) or any existence of or reliance on any representation by the Collateral Agent or any Buyer that might otherwise constitute a defense available to, or a discharge of, any Transaction Party or any other guarantor or surety.

(b) This Guaranty shall continue to be effective or be reinstated, as the case may be, if at any time any payment of any of the Guaranteed Obligations is rescinded or must otherwise be returned by the Collateral Agent, any Buyer, or any other Person upon the insolvency, bankruptcy or reorganization of any Transaction Party or otherwise, all as though such payment had not been made.

(c) This Guaranty is a continuing guaranty and shall (i) remain in full force and effect until Payment in Full of the Guaranteed Obligations (other than inchoate indemnity obligations) and shall not terminate for any reason prior to the respective Maturity Date of each Note (other than Payment in Full of the Guaranteed Obligations) and (ii) be binding upon each Guarantor and its respective successors and assigns. This Guaranty shall inure to the benefit of and be enforceable by the Collateral Agent, the Buyers, and their respective successors, and permitted pledgees, transferees and assigns. Without limiting the generality of the foregoing sentence, the Collateral Agent or any Buyer may pledge, assign or otherwise transfer all or any portion of its rights and obligations under and subject to the terms of any Transaction Document to any

other Person, and such other Person shall thereupon become vested with all the benefits in respect thereof granted to the Collateral Agent or such Buyer (as applicable) herein or otherwise, in each case as provided in the Securities Purchase Agreement or such Transaction Document.

SECTION 4. Waivers. To the extent permitted by applicable law, each Guarantor hereby waives promptness, diligence, protest, notice of acceptance and any other notice or formality of any kind with respect to any of the Guaranteed Obligations and this Guaranty and any requirement that the Collateral Agent exhaust any right or take any action against any Transaction Party or any other Person or any Collateral. Each Guarantor acknowledges that it will receive direct and indirect benefits from the financing arrangements contemplated herein and that the waiver set forth in this Section 4 is knowingly made in contemplation of such benefits. The Guarantors hereby waive any right to revoke this Guaranty, and acknowledge that this Guaranty is continuing in nature and applies to all Guaranteed Obligations, whether existing now or in the future. Without limiting the foregoing, to the extent permitted by applicable law, each Guarantor hereby unconditionally and irrevocably waives (a) any defense arising by reason of any claim or defense based upon an election of remedies by the Collateral Agent or any Buyer that in any manner impairs, reduces, releases or otherwise adversely affects the subrogation, reimbursement, exoneration, contribution or indemnification rights of such Guarantor or other rights of such Guarantor to proceed against any of the other Transaction Parties, any other guarantor or any other Person or any Collateral, and (b) any defense based on any right of set-off or counterclaim against or in respect of the Guaranteed Obligations of such Guarantor hereunder. Each Guarantor hereby unconditionally and irrevocably waives any duty on the part of the Collateral Agent or any Buyer to disclose to such Guarantor any matter, fact or thing relating to the business, condition (financial or otherwise), operations, performance, properties or prospects of any other Transaction Party or any of its Subsidiaries now or hereafter known by the Collateral Agent or a Buyer.

5

SECTION 5. Subrogation. No Guarantor may exercise any rights that it may now or hereafter acquire against any Transaction Party or any other guarantor that arise from the existence, payment, performance or enforcement of any Guarantor's obligations under this Guaranty, including, without limitation, any right of subrogation, reimbursement, exoneration, contribution or indemnification and any right to participate in any claim or remedy of the Collateral Agent or any Buyer against any Transaction Party or any other guarantor or any Collateral, whether or not such claim, remedy or right arises in equity or under contract, statute or common law, including, without limitation, the right to take or receive from any Transaction Party or any other guarantor, directly or indirectly, in cash or other property or by set-off or in any other manner, payment or security solely on account of such claim, remedy or right, unless and until there has been Payment in Full of the Guaranteed Obligations. If any amount shall be paid to a Guarantor in violation of the immediately preceding sentence at any time prior to Payment in Full of the Guaranteed Obligations and all other amounts payable under this Guaranty, such amount shall be held in trust for the benefit of the Collateral Agent and shall forthwith be paid to the Collateral Agent to be credited and applied to the Guaranteed Obligations and all other amounts payable under this Guaranty, whether matured or unmatured, in accordance with the terms of the Transaction Document, or to be held as Collateral for any Guaranteed Obligations or other amounts payable under this Guaranty thereafter arising. If (a) any Guarantor shall make payment to the Collateral Agent of all or any part of the Guaranteed Obligations, and (b) there has been Payment in Full of the Guaranteed Obligations, the Collateral Agent will, at such Guarantor's request and expense, execute and deliver to such Guarantor appropriate documents, without recourse and without representation or warranty, necessary to evidence the transfer by subrogation to such Guarantor of an interest in the Guaranteed Obligations resulting from such payment by such Guarantor.

SECTION 6. Representations, Warranties and Covenants.

