

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

**FORM 8-K**

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

**Date of Report (Date of earliest event reported): August 19, 2021**

**Progenity, Inc.**

(Exact name of Registrant as Specified in Its Charter)

**Delaware**  
(State or Other Jurisdiction  
of Incorporation)

**001-39334**  
(Commission  
File Number)

**27-3950390**  
(IRS Employer  
Identification No.)

**4330 La Jolla Village Drive, Suite 200**  
**San Diego, California**  
(Address of Principal Executive Offices)

**92122**  
(Zip Code)

**Registrant's Telephone Number, Including Area Code: (855) 293-2639**

**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:

- 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	PROG	The NASDAQ Global Market

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 August 19, 2021, Progenity, Inc. (the “Company”) entered into an underwriting agreement (the “Underwriting Agreement”) with H.C. Wainwright & Co., LLC (the “Underwriter”) as underwriter in connection with a public offering (the “Public Offering”) of an aggregate of (i) 40,000,000 shares of common stock, par value \$0.001 (the “Shares”) and (ii) common stock warrants to purchase 40,000,000 shares of common stock (the “Warrants”). Each Share is being sold together with one Warrant to purchase one share of common stock at an effective combined public offering price of \$1.00 per share of the common stock and the accompanying warrant, less underwriting discounts and commissions. The Warrants have an exercise price of \$1.00 per share, are exercisable immediately, and will expire five years following the date of issuance. In addition, the Company granted the Underwriter a 30-day option to purchase up to 6,000,000 Shares and/or Warrants at the public offering price, less the underwriting discounts and commissions.

The Company expects to receive gross proceeds from the Public Offering of \$40 million before deducting underwriting discounts and commissions and other estimated expenses. The closing of the Public Offering is expected to take place on August 24, 2021, subject to customary closing conditions.

The Shares and the Warrants are being offered and sold to the public pursuant to the Company’s shelf registration statement on Form S-3 (File No. 333-258301) initially filed with the Securities and Exchange Commission (the “Commission”) on July 30, 2021 and declared effective on August 6, 2021 (the “Registration Statement”). A prospectus supplement relating to the Public Offering was filed with the Commission on August 19, 2021 (the “Prospectus Supplement”).

Pursuant to the Underwriting Agreement, the Company has agreed to pay the Underwriter an underwriting discount equal to 6% of the aggregate gross proceeds raised in the Public Offering. The Company has also agreed to reimburse the Underwriter for certain expenses incurred in connection with the Public Offering.

The Underwriting Agreement contains customary representations, warranties and agreements by the Company and customary conditions to closing. In addition, the Company and each of its executive officers and directors have agreed, subject to certain exceptions set forth in the lock-up agreements, not to sell, offer, agree to sell, contract to sell, hypothecate, pledge, grant any option to purchase, make any short sale of, or otherwise dispose of, directly or indirectly, any shares of the Company’s common stock, or any securities convertible into or exercisable or exchangeable for shares of the Company’s common stock, for 90 days from the date of the Prospectus Supplement relating to this offering without the prior written consent of the Underwriter.

Pursuant to the Underwriting Agreement, the Company agreed to indemnify the Underwriter against certain liabilities, including liabilities under the Securities Act of 1933, as amended (the “Securities Act”), and liabilities arising from breaches of representations and warranties contained in the Underwriting Agreement.

The foregoing descriptions of the Underwriting Agreement and the Warrants are qualified in their entirety by reference to the full text of the Underwriting Agreement and the Form of the Warrant which are attached to this Current Report on Form 8-K as Exhibits 1.1 and 4.1, respectively, and incorporated herein by reference in their entirety.

The Company notes that the representations, warranties and covenants made by the Company in any agreement that is filed as an exhibit to any document that is incorporated by reference in the Prospectus Supplement or the accompanying base prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to or in favor of any stockholder or potential stockholder of the Company other than the parties thereto. In addition, the assertions embodied in any representations, warranties and covenants contained in such agreements may be subject to qualifications with respect to knowledge and materiality different from those applicable to security holders generally. Moreover, such representations, warranties or covenants were accurate only as of the date when made, except where expressly stated otherwise. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of the Company’s affairs at any time.

This report contains forward-looking statements. Forward-looking statements include, but are not limited to, statements that express the Company’s intentions, beliefs, expectations, strategies, predictions or any other statements related to the Company’s future activities, or future events or conditions, including those relating to the closing of the offering and the possible exercise of the Underwriter’s over-allotment option. These statements are based on current expectations, estimates and projections about the Company’s business based, in part, on assumptions made by management. These statements are not guarantees of future performance and involve risks, uncertainties and assumptions that are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or forecasted in the forward-looking statements due to numerous factors, including those risks discussed in the Company’s Prospectus Supplement, Annual Report on Form 10-K and in other documents that the Company files from time to time with the Commission. Any forward-looking statements speak only as of the date on which they are made, and the Company does not undertake any obligation to update any forward-looking statement to reflect events or circumstances after the date of this report, except as required by law.

The Prospectus Supplement relating to the Public Offering was filed with the Commission and is available on the Commission's web site at <http://www.sec.gov>. Copies of the Prospectus Supplement may also be obtained from the web site maintained by the Underwriter, and the Underwriter may distribute the Prospectus Supplement electronically.

An opinion of Gibson, Dunn & Crutcher LLP regarding the validity of the Shares and the Warrants is filed as Exhibit 5.1.

This Current Report on Form 8-K does not constitute an offer to sell or the solicitation of an offer to buy, and these securities cannot be sold in any state or jurisdiction in which this offer, solicitation, or sale would be unlawful prior to registration or qualification under the securities laws of any state or jurisdiction. Any offer will be made only by means of a prospectus, including a prospectus supplement, forming a part of the effective registration statement.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits.

- 1.1 [Underwriting Agreement, dated as of August 19, 2021](#)
- 4.1 [Form of Warrant](#)
- 5.1 [Opinion of Gibson, Dunn & Crutcher LLP](#)
- 104 Cover Page Interactive Data File (embedded with the Inline XBRL document)

**SIGNATURES**

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 thereunto duly authorized.

Progenity, Inc.

Date: August 23, 2021

By: /s/ Harry Stylli, Ph.D.

Harry Stylli, Ph.D.

Chairman and Chief Executive Officer

**40,000,000 Shares of Common Stock  
and  
Warrants to Purchase 40,000,000 Shares of Common Stock**

**Progenity, Inc.**

**UNDERWRITING AGREEMENT**

August 19, 2021

H.C. WAINWRIGHT & CO., LLC  
430 Park Avenue, 3rd Floor  
New York, New York 10022

Ladies and Gentlemen:

Progenity, Inc., a Delaware corporation (the “**Company**”), proposes to sell to H.C. Wainwright & Co., LLC (the “**Underwriter**”) an aggregate of (i) 40,000,000 shares (the “**Firm Shares**”) of Common Stock, \$0.001 par value per share (the “**Common Stock**”), of the Company and (ii) warrants to purchase up to 40,000,000 shares of Common Stock in the form set forth on Exhibit A (the “**Firm Warrants**”). The Firm Shares consist of 40,000,000 authorized but unissued shares of Common Stock to be issued and sold by the Company. The Company has also granted to the Underwriter an option to purchase up to (i) 6,000,000 additional shares of Common Stock (the “**Option Shares**”) and/or (ii) warrants to purchase up to 6,000,000 shares of Common Stock in the form set forth on Exhibit A (the “**Option Warrants**”) and together with the Firm Warrants, the “**Warrants**”) on the terms and for the purposes set forth in Section 3 hereof. The Firm Shares, the Firm Warrants and any Option Shares and Option Warrants purchased pursuant to this Underwriting Agreement are herein collectively called the “**Securities.**” Each Firm Share is being sold together with a Warrant to purchase one (1) share of Common Stock at an exercise price of \$1.00 per whole share of Common Stock. The shares of Common Stock underlying the Warrants are herein called the “**Warrant Shares**”).

The Company hereby confirms its agreement with respect to the sale of the Securities to the Underwriter.

1. **Registration Statement and Prospectus.** A registration statement on Form S-3 (File No. 333-258301) with respect to the Securities and the Warrant Shares, including a preliminary form of prospectus, has been prepared by the Company in conformity with the requirements of the Securities Act of 1933, as amended (the “**Act**”), and the rules and regulations (the “**Rules and Regulations**”) of the Securities and Exchange Commission (the “**Commission**”) thereunder and has been filed with the Commission. Such registration statement has been declared effective by the Commission. Such registration statement, including the amendments, exhibits and schedules thereto, the documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the Act and the documents and information otherwise deemed to be a part thereof or included therein by Rule 430B under the Act (the “**Rule 430B Information**”) or otherwise pursuant to the Rules and Regulations, as of the time the Registration Statement became effective, including the Rule 430B

Information, is referred to herein as the “**Registration Statement.**” If the Company has elected to rely upon Rule 462(b) of the Rules and Regulations to increase the size of the offering registered under the Act, the Company will prepare and file with the Commission a registration statement with respect to such increase pursuant to Rule 462(b) of the Rules and Regulations (such registration statement, including the contents of the Registration Statement incorporated by reference therein is the “**Rule 462(b) Registration Statement**”). References herein to the “**Registration Statement**” will be deemed to include any such Rule 462(b) Registration Statement at and after the time of filing of the Rule 462(b) Registration Statement.

The prospectus in the form in which it has most recently been filed with the Commission on or prior to the date of this Agreement is herein called the “**Base Prospectus.**” Each preliminary prospectus supplement to the Base Prospectus (including the Base Prospectus as so supplemented), that describes the Securities and the Warrant Shares and the offering thereof, that omitted the Rule 430B Information and that was used prior to the filing of the final prospectus supplement referred to in the following sentence is herein called a “**Preliminary Prospectus.**” Promptly after execution and delivery of this Agreement, the Company will prepare and file with the Commission a final prospectus supplement to the Base Prospectus relating to the Securities and the Warrant Shares and the offering thereof in accordance with the provisions of Rule 430B and Rule 424(b) of the Rules and Regulations. Such final supplemental form of prospectus (including the Base Prospectus as so supplemented), in the form filed with the Commission pursuant to Rule 424(b) is herein called the “**Prospectus.**” Any reference herein to the Base Prospectus, any Preliminary Prospectus or the Prospectus shall be deemed to include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the Act as of the date of such Prospectus.

All references in this Agreement to the Registration Statement, the Rule 462(b) Registration Statement, any Preliminary Prospectus, the Prospectus or any amendment or supplement to any of the foregoing, is deemed to include the copy filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval system or any successor system thereto. All references in this Agreement to financial statements and schedules and other information which is “described,” “contained,” “included” or “stated” in the Registration Statement, the Base Prospectus, any Preliminary Prospectus or the Prospectus (or other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information which is incorporated by reference in or otherwise deemed by the Rules and Regulations to be a part of or included in the Registration Statement, the Base Prospectus, any Preliminary Prospectus or the Prospectus, as the case may be; and all references in this Agreement to amendments or supplements to the Registration Statement, the Base Prospectus, any Preliminary Prospectus or the Prospectus shall be deemed to mean and include the subsequent filing of any document under the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), and which is deemed to be incorporated therein by reference therein or otherwise deemed by the Rules and Regulations to be a part thereof.

## 2. Representations and Warranties of the Company.

(a) Representations and Warranties of the Company. The Company represents and warrants to, and agrees with, the Underwriter as follows:

(i) Registration Statement and Prospectuses. The Registration Statement and any post-effective amendment thereto has become effective under the Act. No stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued by the Commission, and no proceeding for that purpose has been initiated or, to the Company's knowledge, threatened by the Commission. No order preventing or suspending the use of any Preliminary Prospectus or the Prospectus (or any supplement thereto) has been issued by the Commission and no proceeding for that purpose has been initiated or, to the Company's knowledge, threatened by the Commission. As of the time each part of the Registration Statement (or any post-effective amendment thereto) became or becomes effective, such part conformed or will conform in all material respects to the requirements of the Act and the Rules and Regulations. Upon the filing or first use within the meaning of the Rules and Regulations, each Preliminary Prospectus and the Prospectus (or any supplement to either) conformed or will conform in all material respects to the requirements of the Act and the Rules and Regulations.

(ii) Accurate Disclosure. Each Preliminary Prospectus, at the time of filing thereof or the time of first use within the meaning of the Rules and Regulations, did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. Neither the Registration Statement nor any amendment thereto, at the effective time of each part thereof, at the First Closing Date (as defined below) or at the Second Closing Date (as defined below), contained, contains or will contain an untrue statement of a material fact or omitted, omits or will omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. As of the Time of Sale (as defined below), neither (A) the Time of Sale Disclosure Package (as defined below) nor (B) any issuer free writing prospectus (as defined below), when considered together with the Time of Sale Disclosure Package, included an untrue statement of a material fact or omitted to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. Neither the Prospectus nor any supplement thereto at the time of any filing with the Commission pursuant to Rule 424(b) of the Rules and Regulations, at the First Closing Date or at the Second Closing Date, as applicable, included, includes or will include an untrue statement of a material fact or omitted, omits or will omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The representations and warranties in this Section 2(a)(ii) shall not apply to statements in or omissions from any Preliminary Prospectus, the Registration Statement (or any amendment thereto), the Time of Sale Disclosure Package or the Prospectus (or any supplement thereto) made in reliance upon, and in conformity with, written information furnished to the Company by you specifically for use in the preparation of such document, it being understood and agreed that the only such information furnished by the Underwriter consists of the information described as such in Section 6(e).

Each reference to an “**issuer free writing prospectus**” herein means an issuer free writing prospectus as defined in Rule 433 of the Rules and Regulations.

“**Time of Sale Disclosure Package**” means the Preliminary Prospectus dated August 19, 2021 and accepted by the Commission at 4:07 p.m. (Eastern time) on August 19, 2021 and the information on Schedule V, all considered together.

Each reference to a “**free writing prospectus**” herein means a free writing prospectus as defined in Rule 405 of the Rules and Regulations.

“**Time of Sale**” means 8:40 p.m. (Eastern time) on the date of this Agreement.

(iii) Issuer Free Writing Prospectuses.

(A) Each issuer free writing prospectus, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Securities and the Warrant Shares or until any earlier date that the Company notified or notifies the Underwriter as described in Section 4(a)(iii)(B), did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, any Preliminary Prospectus or the Prospectus. The foregoing sentence does not apply to statements in or omissions from any issuer free writing prospectus based upon and in conformity with written information furnished to the Company by you specifically for use therein; it being understood and agreed that the only such information furnished by the Underwriter consists of the information described as such in Section 6(e).

(B) At the time of filing the Registration Statement and any post-effective amendment thereto, and at the date hereof, the Company was not and is not an “ineligible issuer,” as defined in Rule 405 of the Rules and Regulations, without taking account of any determination by the Commission pursuant to Rule 405 of the Rules and Regulations that it is not necessary that the Company be considered an ineligible issuer.

(C) Each issuer free writing prospectus satisfied, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Securities and the Warrant Shares, all other conditions to use thereof as set forth in Rules 164 and 433 under the Act.