(a) Each Guarantor hereby represents and warrants as of the date first written above as follows:

(i) such Guarantor (A) is a corporation, limited liability company or limited partnership duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization as set forth on the signature pages hereto, (B) has all requisite corporate, limited liability company or limited partnership power and authority to conduct its business as now conducted and as presently contemplated and to execute, deliver and perform its obligations under this Guaranty and each other Transaction Document to which such Guarantor is a party, and to consummate the transactions contemplated hereby and thereby and (C) is duly qualified to do business and is in good standing in each jurisdiction in which the character of the properties owned or leased by it or in which the transaction of its business makes such qualification necessary except where the failure to be so qualified (individually or in the aggregate) would not result in a Material Adverse Effect.

6

(ii) The execution, delivery and performance by such Guarantor of this Guaranty and each other Transaction Document to which such Guarantor is a party (A) have been duly authorized by all necessary corporate, limited liability company or limited partnership action, (B) do not and will not contravene its charter, articles, certificate of formation or by-laws, its limited liability company or operating agreement or its certificate of partnership or partnership agreement, as applicable, or any applicable law or any contractual restriction binding on such Guarantor or its properties do not and will not result in or require the creation of any lien, security interest or encumbrance (other than pursuant to any Transaction Document) upon or with respect to any of its properties, and (C) do not and will not result in any default, noncompliance, suspension, revocation, impairment, forfeiture or nonrenewal of any material permit, license, authorization or approval applicable to it or its operations or any of its properties.

(iii) No authorization or approval or other action by, and no notice to or filing with, any Governmental Authority or other Person is required in connection with the due execution, delivery and performance by such Guarantor of this Guaranty or any of the other Transaction Documents to which such Guarantor is a party (other than expressly provided for in any of the Transaction Documents).

(iv) This Guaranty has been duly executed and delivered by each Guarantor and is, and each of the other Transaction Documents to which such Guarantor is or will be a party, when executed and delivered, will be, a legal, valid and binding obligation of such Guarantor, enforceable against such Guarantor in accordance with its terms, except as may be limited by the Bankruptcy Code or other applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, suretyship or similar laws and equitable principles (regardless of whether enforcement is sought in equity or at law).

(v) There is no pending or, to the best knowledge of such Guarantor, threatened action, suit or proceeding against such Guarantor or to which any of the properties of such Guarantor is subject, before any court or other Governmental Authority or any arbitrator that (A) if adversely determined, could reasonably be expected to have a Material Adverse Effect or (B) relates to this Guaranty or any of the other Transaction Documents to which such Guarantor is a party or any transaction contemplated hereby or thereby.

(vi) Such Guarantor (A) has read and understands the terms and conditions of the Securities Purchase Agreement and the other Transaction Documents, and (B) now has and will continue to have independent means of obtaining information concerning the affairs, financial condition and business of the Company and the other Transaction Parties, and has no need of, or right to obtain from the Collateral Agent or any Buyer, any credit or other information concerning the affairs, financial condition or business of the Company or the other Transaction Parties.

(vii) There are no conditions precedent to the effectiveness of this Guaranty that have not been satisfied or waived.

7

(b) Each Guarantor (so long as it is a Guarantor) covenants and agrees that until Payment in Full of the Guaranteed Obligations, it will comply with each of the covenants (except to the extent applicable only to a public company) which are set forth in Section 4 of the Securities Purchase Agreement as if such Guarantor were a party thereto.

SECTION 7. Right of Set-off. Upon the occurrence and during the continuance of any Event of Default, the Collateral Agent and any Buyer may, and is hereby authorized to, at any time and from time to time, without notice to the Guarantors (any such notice being expressly waived by each Guarantor) and to the fullest extent permitted by law, set-off and apply any and all deposits (general or special, time or demand, provisional or final) at any time held and other indebtedness at any time owing by the Collateral Agent or any Buyer to or for the credit or the account of any Guarantor against any and all obligations of the Guarantors now or hereafter existing under this Guaranty or any other Transaction Document, irrespective of whether or not the Collateral Agent or any Buyer shall have made any demand under this Guaranty or any other Transaction Document and although such obligations may be contingent or unmatured. The Collateral Agent and each Buyer agrees to notify the relevant Guarantor promptly after any such set-off and application made by the Collateral Agent or such Buyer, provided that the failure to give such notice shall not affect the validity of such set-off and application. The rights of the Collateral Agent or any Buyer under this Section 7 are in addition to other rights and remedies (including, without limitation, other rights of set-off) which the Collateral Agent or such Buyer may have under this Guaranty or any other Transaction Document in law or otherwise.

SECTION 8. Limitation on Guaranteed Obligations.

(a) Notwithstanding any provision herein contained to the contrary, each Guarantor's liability hereunder shall be limited to an amount not to exceed as of any date of determination the greater of:

(i) the amount of all Guaranteed Obligations, plus interest thereon at the applicable Interest Rate as specified in the Note; and

(ii) the amount which could be claimed by the Collateral Agent from any Guarantor under this Guaranty without rendering such claim voidable or avoidable under the Bankruptcy Code or under any applicable state Uniform Fraudulent Transfer Act, Uniform Fraudulent Conveyance Act or similar statute or common law after taking into account, among other things, Guarantor's right of contribution and indemnification.

(b) Each Guarantor agrees that the Guaranteed Obligations may at any time and from time to time exceed the amount of the liability of such Guarantor hereunder without impairing the guaranty hereunder or affecting the rights and remedies of the Collateral Agent or any Buyer hereunder or under applicable law.

8

(c) No payment made by the Company, any Guarantor, any other guarantor or any other Person or received or collected by the Collateral Agent or any other Buyer from the Company, any of the Guarantors, any other guarantor or any other Person by virtue of any action or proceeding or any set-off or appropriation or application at any time or from time to time in reduction of or in payment of the Guaranteed Obligations shall be deemed to modify, reduce, release or otherwise affect the liability of any Guarantor hereunder which shall, notwithstanding any such payment (other than any payment made by such Guarantor in respect of the Guaranteed Obligations or any payment received or collected from such Guarantor in respect of the Guaranteed Obligations), remain liable for the Guaranteed Obligations up to the maximum liability of such Guarantor hereunder until after all of the Guaranteed Obligations and all other amounts payable under this Guaranty shall have been Paid in Full.

(d) Upon any Guarantor ceasing to be a Significant Subsidiary (to the extent the circumstances as a result of which it ceases to be a Significant Subsidiary are not prohibited by the terms of the Transaction Documents), such Guarantor shall be automatically released from its obligations under this Guaranty. The Collateral Agent shall execute any documents reasonably requested by the Company or any Guarantor to evidence the release of such Guarantor from its obligations hereunder, provided that Company or Guarantor, as applicable, agrees to pay all reasonable costs and expenses of the Collateral Agent (including the reasonable and documented fees and expenses of counsel for the Collateral Agent) in connection with such release and execution of such documents.

SECTION 9. Notices, Etc. Any notices, consents, waivers or other communications required or permitted to be given under the terms of this Guaranty must be in writing and will be deemed to have been delivered: (i) upon receipt, when delivered personally; (ii) upon receipt, when sent by facsimile (provided confirmation of transmission is mechanically or electronically generated and kept on file by the sending party); or (iii) one (1) Business Day after deposit with an nationally recognized overnight courier service with next day delivery specified, in each case, properly addressed to the party to receive the same. All notices and other communications provided for hereunder shall be sent, if to any Guarantor, to the Company's address and/or facsimile number, or if to the Collateral Agent or any Buyer, to it at its respective address and/or facsimile number, each as set forth in Section 9(f) of the Securities Purchase Agreement.

SECTION 10. Governing Law: Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Guaranty shall be governed by the internal laws of the State of New York, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of New York or any other jurisdictions) that would cause the application of the laws of any jurisdiction other than the State of New York. Each Guarantor 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, obligation or defense 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 Section 9(f) of the Securities Purchase 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 or operate to preclude the Collateral Agent or the Buyers from bringing suit or taking other legal action against any Guarantor in any other jurisdiction to collect on a Guarantor's obligations or to enforce a judgment or other court ruling in favor of the Collateral Agent or a Buyer.

9

SECTION 11. WAIVER OF JURY TRIAL, ETC. EACH GUARANTOR 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 GUARANTY, ANY OTHER TRANSACTION DOCUMENT OR ANY TRANSACTION CONTEMPLATED HEREBY OR THEREBY.

SECTION 12. Taxes.

(a) All payments made by any Guarantor hereunder or under any other Transaction Document shall be made in accordance with the terms of the respective Transaction Document and shall be made without set-off, counterclaim, withholding, deduction or other defense. Without limiting the foregoing, all such payments shall be made free and clear of and without deduction or withholding for any present or future taxes, levies, imposts, deductions, charges or withholdings, and all liabilities with respect thereto, excluding taxes imposed on the net income of the Collateral Agent or any Buyer by the jurisdiction in which the Collateral Agent or such Buyer is organized or where it has its principal lending office (all such nonexcluded taxes, levies, imposts, deductions, charges, withholdings and liabilities, collectively or individually, "**Taxes**"). If any Guarantor shall be required to deduct or to withhold any Taxes from or in respect of any amount payable hereunder or under any other Transaction Document:

(i) the amount so payable shall be increased to the extent necessary so that after making all required deductions and withholdings (including Taxes on amounts payable to the Collateral Agent or any Buyer pursuant to this sentence) the Collateral Agent or each Buyer receives an amount equal to the sum it would have received had no such deduction or withholding been made,

(ii) such Guarantor shall make such deduction or withholding,

(iii) such Guarantor shall pay the full amount deducted or withheld to the relevant Governmental Authority in accordance with applicable law, and

(iv) as promptly as possible thereafter, such Guarantor shall send the Collateral Agent or each Buyer an official receipt (or, if an official receipt is not available, such other documentation as shall be satisfactory to the Collateral Agent, as the case may be) showing payment. In addition, each Guarantor agrees to pay any present or future stamp or documentary taxes or any other excise or property taxes, charges or similar levies that arise from any payment made hereunder or from the execution, delivery, registration or enforcement of, or otherwise with respect to, this Guaranty or any other Transaction Document (collectively, “**Other Taxes**”).