(iv) Emerging Growth Company. From the time of initial filing of the Registration Statement to the Commission (or, if earlier, the first date on which the Company engaged directly or through any person authorized to act on its behalf in any Testing-the-Waters Communication (as defined below)) through the date hereof, the Company has been and is an “emerging growth company,” as defined in Section 2(a) of the Act (an “**Emerging Growth Company**”). “**Testing-the-Waters Communication**” means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Act.

(v) *Testing-the-Waters Materials*. The Company (i) has not alone engaged in any Testing-the-Waters Communications, other than Testing-the-Waters Communications with the prior consent of the Underwriter with entities that are qualified institutional buyers within the meaning of Rule 144A under the Act or institutions that are accredited investors within the meaning of Rule 501 under the Act and (ii) has not authorized anyone other than the Underwriter to engage in Testing-the-Waters Communications. The Company reconfirms that the Underwriter has been authorized to act on its behalf in undertaking Testing-the-Waters Communications. The Company has not distributed any Written Testing-the-Waters Communications (as defined below). “**Written Testing-the-Waters Communication**” means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Act. Any individual Written Testing-the-Waters Communication does not conflict with the information contained in the Registration Statement or the Time of Sale Disclosure Package, complied in all material respects with the Act, and when taken together with the Time of Sale Disclosure Package as of the Time of Sale, did not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(vi) *No Other Offering Materials*. The Company has not distributed and will not distribute any prospectus or other offering material in connection with the offering and sale of the Securities and the Warrant Shares other than any Preliminary Prospectus, the Time of Sale Disclosure Package, the Prospectus or other materials permitted by the Act to be distributed by the Company; *provided, however*, that, except as set forth on Schedule IV, the Company has not made and will not make any offer relating to the Securities or the Warrant Shares that would constitute a free writing prospectus, except in accordance with the provisions of Section 4(a)(xiii) of this Agreement and the Company has not made and will not make any communication relating to the Securities or the Warrant Shares that would constitute a Testing-the-Waters Communication, except in accordance with the provisions of Section 2(a)(v) of this Agreement.

(vii) *Financial Statements*. The financial statements of the Company, together with the related notes, set forth or incorporated by reference in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus comply in all material respects with the requirements of the Act and the Exchange Act and fairly present the financial condition of the Company and its consolidated subsidiaries as of the dates indicated and the results of operations and changes in cash flows for the periods therein specified in conformity with generally accepted accounting principles in the United States (“**GAAP**”) consistently applied throughout the periods involved; the supporting schedules included in the Registration Statement present fairly the information required to be stated therein; all non-GAAP financial information, if any, included in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus complies in all material respects with the requirements of Regulation G and Item 10 of Regulation S-K under the Act; and, except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the

Prospectus, there are no material off-balance sheet arrangements (as defined in Regulation S-K under the Act, Item 303(a)(4)(ii)) or any other relationships with unconsolidated entities or other persons, that are reasonably likely to have a material effect on the Company's financial condition, results of operations, liquidity, capital expenditures, capital resources or significant components of revenue or expenses. No other financial statements or schedules are required to be included in the Registration Statement, the Time of Sale Disclosure Package or the Prospectus. To the Company's knowledge, KPMG LLP, which has expressed its opinion with respect to the financial statements and schedules filed as a part of the Registration Statement and included in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, is (A) an independent public accounting firm within the meaning of the Act and the Rules and Regulations, (B) a registered public accounting firm (as defined in Section 2(a)(12) of the Sarbanes-Oxley Act of 2002 (the "**Sarbanes-Oxley Act**")) and (C) not in violation of the auditor independence requirements of the Sarbanes-Oxley Act.

(viii) *Organization and Good Standing.* Each of the Company and its subsidiaries, including, without limitation, the entities set forth on Schedule II hereto (collectively, the "**Subsidiaries**"), has been duly organized and is validly existing and in good standing under the laws of its jurisdiction of incorporation or organization. Each of the Company and the Subsidiaries has full power and authority to own its properties and conduct its business as currently being carried on and as described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, and is duly qualified to do business and in good standing in each jurisdiction in which it owns or leases real property or in which the conduct of its business makes such qualification necessary and in which the failure to so qualify would have a material adverse effect upon the business, prospects, management, properties, operations, condition (financial or otherwise) or results of operations of the Company and the Subsidiaries, taken as a whole ("**Material Adverse Effect**").

(ix) *Absence of Certain Events.* Except as contemplated in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, subsequent to the respective dates as of which information is given in the Time of Sale Disclosure Package, neither the Company nor any of the Subsidiaries has incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions, or declared or paid any dividends or made any distribution of any kind with respect to its capital stock; and there has not been any change in the capital stock (other than a change in the number of outstanding shares of Common Stock due to the issuance of shares upon the exercise of outstanding options or warrants or conversion of convertible securities described as outstanding in, and the grant of options and awards under existing equity incentive plans described in, the Registration Statement, the Time of Sale Disclosure Package or the Prospectus), or any material change in the short-term or long-term debt (other than as a result of the conversion of convertible securities), or any issuance of options, warrants, convertible securities or other rights to purchase the capital stock, of the Company or any of the Subsidiaries, or any material adverse change in the general affairs, condition (financial or otherwise), business, prospects, management, properties, operations or results of operations of the Company and the Subsidiaries, taken as a whole ("**Material Adverse Change**"), or any development which could reasonably be expected to result in any Material Adverse Change.

(x) *Absence of Proceedings*. Except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, there is not pending or, to the knowledge of the Company, threatened or contemplated, any action, suit or proceeding (A) to which the Company or any of the Subsidiaries is a party or (B) which has as the subject thereof any officer or director of the Company or any Subsidiary, any employee benefit plan sponsored by the Company or any Subsidiary or any property or assets owned or leased by the Company or any Subsidiary before or by any court or Governmental Authority (as defined below), or any arbitrator, which, individually or in the aggregate, could reasonably be expected to result in any Material Adverse Change, or would materially and adversely affect the ability of the Company to perform its obligations under this Agreement or which are otherwise material in the context of the sale of the Securities (including the Warrant Shares). There are no current or, to the knowledge of the Company, pending, legal, governmental or regulatory actions, suits or proceedings (x) to which the Company or any of the Subsidiaries is subject or (y) which has as the subject thereof any officer or director of the Company or any Subsidiary, any employee plan sponsored by the Company or any Subsidiary or any property or assets owned or leased by the Company or any Subsidiary, that are required to be described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus by the Act or by the Rules and Regulations and that have not been so described.

(xi) *Authorization; No Conflicts; Authority*. This Agreement has been duly authorized, executed and delivered by the Company, and constitutes a valid, legal and binding obligation of the Company, enforceable in accordance with its terms, except as rights to indemnity hereunder may be limited by federal or state securities laws and except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting the rights of creditors generally and subject to general principles of equity. The execution, delivery and performance of this Agreement and the consummation of the transactions herein contemplated will not (A) conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, or result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company or any of the Subsidiaries pursuant to any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of the Subsidiaries is a party or by which the Company or any of the Subsidiaries is bound or to which any of the property or assets of the Company or any of the Subsidiaries is subject, (B) result in any violation of the provisions of the Company's charter or by-laws or (C) result in the violation of any law or statute or any judgment, order, rule, regulation or decree of any court or arbitrator or federal, state, local or foreign governmental agency or regulatory authority having jurisdiction over the Company or any of the Subsidiaries or any of their properties or assets (each, a "**Governmental Authority**"), except in the case of clause (A) as would not reasonably be expected to result in a Material Adverse Effect. No consent, approval, authorization or order of, or registration or filing with any Governmental Authority is required for the execution, delivery and performance of this Agreement or for the consummation of the transactions contemplated hereby, including the issuance or sale of the Securities and, upon exercise of the Warrants, the Warrant Shares by the Company, except such as may be required under the Act, the rules of the Financial Industry Regulatory Authority, Inc. ("**FINRA**") or state securities or blue sky laws; and the Company has full power and authority to enter into this Agreement and to consummate the transactions contemplated hereby, including the authorization, issuance and sale of the Securities and, upon exercise of the Warrants, the Warrant Shares as contemplated by this Agreement.

(xii) *Capitalization; the Securities; Registration Rights*. All of the issued and outstanding shares of capital stock of the Company, including the outstanding shares of Common Stock, have been duly authorized and validly issued, are fully paid and nonassessable, have been issued in compliance with all applicable federal and state and foreign securities laws, were not issued in violation of or subject to any preemptive rights or other rights to subscribe for or purchase securities that have not been waived in writing (a copy of which has been delivered to counsel to the Underwriter), and the holders thereof are not subject to personal liability by reason of being such holders; the Securities which may be sold hereunder by the Company have been duly authorized and, when issued, delivered and paid for in accordance with the terms of this Agreement, will be validly issued and fully paid and nonassessable, and the holders thereof will not be subject to personal liability by reason of being such holders; and the capital stock of the Company, including the Common Stock, conforms in all material respects to the description thereof in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus. The Warrants have been duly authorized for issuance and sale by the Company and, when executed, issued and delivered by the Company pursuant to this Agreement against payment of the consideration set forth herein, will constitute legal, valid and binding obligations of the Company, enforceable in accordance with their terms, except as the enforceability thereof may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally and general principles of equity. The Warrant Shares have been duly authorized and validly reserved for issuance upon exercise of the Warrants in a number sufficient to meet the current exercise requirements. Upon exercise of the Warrants in accordance with their terms, the Warrant Shares will be duly and validly issued and fully paid and non-assessable, free of statutory and contractual preemptive rights, resale rights, rights of first refusal and similar rights and free of any voting or transfer restrictions pursuant to the Company's charter or bylaws or any agreement or other instrument to which the Company is a party that have not been validly waived. The warrants of the Company (including the Warrants) conform in all material respects to the description thereof contained in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus. Except as otherwise stated in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, (A) there are no preemptive rights or other rights to subscribe for or to purchase, or any restriction upon the voting or transfer of, any shares of Common Stock pursuant to the Company's charter, by-laws or any agreement or other instrument to which the Company or any of the Subsidiaries is a party or by which the Company or any of the Subsidiaries is bound, (B) neither the filing of the Registration Statement nor the offering or sale of the Securities, or the issuance of the Warrant Shares upon conversion of the Warrants, as contemplated by this Agreement gives rise to any rights for or relating to the registration of any shares of Common Stock or other securities of the Company (collectively "**Registration Rights**") that have not been validly waived and (C) any person to whom the Company has granted Registration Rights has agreed not to exercise or has otherwise waived such rights until after expiration of the Lock-Up Period (as defined below). All of the issued and outstanding shares of capital stock of each of the Subsidiaries have been duly and validly authorized and issued and are fully paid and

nonassessable, and, except as otherwise described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, the Company owns of record and beneficially, free and clear of any security interests, claims, liens, proxies, equities or other encumbrances, all of the issued and outstanding shares of such stock. The Company has an authorized and outstanding capitalization as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus under the caption "Capitalization." The Common Stock (including the Securities and the Warrant Shares) conforms in all material respects to the description thereof contained in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus.

(xiii) Stock Options. Except as described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, there are no options, warrants, agreements, contracts or other rights in existence to purchase or acquire from the Company or any Subsidiary any shares of the capital stock of the Company or any Subsidiary. The description of the Company's stock option, stock bonus and other stock plans or arrangements (the "**Company Stock Plans**"), and the options (the "**Options**") or other rights granted thereunder, set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus accurately and fairly presents the information required to be shown with respect to such plans, arrangements, options and rights. Each grant of an Option (A) was duly authorized no later than the date on which the grant of such Option was by its terms to be effective by all necessary corporate action, including, as applicable, approval by the board of directors of the Company (or a duly constituted and authorized committee thereof) and any required stockholder approval by the necessary number of votes or written consents, and the award agreement governing such grant (if any) was duly executed and delivered by each party thereto and (B) was made in accordance with the terms of the applicable Company Stock Plan, and all applicable laws and regulatory rules or requirements, including all applicable federal securities laws.

(xiv) Compliance with Laws. Except as described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, the Company and each of the Subsidiaries holds, and is operating in compliance in all material respects with, all franchises, grants, authorizations, approvals, clearances, exemptions, registrations, licenses, permits, easements, consents, certificates and orders of any Governmental Authority or self-regulatory body required for the conduct of its business ("**Permits**") and all such Permits are valid and in full force and effect; and neither the Company nor any of the Subsidiaries has received notice of any revocation or modification of any such Permits or has reason to believe that any such Permit will not be renewed in the ordinary course; and the Company and each of the Subsidiaries is in compliance in all material respects with all applicable federal, state, local and foreign laws, regulations, orders and decrees.

(xv) Ownership of Assets. The Company and the Subsidiaries have good and marketable title to all property (whether real or personal) described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus as being owned by them, in each case free and clear of all liens, claims, security interests, other encumbrances or defects except such as would not reasonably be expected to result in a

Material Adverse Effect or as are described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus. The property held under lease by the Company and the Subsidiaries is held by them under valid, subsisting and enforceable leases with only such exceptions with respect to any particular lease as do not interfere in any material respect with the conduct of the business of the Company or the Subsidiaries.

(xvi) *Intellectual Property*. The Company and each of the Subsidiaries owns, possesses, or can acquire or license on reasonable terms, all Intellectual Property necessary for the conduct of the Company's and the Subsidiaries' businesses as now conducted and as proposed to be conducted as described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus to be conducted, except as such failure to own, possess, acquire or license such rights would not result in a Material Adverse Effect. Furthermore, (A) to the knowledge of the Company, there is no infringement, misappropriation or violation by third parties of any such Intellectual Property, except as such infringement, misappropriation or violation would not result in a Material Adverse Effect; (B) there is no pending or, to the knowledge of the Company, threatened, action, suit, proceeding or claim by others challenging the Company's or any of the Subsidiaries' rights in or to any such Intellectual Property, and the Company is unaware of any facts which would form a reasonable basis for any such claim; (C) the Intellectual Property owned by the Company and the Subsidiaries, and to the knowledge of the Company, the Intellectual Property licensed to the Company and the Subsidiaries, has not been adjudged invalid or unenforceable, in whole or in part, and there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others challenging the validity or scope of any such Intellectual Property, and the Company is not aware of any facts which would form a reasonable basis for any such claim; (D) except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, there is no prior, pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others that the Company or any of the Subsidiaries infringes, misappropriates or otherwise violates any Intellectual Property or other proprietary rights of others, neither the Company or any of the Subsidiaries has received any written notice of such claim and the Company is not aware of any other fact which would form a reasonable basis for any such claim; and (E) to the Company's knowledge, no employee of the Company or any of the Subsidiaries is in or has ever been in violation of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company or any of the Subsidiaries or actions undertaken by the employee while employed with the Company or any of the Subsidiaries. "**Intellectual Property**" shall mean all patents, patent applications, trade and service marks, trade and service mark registrations, trade names, copyrights, licenses, inventions, trade secrets, Internet domain names, technology, know-how and other intellectual property in the United States and foreign jurisdictions.