10

(b) Each Guarantor hereby indemnifies and agrees to hold each Indemnified Party harmless from and against Taxes or Other Taxes (including, without limitation, any Taxes or Other Taxes imposed by any jurisdiction on amounts payable under this Section 12) paid by any Indemnified Party as a result of any payment made hereunder or from the execution, delivery, registration or enforcement of, or otherwise with respect to, this Guaranty or any other Transaction Document, and any liability (including penalties, interest and expenses for nonpayment, late payment or otherwise) arising therefrom or with respect thereto, whether or not such Taxes or Other Taxes were correctly or legally asserted. This indemnification shall be paid within thirty (30) days from the date on which the Collateral Agent or such Buyer makes written demand therefor, which demand shall identify the nature and amount of such Taxes or Other Taxes.

(c) If any Guarantor fails to perform any of its obligations under this Section 12, such Guarantor shall indemnify the Collateral Agent and each Buyer for any taxes, interest or penalties that may become payable as a result of any such failure. The obligations of the Guarantors under this Section 12 shall survive the termination of this Guaranty and the payment of the Obligations and all other amounts payable hereunder.

SECTION 13. Indemnification.

(a) Without limitation of any other obligations of any Guarantor or remedies of the Collateral Agent or the Buyers under this Guaranty or applicable law, except to the extent resulting from any Indemnified Party’s gross negligence or willful misconduct, as determined by a final judgment of a court of competent jurisdiction no longer subject to appeal, each Guarantor shall, to the fullest extent permitted by law, indemnify, defend and save and hold harmless the Collateral Agent and each Buyer and each of their affiliates and their respective officers, directors, employees, agents and advisors (each, an “**Indemnified Party**”) from and against, and shall pay on demand, any and all claims, damages, losses, liabilities and expenses (including, without limitation, reasonable fees and expenses of counsel) that may be incurred by or asserted or awarded against any Indemnified Party in connection with or as a result of any failure of any Guaranteed Obligations to be the legal, valid and binding obligations of any Transaction Party enforceable against such Transaction Party in accordance with their terms.

(b) Each Guarantor hereby also agrees that none of the Indemnified Parties shall have any liability (whether direct or indirect, in contract, tort or otherwise) or any fiduciary duty or obligation to any of the Guarantors or any of their respective affiliates or any of their respective officers, directors, employees, agents and advisors, and each Guarantor hereby agrees not to assert any claim against any Indemnified Party on any theory of liability, for special, indirect, consequential, incidental or punitive damages arising out of or otherwise relating to the facilities, the actual or proposed use of the proceeds of the advances, the Transaction Documents or any of the transactions contemplated by the Transaction Documents.

SECTION 14. Miscellaneous.

(a) Each Guarantor will make each payment hereunder in lawful money of the United States of America and in immediately available funds to the Collateral Agent or each Buyer, at such address specified by the Collateral Agent or such Buyer from time to time by notice to the Guarantors.

11

(b) No amendment or waiver of any provision of this Guaranty and no consent to any departure by any Guarantor therefrom shall in any event be effective unless the same shall be in writing and signed by each Guarantor, the Collateral Agent and each Buyer, and then such waiver or consent shall be effective only in the specific instance and for the specific purpose for which given.

(c) No failure on the part of the Collateral Agent or any Buyer to exercise, and no delay in exercising, any right or remedy hereunder or under any other Transaction Document shall operate as a waiver thereof, nor shall any single or partial exercise of any right hereunder or under any Transaction Document preclude any other or further exercise thereof or the exercise of any other right or remedy. The rights and remedies of the Collateral Agent and the Buyers provided herein and in the other Transaction Documents are cumulative and are in addition to, and not exclusive of, any rights or remedies provided by law. The rights and remedies of the Collateral Agent and the Buyers under any Transaction Document against any party thereto are not conditional or contingent on any attempt by the Collateral Agent or any Buyer to exercise any of their respective rights or remedies under any other Transaction Document against such party or against any other Person.

(d) Any provision of this Guaranty that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining portions hereof or affecting the validity or enforceability of such provision in any other jurisdiction.

(e) This Guaranty is a continuing guaranty and shall (i) remain in full force and effect until Payment in Full of the Guaranteed Obligations (other than inchoate indemnity obligations) and shall not terminate for any reason prior to the respective Maturity Date of each Note (other than Payment in Full of the Guaranteed Obligations) and (ii) be binding upon each Guarantor and its respective successors and assigns. This Guaranty shall inure, together with all rights and remedies of the Collateral Agent hereunder, to the benefit of and be enforceable by the Collateral Agent, the Buyers, and their respective successors, and permitted pledgees, transferees and assigns. Without limiting the generality of the foregoing sentence, the Collateral Agent or any Buyer may pledge, assign or otherwise transfer all or any portion of its rights and obligations under and subject to the applicable terms of the Securities Purchase Agreement or any other Transaction Document to any other Person in accordance with the terms thereof, and such other Person shall thereupon become vested with all the benefits in respect thereof granted to the Collateral Agent or such Buyer (as applicable) herein or otherwise, in each case as provided in the Securities Purchase Agreement or such Transaction Document. None of the rights or obligations of any Guarantor hereunder may be assigned or otherwise transferred without the prior written consent of each Buyer.

(f) This Guaranty and the other Transaction Documents reflect the entire understanding of the transaction contemplated hereby and shall not be contradicted or qualified by any other agreement, oral or written, entered into before the date hereof.

12

(g) Section headings herein are included for convenience of reference only and shall not constitute a part of this Guaranty for any other purpose.

SECTION 15. Currency Indemnity.

If, for the purpose of obtaining or enforcing judgment against Guarantor in any court in any jurisdiction, it becomes necessary to convert into any other currency (such other currency being hereinafter in this Section 15 referred to as the “**Judgment Currency**”) an amount due under this Guaranty in any currency (the “**Obligation Currency**”) other than the Judgment Currency, the conversion shall be made at the rate of exchange prevailing on the Business Day immediately preceding (a) the

date of actual payment of the amount due, in the case of any proceeding in the courts of the jurisdiction that will give effect to such conversion being made on such date, or (b) the date on which the judgment is given, in the case of any proceeding in the courts of any other jurisdiction (the applicable date as of which such conversion is made pursuant to this Section 15 being hereinafter in this Section 15 referred to as the “**Judgment Conversion Date**”).

If, in the case of any proceeding in the court of any jurisdiction referred to in the preceding paragraph, there is a change in the rate of exchange prevailing between the Judgment Conversion Date and the date of actual receipt of the amount due in immediately available funds, the Guarantors shall pay such additional amount (if any, but in any event not a lesser amount) as may be necessary to ensure that the amount actually received in the Judgment Currency, when converted at the rate of exchange prevailing on the date of payment, will produce the amount of the Obligation Currency which could have been purchased with the amount of the Judgment Currency stipulated in the judgment or judicial order at the rate of exchange prevailing on the Judgment Conversion Date. Any amount due from the Guarantors under this Section 15 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 Guaranty.

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IN WITNESS WHEREOF, each Guarantor has caused this Guaranty to be executed by its respective duly authorized officer, as of the date first above written.

GUARANTORS:

LUCIDDX LABS INC.

By: _____
Name: _____
Title: _____

CAPNOSTICS, LLC

By: _____
Name: _____
Title: _____

[Signatures continue on following page]

ACCEPTED BY:

**ALTO OPPORTUNITY MASTER FUND, SPC - SEGREGATED MASTER
PORTFOLIO B,**
as Collateral Agent

By: _____
Name: _____
Title: _____

Lucid Diagnostics Provides Business Update and Fourth Quarter and Full Year 2022 Financial Results

4Q22 and projected 1Q23 EsoGuard[®] test volume increases 8 and 36 percent sequentially and 288 and 300 percent annually.

Company signs in-network agreement with largest secondary PPO, MultiPlan, expanding patient access to EsoGuard.

Company secures financing of \$24.6 million through separate offerings of preferred stock and debt, convertible after September 2023.

Conference call and webcast to be held tomorrow, March 14th at 8:30 AM EST

NEW YORK, March 13, 2023 - Lucid Diagnostics Inc. (Nasdaq: LUCD) (“Lucid” or the “Company”) a commercial-stage, cancer prevention medical diagnostics company, and majority-owned subsidiary of PAVmed Inc. (Nasdaq: PAVM, PAVMZ) (“PAVmed”), today provided a business update for the Company and presented financial results for the year ended December 31, 2022.

Conference Call and Webcast

The webcast will take place on March 14, 2023, at 8:30 AM and be accessible in the investor relations section of the Company’s website at luciddx.com. Alternatively, to access the conference call by telephone, U.S.-based callers should dial 877-550-1858 and international listeners should dial 1-848-488-9160. All listeners should provide the operator with the conference call name “Lucid Diagnostics Business Update Conference Call” to join.

Business Update Highlights

“We continue to make significant strides in our efforts to expand EsoGuard testing volume and secure in-network commercial payor access for EsoGuard,” said Lishan Aklog, M.D., Lucid’s Chairman and Chief Executive Officer. “Testing volume growth has been particularly strong this quarter and we expect that growth to continue with ongoing expansion of our satellite Lucid Test Center (sLTC) program and high-volume testing events. We also are making steady progress with commercial payor engagements and expect that effort to accelerate as we continue to generate claims histories with major plans and collect data demonstrating clinical utility of EsoGuard testing.”

“Our in-network agreement to participate in Multiplan’s networks, comprising approximately 60 million consumers, represents a significant milestone in our efforts to broaden patient access to EsoGuard testing. Our recent financings, along with our ongoing cash preservation efforts, have strengthened our balance sheet and extended our cash runway well into 2024, through key value inflection milestones. We will continue to focus on commercial execution and market access expansion to drive long-term shareholder value,” Dr. Aklog added.