(xvii) Health Care Authorizations. The Company and each of the Subsidiaries has submitted and possesses, or qualifies for applicable exemptions to, such valid and current material registrations, listings, approvals, clearances, licenses, certificates, authorizations, accreditations, provider or supplier numbers, or permits and supplements or amendments thereto issued or required by the appropriate state, federal or foreign regulatory agencies or bodies necessary to conduct their business, including, without limitation, all such material registrations, listings, approvals, clearances, licenses, certificates, authorizations, accreditations, exemptions, provider or supplier numbers, or permits and supplements or amendments thereto required by the United States Food and Drug Administration (the “**FDA**”), the United States Department of Health and Human Services (“**HHS**”), the United States Centers for Medicare & Medicaid Services (“**CMS**”), the European Medicines Agency (the “**EMA**”), Health Canada or any other state, federal or foreign agencies or bodies engaged in the regulation of medical devices (including diagnostic products, such as laboratory developed tests), drugs, biologics or biohazardous materials (the “**Regulatory Agencies**”) (collectively, “**Regulatory Licenses**”), and except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus: (i) the Company, each of its Subsidiaries and Mattison Pathology, LLP d/b/a Avero Diagnostics (“**Managed Practice**”) has fulfilled and performed all of its obligations with respect to each Regulatory License and, to the Company’s knowledge, no event has occurred which allows, or after notice or lapse of time would allow, revocation or termination thereof or results in any other material impairment of the rights of the holder of any Regulatory License, and (ii) none of the Company, any of the Subsidiaries or the Managed Practice has received any notice of proceedings relating to the revocation or modification of, or non-compliance with, any such Regulatory License, the lack of which would not, individually or in the aggregate, have a Material Adverse Effect.

(xviii) Clinical Trials. The studies, tests and preclinical and clinical trials conducted by or on behalf of, or sponsored by, the Company or the Subsidiaries, or in which the Company or the Subsidiaries have participated, that are described in the Registration Statement, the Time of Sale Disclosure Package or the Prospectus, or the results of which are referred to in the Registration Statement, the Time of Sale Disclosure Package or the Prospectus, were and, if still pending, are being conducted in all material respects in accordance with the protocols, procedures and controls established for each such study, test or preclinical or clinical trial and pursuant to, where applicable, accepted professional and scientific standards for products or product candidates comparable to those being developed by the Company or the Subsidiaries and all applicable statutes, rules and regulations of the Regulatory Agencies to which they are subject, including without limitation the Health Care Laws (as defined below), including 21 C.F.R. Parts 50, 54, 56, 58, 312 and 812; the descriptions of the results of such studies, tests and trials contained in the Registration Statement, the Time of Sale Disclosure Package or the Prospectus do not contain any misstatement of a material fact or omit a material fact necessary to make such statements not misleading; the Company has no knowledge of any studies, tests or trials not described in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus the results of which reasonably call into question in any material respect the results of the studies, tests and trials described in the Registration Statement, the Time of Sale Disclosure Package or Prospectus; and neither the Company nor any of the Subsidiaries has received any notices or other correspondence from the FDA, the EMA, Health Canada or any other foreign, state or local governmental body exercising comparable authority or any Institutional Review Board or comparable authority requiring or threatening the termination, suspension or material modification of any studies, tests or

preclinical or clinical trials conducted by or on behalf of, or sponsored by, the Company or in which the Company has participated, and, to the Company's knowledge, there are no reasonable grounds for the same. Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, there has not been any violation of law or regulation by the Company or the Subsidiaries in their respective product development efforts, submissions or reports to any regulatory authority that could reasonably be expected to require investigation, corrective action or enforcement action.

(xix) *Compliance with Health Care Laws.* Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, the Company, the Subsidiaries, the Managed Practice and, to the Company's knowledge, their respective directors, employees and agents (while acting in such capacity) are in material compliance with all health care laws applicable to the Company and the Subsidiaries, or any of their products or activities, including, but not limited to, the federal Anti-Kickback Statute (42 U.S.C. Section 1320a-7b(b)), the Civil Monetary Penalties Law (42 U.S.C. Section 1320a-7a), the civil False Claims Act (31 U.S.C. Section 3729 et seq.), the criminal False Claims Law (42 U.S.C. Section 1320a-7b(a)), the Stark law (42 U.S.C. Section 1395nn), the Physician Payments Sunshine Act (42 U.S.C. § 1320a-7h), the Health Insurance Portability and Accountability Act of 1996 (42 U.S.C. Section 1320d et seq.) as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. Section 17921 et seq.) ("**HIPAA**"), all criminal laws relating to healthcare fraud and abuse, including but not limited to 18 U.S.C. sections 286 and 287, the healthcare fraud criminal provisions under HIPAA, the exclusion laws (42 U.S.C. Section 1320a-7), the Federal Food, Drug, and Cosmetic Act (21 U.S.C. Section 301 et seq.), the Controlled Substances Act (21 U.S.C. Section 801 et seq.), the Public Health Service Act (42 U.S.C. Section 201 et seq.), the Clinical Laboratory Improvement Amendments of 1988 (42 U.S.C. Section 263a), Medicare (Title XVIII of the Social Security Act), Medicaid (Title XIX of the Social Security Act), TRICARE (10 U.S.C. Sections 1071 et seq.), any state corporate practice or fee-splitting prohibitions, and any state or federal anti-markup or comparable laws or regulations, the regulations promulgated pursuant to such laws, and any other state, federal or foreign law, accreditation standards, regulation, memorandum, opinion letter or other issuance which imposes requirements on the manufacturing, development, testing, labeling, advertising, marketing or distribution of drugs, biologics and medical devices (including diagnostic products and laboratory developed tests), kickbacks, patient or program charges, recordkeeping, claims process, documentation requirements, medical necessity, referrals, the hiring of employees or acquisition of services or supplies from those who have been excluded from government health care programs, quality, safety, privacy, security, licensure, accreditation or any other aspect of providing health care, clinical laboratory or diagnostics products or services (collectively, "**Health Care Laws**"). None of the Company, the Subsidiaries, the Managed Practice or any of its respective officers, directors, employees or, to the Company's knowledge, agents, have engaged in activities which are, as applicable, cause for false claims liability, civil penalties, or mandatory or permissive exclusion from Medicare, Medicaid, TRICARE or any other state or federal healthcare program (collectively, the "**Programs**"). Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, none of the Company, any of the Subsidiaries or the Managed Practice has received any notification, correspondence or any other written or, to the Company's knowledge, oral communication,

including notification of any pending or threatened claim, suit, proceeding, hearing, enforcement, investigation, arbitration or other action (“**Action**”) from any governmental authority, including, without limitation, the FDA, the EMA, Health Canada, the United States Federal Trade Commission, the United States Drug Enforcement Administration, CMS, HHS’s Office of Inspector General, the United States Department of Justice and state Attorneys General or similar agencies of potential or actual non-compliance by, or liability of, the Company, the Subsidiaries or the Managed Practice under any Health Care Laws, except, with respect to any of the foregoing, such as would not, individually or in the aggregate, be material to the Company, its Subsidiaries or the Managed Practice. Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, to the Company’s knowledge, there are no facts or circumstances that would reasonably be expected to give rise to material liability of the Company, the Subsidiaries or the Managed Practice under any Health Care Laws. Except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, none of the Company, any of its Subsidiaries or the Managed Practice is a party to, and has any ongoing reporting obligations pursuant to any corporate integrity agreement, deferred prosecution agreement, monitoring agreement, consent decree, settlement order, plan of correction or similar agreement imposed by any governmental or regulatory authority. Additionally, none of the Company, its Subsidiaries, the Managed Practice or any of its respective employees, officers or directors, nor to the Company’s knowledge, any of its agents, has been excluded, suspended or debarred from participation in any Program or human clinical research or, to the knowledge of the Company, is subject to a governmental inquiry, investigation, proceeding, or other similar Action that could reasonably be expected to result in debarment, suspension, or exclusion. The statements with respect to Health Care Laws and the Company’s, the Subsidiaries’ and the Managed Practice’s compliance therewith included in the Preliminary Prospectus, in the Time of Sale Disclosure Package and in the Prospectus fairly summarize the matters therein described.

(xx) Third-Party Payor Programs. Each of the Company, its Subsidiaries and the Managed Practice meets all Program requirements and conditions of participation and are a party to valid participation or other agreements required for payment by such Programs and other third-party payor programs in which the Company is a participant. There are no material suspensions, offsets, overpayments or recoupments of any Program or material third-party payor payments being sought, requested or claimed, or to the Company’s knowledge, threatened against the Company, any Subsidiary or the Managed Practice. Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, as of the date of this Agreement, none of the Company, any Subsidiary or the Managed Practice has received any notice of denial of payment, recoupment, or overpayment from any Program or other third-party payor in excess of Five Hundred Thousand Dollars (\$500,000). Except as set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, there is no Action pending or received or, to the Company’s knowledge, threatened, against the Company, any Subsidiary or the Managed Practice which relates to a violation of any legal requirement pertaining to the Programs or other third-party payor requirement which could result in the imposition of material penalties, termination or the exclusion by the Company or its Subsidiary from participation in any Program or other third-party payor program in which the Company is a participant.

(xxi) Cybersecurity. The Company's, its Subsidiaries' and the Managed Practice's 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, its Subsidiaries and the Managed Practice as currently conducted, free and clear of all material bugs, errors, defects, Trojan horses, time bombs, malware and other corruptants. The Company, its Subsidiaries and the Managed Practice 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 GDPR (as defined below); (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, nor any incidents under internal review or investigations relating to the same. The Company, its Subsidiaries and the Managed Practice are presently in material 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.

(xxii) Compliance with Data Privacy Laws. The Company, its Subsidiaries and the Managed Practice are, and at all prior times were, in material compliance with all applicable state and federal data privacy and security laws and regulations, including without limitation HIPAA, and the Company, its Subsidiaries and the Managed Practice have taken commercially reasonable actions to prepare to comply with, and currently are in compliance with, the European Union General Data Protection Regulation ("**GDPR**") (EU 2016/679) (collectively, the "**Privacy Laws**"). To ensure compliance with the Privacy Laws, the Company, its Subsidiaries and the Managed Practice 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, its Subsidiaries and the Managed Practice 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 or the Managed Practice: (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.

(xxiii) Post-Market Reporting Obligations. The Company and the Subsidiaries are in compliance in all material respects with all applicable regulatory post-market reporting obligations, including, without limitation, the FDA's adverse event reporting requirements at 21 CFR Parts 310, 314, 600, and 803, and, to the extent applicable, the respective counterparts thereof promulgated by governmental authorities in countries outside the United States.

(xxiv) No Shutdowns or Prohibitions. Neither the Company nor any of the Subsidiaries has had any product, clinical laboratory or manufacturing site (whether Company-owned or that of a third party manufacturer) subject to a governmental authority (including FDA) shutdown or import or export prohibition, nor received any FDA Form 483 or other governmental authority notice of inspectional observations, "warning letters," "untitled letters," requests to make changes to the Company's products, processes or operations, or similar correspondence or notice from the FDA or other governmental authority alleging or asserting material noncompliance with any applicable Health Care Laws. To the Company's knowledge, neither the FDA nor any other governmental authority is considering such action.

(xxv) No Safety Notices. (A) Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, there have been no recalls, field notifications, field corrections, market withdrawals or replacements, warnings, "dear doctor" letters, investigator notices, safety alerts or other notice of action relating to an alleged lack of safety, efficacy, or regulatory compliance of the Company or the Subsidiaries' products ("**Safety Notices**") and (B) to the Company's knowledge, there are no facts that would be reasonably likely to result in (1) a Safety Notice with respect to the Company or any of the Subsidiaries' products or services, (2) a change in labeling of any of the Company's or the Subsidiaries' respective products or services, or (3) a termination or suspension of marketing or testing of any of the Company's or the Subsidiaries' respective products or services.

(xxvi) No Violations or Defaults. (A) Neither the Company nor any of the Subsidiaries is in violation of its respective charter, by-laws or other organizational documents, or in breach of or otherwise in default, and (B) except as would not reasonably be expected to result in a Material Adverse Effect, no event has occurred which, with notice or lapse of time or both, would constitute such a default in the performance of any material obligation, agreement or condition contained in any bond, debenture, note, indenture, loan agreement or any other material contract, lease or other instrument to which it is subject or by which any of them may be bound, or to which any of the material property or assets of the Company or any of the Subsidiaries is subject.

(xxvii) Taxes. The Company and the Subsidiaries have timely filed all federal, state, local and foreign income and franchise tax returns required to be filed or have properly requested extensions thereof (except as such failure to timely file such tax returns would not result in a Material Adverse Effect) and are not in default in the payment of any taxes which were payable pursuant to said returns or any assessments with respect thereto, other than any which the Company or any of the Subsidiaries is contesting in good faith. There is no pending dispute with any taxing authority relating to any of such returns, and the Company has no knowledge of any proposed liability for any tax to be imposed upon the properties or assets of the Company or any of the Subsidiaries for which there is not an adequate reserve reflected in the Company's financial statements included in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus.

(xxviii) Exchange Listing and Exchange Act Registration. The Common Stock is, and, when issued upon exercise of the Warrants, the Warrant Shares will be, registered pursuant to Section 12(b) of the Exchange Act and is, and, when issued upon exercise of the Warrants, the Warrant Shares will be, included or approved for listing on the Nasdaq Global Market and the Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or delisting the Common Stock from the Nasdaq Global Market nor has the Company received any notification that the Commission or the Nasdaq Global Market is contemplating terminating such registration or listing. The Company has complied in all material respects with the applicable requirements of the Nasdaq Global Market for maintenance of inclusion of the Common Stock thereon. The Company has filed an application to include the Securities, including the Warrant Shares, on the Nasdaq Global Market. Except as previously disclosed to counsel for the Underwriter or as set forth in the Time of Sale Disclosure Package and the Prospectus, to the knowledge of the Company, no beneficial owners of the Company's capital stock or subordinated debt who, together with their associated persons and affiliates, hold in the aggregate 10% or more of such capital stock or subordinated debt, have any direct or indirect association or affiliate with a FINRA member.

(xxix) Ownership of Other Entities. Other than the Subsidiaries listed in Schedule II to this Agreement, the Company, directly or indirectly, owns no capital stock or other equity or ownership or proprietary interest in any corporation, partnership, association, trust or other entity.

(xxx) Internal Controls. The Company and the Subsidiaries maintain a system of internal accounting controls sufficient to provide reasonable assurances that (A) transactions are executed in accordance with management's general or specific authorization; (B) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (C) access to assets is permitted only in accordance with management's general or specific authorization; (D) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences; and (E) interactive

data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement, the Prospectus and the Time of Sale Disclosure Package fairly presents the information called for in all material respects and is prepared in accordance with the Commission's rules and guidelines applicable thereto. Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, the Company's internal control over financial reporting is effective and none of the Company, its board of directors and audit committee is aware of any "significant deficiencies" or "material weaknesses" (each as defined by the Public Company Accounting Oversight Board) in its internal control over financial reporting, or any fraud, whether or not material, that involves management or other employees of the Company or the Subsidiaries who have a significant role in the Company's internal controls; and since the end of the latest audited fiscal year, there has been no change in the Company's internal control over financial reporting (whether or not remediated) that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. The Company's board of directors has, subject to the exceptions, cure periods and the phase-in periods specified in the applicable stock exchange rules ("**Exchange Rules**"), validly appointed an audit committee to oversee internal accounting controls whose composition satisfies the applicable requirements of the Exchange Rules and the Company's board of directors and/or the audit committee has adopted a charter that satisfies the requirements of the Exchange Rules in respect of the audit committee.