Highlights from the 4Q22 and recent weeks include:

- Lucid’s CLIA-certified clinical laboratory performed 1,174 commercial EsoGuard[®] Esophageal DNA Tests in the 4Q22, which represents an 8 percent increase sequentially from the 3Q22 and a 288 percent annual increase from the 4Q21. The Company projects approximately 1600 commercial EsoGuard tests in 1Q23, which represents a 36 percent increase sequentially from 4Q22 and a 300 percent annual increase from 1Q22.
- Satellite Lucid Test Center (sLTC) activity, whereby Lucid clinicians collect samples at physician offices, continues to increase rapidly, representing 31 percent of samples collected in 4Q22, up from 22 percent in 3Q22.
- Lucid signed an in-network agreement with MultiPlan[®], the largest secondary Preferred Provider Organization (PPO), expanding EsoGuard’s access to Multiplan’s estimated 60 million consumers through its relationship with more than 700 healthcare payors and 1.2 million healthcare providers.
- Commercial payor engagement is accelerating, with a total of 13 in-network EsoGuard contracts, averaging more than \$2000 per test and all in-network PPO contracts priced at or above the Medicare payment rate of \$1938. Key drivers of future in-network commercial payor contracting—generating claims history with individual payors and collecting retrospective and prospective clinical utility data—are also progressing well.
- Lucid launched an aggressive Direct Contracting Strategic Initiative (DCSI) to engage directly with large Administrative Services Only (ASO) self-insured employers, unions and other entities, seeking to replicate the successes of other cancer screening diagnostic companies that have deployed similar strategies.
- Lucid launched its #CheckYourFoodTube Precancer Detection Event (#CYFT Event) program, bringing EsoGuard testing directly to at-risk patients at high-volume testing day events. The first #CYFT Event, held in partnership with the San Antonio Fire Department, tested 391 firefighters over two weekends. The Company set new performance records during this inaugural event, reflecting enhanced operating efficiencies, including approximately:
 - 100 individuals undergoing esophageal cell collection procedures per day;
 - 50 cell collection procedures performed per nurse practitioner per day; and
 - 200 EsoGuard tests processed by the laboratory in a single day.

The near-term pipeline for future #CYFT Events is robust.

- Lucid received Food and Drug Administration (FDA) 510(k) clearance to market its EsoCheck[®] Cell Collection Device without sterilization, which will significantly reduce the cost of goods, enhance gross margins, mitigate supply chain issues, and address potential environmental concerns with current sterilization techniques.
- Lucid secured financing of \$24.6 million through separate offerings of preferred stock and debt. Recently, the Company received \$13.6 million from the sale of shares of non-voting Series A Convertible Preferred Stock, which may not be converted until September 2023 and not until March 2025 without surrendering the right to an annual dividend. Also, on March 13, 2023 the Company entered into a securities purchase agreement for Series A Convertible Notes with an aggregated principal amount of \$11.1 million, which may not be converted until September 2023. Further details of these transactions are available on Form 8-K notices filed with the Securities and Exchange Commission. The proceeds of these offerings will extend the Company’s cash runway well into 2024, through near-term commercial milestones, including expanded market access.

- Lucid management confirms that the entirety of its cash and cash-equivalent instruments are held at JP Morgan, and that it does not hold any cash at Silicon Valley Bank (SVB) or any other financial institution whose deposits have been reported to be at risk.

Financial Results

- For 4Q22, EsoGuard related revenues were \$0.1 million while for the year ended December 31, 2021, revenues were \$0.3 million. Fourth-quarter and full-year 2022 operating expenses were approximately \$24.6 million and \$91.3 million, respectively, which include stock-based compensation expenses of \$4.9 million and \$19.5 million, respectively. GAAP net loss attributable to shareholders for the fourth quarter and full-year 2022 were approximately \$14.9 million and \$56.2 million, or \$(0.47) and \$(1.55) per common share.
- As shown below and for the purpose of illustrating the effect of stock-based compensation and other non-cash income and expenses on the Company's financial results, the Company's non-GAAP adjusted loss for the fourth quarter and year ended December 31, 2022, were approximately \$10.6 million and \$39.2 million or \$(0.33) and \$(1.08) per common share.
- Lucid had cash and cash equivalents of \$22.5 million as of December 31, 2022, compared with \$53.7 million as of December 31, 2021. Subsequent to December 31, 2022, the company completed an initial closing for the issuance of preferred securities resulting in net proceeds of approximately \$13.6 million and entered into a Securities Purchase Agreement to issues Secured Convertible Debt in the principal amount of \$11.1 million.