(xxxii) No Brokers or Finders. Other than as contemplated by this Agreement, the Company has not incurred and will not incur any liability for any finder's or broker's fee or agent's commission in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby.

(xxxiii) Insurance. The Company and each of the Subsidiaries carries, or is covered by, insurance from reputable insurers in such amounts and covering such risks as the Company reasonably believes is adequate for the conduct of its business and the value of its properties and the properties of the Subsidiaries and as is customary for companies engaged in similar businesses in similar industries; all policies of insurance and any fidelity or surety bonds insuring the Company or any of the Subsidiaries or its business, assets, employees, officers and directors are in full force and effect; the Company and the Subsidiaries are in compliance with the terms of such policies and instruments in all material respects; there are no claims by the Company or any of the Subsidiaries under any such policy or instrument as to which any insurance company is denying liability or defending under a reservation of rights clause; neither the Company nor any of the Subsidiaries has been refused any insurance coverage sought or applied for; and neither the Company nor any of the Subsidiaries has reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not have a Material Adverse Effect.

(xxxiii) Investment Company Act. The Company is not and, after giving effect to the offering and sale of the Securities and, upon exercise of the Warrants, the issuance of the Warrant Shares and the application of the proceeds therefrom, will not be an “investment company,” as such term is defined in the Investment Company Act of 1940, as amended.

(xxxiv) Sarbanes-Oxley Act. The Company is in compliance with all applicable provisions of the Sarbanes-Oxley Act and the rules and regulations of the Commission thereunder.

(xxxv) Disclosure Controls. The Company has established and maintains disclosure controls and procedures (as defined in Rules 13a-14 and 15d-14 under the Exchange Act) and such controls and procedures are effective in ensuring that material information relating to the Company, including the Subsidiaries, is made known to the principal executive officer and the principal financial officer. The Company has utilized such controls and procedures in preparing and evaluating the disclosures in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus.

(xxxvi) Anti-Bribery and Anti-Money Laundering Laws. Each of the Company, the Subsidiaries, any of their respective officers, directors, affiliates and employees, and, to the Company’s knowledge, any of their respective agents has not violated, its participation in the offering will not violate, and the Company and each of the Subsidiaries has instituted and maintains policies and procedures designed to ensure continued compliance with, each of the following laws: (A) anti-bribery laws, including but not limited to, any applicable law, rule or regulation of any locality, including but not limited to any law, rule or regulation promulgated to implement the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, signed December 17, 1997, including the U.S. Foreign Corrupt Practices Act of 1977, as amended, the U.K. Bribery Act 2010, or any other law, rule or regulation of similar purposes and scope or (B) anti-money laundering laws, including but not limited to, applicable federal, state, international, foreign or other laws, regulations or government guidance regarding anti-money laundering, including, without limitation, Title 18 U.S. Code section 1956 and 1957, the Patriot Act, the Bank Secrecy Act and international anti-money laundering principles or procedures by an intergovernmental group or organization, such as the Financial Action Task Force on Money Laundering, of which the United States is a member and with which designation the United States representative to the group or organization continues to concur, all as amended, and any Executive order, directive or regulation pursuant to the authority of any of the foregoing, or any orders or licenses issued thereunder.

(xxxvii) OFAC.

(A) Neither the Company nor any of the Subsidiaries, nor any of their directors, officers or employees, nor, to the Company’s knowledge, any agent, affiliate or representative of the Company or the Subsidiaries, is an individual or entity that is, or is owned or controlled by an individual or entity that is:

(1) the subject of any sanctions administered or enforced by the U.S. Department of Treasury’s Office of Foreign Assets Control, the United Nations Security Council, the European Union, Her Majesty’s Treasury, or other relevant sanctions authority (collectively, “**Sanctions**”), nor

(2) located, organized or resident in a country or territory that is the subject of Sanctions (including, without limitation, Burma/Myanmar, Cuba, Iran, Libya, North Korea and Syria).

(B) Neither the Company nor any of the Subsidiaries will, directly or indirectly, use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any Subsidiary, joint venture partner or other individual or entity:

(1) to fund or facilitate any activities or business of or with any individual or entity or in any country or territory that, at the time of such funding or facilitation, is the subject of Sanctions; or

(2) in any other manner that will result in a violation of Sanctions by any individual or entity (including any individual or entity participating in the offering, whether as underwriter, advisor, investor or otherwise).

(C) For the past five years, neither the Company nor any of the Subsidiaries has knowingly engaged in, and is not now knowingly engaged in, any dealings or transactions with any individual or entity, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions.

(xxxviii) Compliance with Environmental Laws. Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, neither the Company nor any of the Subsidiaries is in violation of any statute, any rule, regulation, decision or order of any Governmental Authority or any court, domestic or foreign, relating to the use, disposal or release of hazardous or toxic substances or relating to the protection or restoration of the environment or human exposure to hazardous or toxic substances (collectively, “**Environmental Laws**”), owns or operates any real property contaminated with any substance that is subject to any Environmental Laws, is liable for any off-site disposal or contamination pursuant to any Environmental Laws, or is subject to any claim relating to any Environmental Laws, which violation, contamination, liability or claim would individually or in the aggregate, have a Material Adverse Effect; and the Company is not aware of any pending investigation which might lead to such a claim. Neither the Company nor any of the Subsidiaries anticipates incurring any material capital expenditures relating to compliance with Environmental Laws.

(xxxix) Compliance with Occupational Laws. The Company and each of the Subsidiaries (A) is in compliance, in all material respects, with any and all applicable foreign, federal, state and local laws, rules, regulations, treaties, statutes and codes promulgated by any and all Governmental Authorities (including pursuant to the Occupational Health and Safety Act) relating to the protection of human health and safety

in the workplace (“**Occupational Laws**”); (B) has received all material permits, licenses or other approvals required of it under applicable Occupational Laws to conduct its business as currently conducted; and (C) is in compliance, in all material respects, with all terms and conditions of such permit, license or approval. No action, proceeding, revocation proceeding, writ, injunction or claim is pending or, to the Company’s knowledge, threatened against the Company or any of the Subsidiaries relating to Occupational Laws, and the Company does not have knowledge of any facts, circumstances or developments relating to its operations or cost accounting practices that could reasonably be expected to form the basis for or give rise to such actions, suits, investigations or proceedings.

(xl) **ERISA and Employee Benefits Matters.** (A) To the knowledge of the Company, no “prohibited transaction” as defined under Section 406 of ERISA or Section 4975 of the Code and not exempt under ERISA Section 408 and the regulations and published interpretations thereunder has occurred with respect to any Employee Benefit Plan. At no time has the Company or any ERISA Affiliate maintained, sponsored, participated in, contributed to or has or had any liability or obligation in respect of any Employee Benefit Plan subject to Part 3 of Subtitle B of Title I of ERISA, Title IV of ERISA, or Section 412 of the Code or any “multiemployer plan” as defined in Section 3(37) of ERISA or any multiple employer plan for which the Company or any ERISA Affiliate has incurred or would reasonably be expected to incur liability under Section 4063 or 4064 of ERISA. No Employee Benefit Plan provides or promises, or at any time provided or promised, retiree health, life insurance, or other retiree welfare benefits except as may be required by the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, or similar state law. Each Employee Benefit Plan is and has been operated in material compliance with its terms and all applicable laws, including but not limited to ERISA and the Code and, to the knowledge of the Company, no event has occurred (including a “reportable event” as such term is defined in Section 4043 of ERISA) and no condition exists that would subject the Company or any ERISA Affiliate to any material tax, fine, lien, penalty or liability imposed by ERISA, the Code or other applicable law. Each Employee Benefit Plan intended to be qualified under Code Section 401(a) is so qualified and has a favorable determination or opinion letter from the Internal Revenue Service upon which it can rely, and any such determination or opinion letter remains in effect and has not been revoked; to the knowledge of the Company, nothing has occurred since the date of any such determination or opinion letter that is reasonably likely to adversely affect such qualification; (B) with respect to each Foreign Benefit Plan, such Foreign Benefit Plan (1) if intended to qualify for special tax treatment, meets, in all material respects, the requirements for such treatment, and (2) if required to be funded, is funded to the extent required by applicable law, and with respect to all other Foreign Benefit Plans, adequate reserves therefor have been established on the accounting statements of the applicable Company or Subsidiary; (C) the Company does not have any obligations under any collective bargaining agreement with any union and no organization efforts are underway with respect to Company employees. As used in this Agreement, “**Code**” means the Internal Revenue Code of 1986, as amended; “**Employee Benefit Plan**” means any “employee benefit plan” within the meaning of Section 3(3) of ERISA, including, without limitation, all stock purchase, stock option, stock-based severance, employment, change-in-control, medical, disability, fringe benefit, bonus, incentive,