Lucid Non-GAAP Measures

- To supplement our unaudited financial results presented in accordance with U.S. generally accepted accounting principles (GAAP), management provides certain non-GAAP financial measures of the Company's financial results. These non-GAAP financial measures include net loss before interest, taxes, depreciation, and amortization (EBITDA), and non-GAAP adjusted loss, which further adjusts EBITDA for stock-based compensation expense and other non-cash income and expenses, if any. The foregoing non-GAAP financial measures of EBITDA and non-GAAP adjusted loss are not recognized terms under U.S. GAAP.
- Non-GAAP financial measures are presented with the intent of providing greater transparency to the information used by us in our financial performance analysis and operational decision-making. We believe these non-GAAP financial measures provide meaningful information to assist investors, shareholders, and other readers of our unaudited financial statements in making comparisons to our historical financial results and analyzing the underlying performance of our results of operations. These non-GAAP financial measures are not intended to be, and should not be, a substitute for, considered superior to, considered separately from, or as an alternative to, the most directly comparable GAAP financial measures.
- Non-GAAP financial measures are provided to enhance readers' overall understanding of our current financial results and to provide further information for comparative purposes. Management believes the non-GAAP financial measures provide useful information to management and investors by isolating certain expenses, gains, and losses that may not be indicative of our core operating results and business outlook. Specifically, the non-GAAP financial measures include non-GAAP adjusted loss, and its presentation is intended to help the reader understand the effect of the loss on the issuance or modification of convertible securities, the periodic change in fair value of convertible securities, the loss on debt extinguishment, and the corresponding accounting for non-cash charges on financial performance. In addition, management believes non-GAAP financial measures enhance the comparability of results against prior periods.

- A reconciliation to the most directly comparable GAAP measure of all non-GAAP financial measures included in this press release for the three months and nine months ended December 31, 2022, and 2021 are as follows:

	For the three months ended December 31,		For the years ended December 31,	
	2022	2021	2022	2021
Revenue	\$ 112	\$ 300	\$ 377	\$ 500
Operating expenses	15,040	11,541	56,548	27,919
Other (Income) expense	-	65	-	659
Net loss	(14,928)	(11,306)	(56,171)	(28,078)
Net income (loss) per common share, basic and diluted	\$ (0.47)	\$ (0.32)	\$ (1.55)	\$ (1.51)
Adjustments:				
Depreciation and amortization expense ¹	615	1	1,936	4
Interest expense, net	-	512	-	659
EBITDA	(14,313)	(10,793)	(54,235)	(27,415)
Other non-cash or financing related expenses:				
Stock-based compensation expense ²	3,740	3,443	14,991	9,599
Non-GAAP adjusted (loss)	\$ (10,573)	\$ (7,350)	\$ (39,244)	\$ (17,816)
Basic and Diluted shares outstanding	31,923	34,918	36,172	18,604
Non-GAAP adjusted (loss) income per share	\$ (0.33)	\$ (0.21)	\$ (1.08)	\$ (0.96)

¹ Included in general and administrative expenses in the financial statements.

² Included in other income and expenses.

Non-GAAP Operating Expenses	For the three months ended December 31,		For the years ended December 31,	
	2022	2021	2022	2021
Cost of revenue	1,618	441	3,614	585
Stock-based compensation expense	(7)	-	(16)	-

Net cost of revenue	\$ 1,611	\$ 441	\$ 3,598	\$ 585
Amortization of acquired intangible assets	505	-	1,649	-
Sales and marketing expense total	5,013	2,633	16,134	5,260
Stock-based compensation expense	(392)	(210)	(1,622)	(210)
Net sales and marketing expense	\$ 4,621	\$ 2,423	\$ 14,512	\$ 5,050
General and administrative expense total	5,462	4,985	23,685	12,778
Depreciation and amortization expense	(110)	(1)	(287)	(4)
Stock-based compensation expense	(3,225)	(3,123)	(12,953)	(9,111)
Net general and administrative expense	\$ 2,127	\$ 1,861	\$ 10,445	\$ 3,663
Research and development expense total	2,442	3,482	11,466	9,296
Stock-based compensation expense	(116)	(110)	(400)	(278)
Net research and development expense	\$ 2,326	\$ 3,372	\$ 11,066	\$ 9,018
Total operating expenses	15,040	11,541	56,548	27,919
Depreciation and amortization	(615)	(1)	(1,936)	(4)
Stock-based compensation expense	(3,740)	(3,443)	(14,991)	(9,599)
Net Non-GAAP operating expenses	\$ 10,685	\$ 8,097	\$ 39,621	\$ 18,316

About EsoGuard and EsoCheck

Millions of patients with GERD are at risk of developing esophageal precancer and a highly lethal form of esophageal cancer (“EAC”). Over 80 percent of EAC patients die within five years of diagnosis, making it the second most lethal cancer in the U.S. The mortality rate is high even in those diagnosed with early stage EAC. The U.S. incidence of EAC has increased 500 percent over the past four decades, while the incidences of other common cancers have declined or remained flat. In nearly all cases, EAC silently progresses until it manifests itself with new symptoms of advanced disease. All EAC is believed to arise from esophageal precancer, which occurs in approximately 5 percent to 15 percent of at-risk GERD patients. Early esophageal precancer can be monitored for progression to late esophageal precancer which can be cured with endoscopic esophageal ablation, reliably halting progression to cancer.

Esophageal precancer screening is already recommended by clinical practice guidelines in millions of GERD patients with multiple risk factors, including age over 50 years, male gender, White race, obesity, smoking history, and a family history of esophageal precancer or cancer. Unfortunately, fewer than 10 percent of those recommended for screening undergo traditional invasive endoscopic screening. The profound tragedy of an EAC diagnosis is that likely death could have been prevented if the at-risk GERD patient had been screened and then undergone surveillance and curative treatment.

The only missing element for a viable esophageal cancer prevention program has been the lack of a widespread screening tool that can detect esophageal precancer. Lucid believes EsoGuard, performed on samples collected with EsoCheck, is the missing element – the first and only commercially available test capable of serving as a widespread screening tool to prevent esophageal cancer deaths through the early detection of esophageal precancer in at-risk GERD patients. An updated American College of Gastroenterology clinical practice [guideline](#) and an American Gastroenterological Association clinical practice [update](#) both endorse non-endoscopic biomarker tests as an acceptable alternative to costly and invasive endoscopy for esophageal precancer screening. EsoGuard is the only such test currently available in the United States.

EsoGuard is a bisulfite-converted NGS DNA assay performed on surface esophageal cells collected with EsoCheck, which quantifies methylation at 31 sites on two genes, Vimentin (VIM) and Cyclin A1 (CCNA1). The assay was evaluated in a 408-patient, multicenter, case-control study published in *Science Translational Medicine* and showed greater than 90 percent sensitivity and specificity at detecting esophageal precancer and cancer.

EsoCheck is an FDA 510(k) and CE Mark cleared noninvasive swallowable balloon capsule catheter device capable of sampling surface esophageal cells in a less than five-minute office procedure. It consists of a vitamin pill-sized rigid plastic capsule tethered to a thin silicone catheter from which a soft silicone balloon with textured ridges emerges to gently swab surface esophageal cells. When vacuum suction is applied, the balloon and sampled cells are pulled into the capsule, protecting them from contamination and dilution by cells outside of the targeted region during device withdrawal. Lucid believes this proprietary Collect+Protect™ technology makes EsoCheck the only noninvasive esophageal cell collection device capable of such anatomically targeted and protected sampling. The sample is sent by overnight express mail to Lucid’s CLIA-certified, CAP-accredited laboratory, LucidDx Labs, for EsoGuard testing.

About Lucid Diagnostics

Lucid Diagnostics Inc. is a commercial-stage, cancer prevention medical diagnostics company, and subsidiary of PAVmed Inc. Lucid is focused on the millions of patients with gastroesophageal reflux disease (GERD), also known as chronic heartburn, who are at risk of developing esophageal precancer and cancer. Lucid’s [EsoGuard® Esophageal DNA Test](#), performed on samples collected in a brief, noninvasive office procedure with its EsoCheck® Esophageal Cell Collection Device, is the first and only commercially available diagnostic test capable of serving as a widespread screening tool to prevent cancer and cancer deaths through early detection of esophageal precancer in at-risk GERD patients.

For more information, please visit luciddx.com and for more information about its parent company PAVmed, please visit pavmed.com.

Forward-Looking Statements

This press release includes forward-looking statements that involve risk and uncertainties. Forward-looking statements are any statements that are not historical facts. Such forward-looking statements, which are based upon the current beliefs and expectations of Lucid Diagnostics’ management, are subject to risks and uncertainties, which could cause actual results to differ from the forward-looking statements. Risks and uncertainties that may cause such differences include, among other things, volatility in the price of Lucid Diagnostics’ common stock; general economic and market conditions; the uncertainties inherent in research and development, including the cost and time required to advance Lucid Diagnostics’ products to regulatory submission; whether regulatory authorities will be satisfied with the design of and results from Lucid Diagnostics’ clinical and preclinical studies; whether and when Lucid Diagnostics’ products are cleared by regulatory authorities; market acceptance of Lucid Diagnostics’ products once cleared and commercialized; Lucid Diagnostics’ ability to raise additional funding as needed; and other competitive developments. In addition, Lucid Diagnostics continues to monitor the COVID-19 pandemic and the pandemic’s impact on Lucid Diagnostics’ businesses. These factors are difficult or impossible to predict accurately and many of them are beyond Lucid Diagnostics’ control. In addition, new risks and uncertainties may arise from time to time and are difficult to predict. For a further list and description of these and other important risks and uncertainties that may affect Lucid Diagnostics’ future operations, see Part I, Item 1A, “Risk Factors,” in Lucid Diagnostics’ most recent Annual Report on

Form 10-K filed with the Securities and Exchange Commission, as the same may be updated in Part II, Item 1A, "Risk Factors" in any Quarterly Report on Form 10-Q filed by Lucid Diagnostics after its most recent Annual Report. Lucid Diagnostics disclaims any intention or obligation to publicly update or revise any forward-looking statement to reflect any change in its expectations or in events, conditions, or circumstances on which those expectations may be based, or that may affect the likelihood that actual results will differ from those contained in the forward-looking statements.

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