deferred compensation, employee loan and all other employee benefit plans, agreements, programs, policies or other arrangements, whether or not subject to ERISA, under which (x) any current or former employee, director or independent contractor of the Company or the Subsidiaries has any present or future right to benefits and which are contributed to, sponsored by or maintained by the Company or any of the Subsidiaries or (y) the Company or any of the Subsidiaries has had or has any present or future obligation or liability; “**ERISA**” means the Employee Retirement Income Security Act of 1974, as amended; “**ERISA Affiliate**” means any member of the company’s controlled group as defined in Code Section 414(b), (c), (m) or (o); and “**Foreign Benefit Plan**” means any Employee Benefit Plan established, maintained or contributed to outside of the United States or which covers any employee working or residing outside of the United States.

(xli) *Business Arrangements*. Except as disclosed in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, neither the Company nor any of the Subsidiaries has granted rights to develop, manufacture, produce, assemble, distribute, license, market or sell its products to any other person and is not bound by any agreement that affects the exclusive right of the Company or such Subsidiary to develop, manufacture, produce, assemble, distribute, license, market or sell its products.

(xlii) *Labor Matters*. No labor problem or dispute with the employees of the Company or any of the Subsidiaries exists or, to the knowledge of the Company, is threatened or imminent, and the Company is not aware of any existing or imminent labor disturbance by the employees of any of its or the Subsidiaries’ principal suppliers, contractors or customers, that could have a Material Adverse Effect.

(xliii) *Restrictions on Subsidiary Payments to the Company*. No Subsidiary is currently prohibited, directly or indirectly, from paying any dividends to the Company, from making any other distribution on such Subsidiary’s capital stock, from repaying to the Company any loans or advances to such Subsidiary from the Company or from transferring any of such Subsidiary’s property or assets to the Company or any other Subsidiary, except as described in or contemplated by the Registration Statement, the Time of Sale Disclosure Package and the Prospectus.

(xliv) *Disclosure of Legal Matters*. There are no statutes, regulations, legal or governmental proceedings or contracts or other documents required to be described in the Time of Sale Disclosure Package or the Prospectus or included as exhibits to the Registration Statement that are not described or included as required.

(xlv) *Statistical Information*. Any third-party statistical and market-related data included in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus are based on or derived from sources that the Company believes to be reliable and accurate in all material respects.

(xlv) Forward-looking Statements. No forward-looking statement (within the meaning of Section 27A of the Act and Section 21E of the Exchange Act) contained in the Registration Statement, the Time of Sale Disclosure Package or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(xlvii) FinCEN Matters. All of the beneficial ownership information provided to the Underwriter or to counsel for the Underwriter by the Company or its counsel in compliance with the control and beneficial ownership certification requirements of the Financial Crimes Enforcement Network within the U.S. Department of the Treasury ("**FinCEN**") is true, complete, correct and compliant with the rules, regulations and requirements of FinCEN.

(xlviii) Eligibility to use Form S-3. The conditions for use of Form S-3, set forth in the General Instructions thereto, including, but not limited to, General Instruction I.B.1 of Form S-3, have been satisfied.

(xlix) Incorporated Documents. The documents incorporated by reference in the Time of Sale Disclosure Package and in the Prospectus, when they became effective or were filed with the Commission, as the case may be, conformed in all material respects to the requirements of the Act or the Exchange Act, as applicable, and were filed on a timely basis with the Commission and none of such documents contained an untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; any further documents so filed and incorporated by reference in the Time of Sale Disclosure Package or in the Prospectus, when such documents are filed with the Commission, will conform in all material respects to the requirements of the Exchange Act, and will not contain an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(b) Effect of Certificates. Any certificate signed by any officer of the Company and delivered to you or to counsel for the Underwriter shall be deemed a representation and warranty by the Company to the Underwriter as to the matters covered thereby.

### **3. Purchase, Sale and Delivery of Securities.**

(a) Firm Shares and Firm Warrants. On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell the Firm Shares and the Firm Warrants to the Underwriter, and the Underwriter agrees to purchase from the Company the number of Firm Shares and Firm Warrants set forth opposite the name of such Underwriter in Schedule I hereto. The combined purchase price for each Firm Share and Firm Warrant shall be \$0.94 per unit, which shall be allocated as \$0.93060 per share of Common Stock (the "**Per Share Purchase Price**") and \$0.0094 per Warrant (the "**Per Warrant Purchase Price**"). The obligation of the Underwriter to the Company shall be to purchase from the Company that number of Firm Shares and Firm Warrants set forth opposite the name of the Underwriter in Schedule I. In making this Agreement, the Underwriter is contracting to purchase only the number of Firm Shares and Firm Warrants specified in Schedule I.

(b) *Option Shares and Option Warrants.* On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company hereby grants to the Underwriter an option to purchase up to any combination of 6,000,000 Option Shares and/or Option Warrants to purchase 6,000,000 shares of Common Stock at the Per Share Purchase Price and/or the Per Warrant Purchase Price, respectively. The option granted hereunder may be exercised in whole or in part at any time within 30 days after the effective date of this Agreement upon notice (confirmed in writing) by the Underwriter to the Company setting forth the aggregate number of Option Shares and/or Option Warrants as to which the Underwriter is exercising the option and the date and time, as determined by you, when the Option Shares and/or Option Warrants are to be delivered, but in no event earlier than the First Closing Date (as defined below) nor earlier than the second business day or later than the tenth business day after the date on which the option shall have been exercised. No Option Shares or Option Warrants shall be sold and delivered unless the Firm Shares and Firm Warrants previously have been, or simultaneously are, sold and delivered.

(c) *Payment and Delivery.*

(i) The Securities to be purchased by the Underwriter hereunder, in such authorized denominations and registered in such names as H.C. Wainwright & Co., LLC may request upon at least 48 hours' prior notice to the Company, shall be delivered by or on behalf of the Company to H.C. Wainwright & Co., LLC, through the facilities of the Depository Trust Company ("**DTC**"), for the account of the Underwriter, with any transfer taxes payable in connection with the transfer of the Securities to the Underwriter duly paid, against payment by or on behalf of such Underwriter of the purchase price therefor by wire transfer of Federal (same-day) funds to the account specified by the Company to H.C. Wainwright & Co., LLC at least 48 hours in advance. The time and date of such delivery and payment shall be, with respect to the Firm Shares and Firm Warrants set forth opposite the name of the Underwriter in Schedule I hereto, 9:30 a.m., New York City time, on August 24, 2021 or such other time and date as H.C. Wainwright & Co., LLC and the Company may agree upon in writing, and, with respect to the Option Shares and/or Option Warrants, 9:30 a.m., New York City time, on the date specified by H.C. Wainwright & Co., LLC in each written notice given by H.C. Wainwright & Co., LLC of the Underwriter's election to purchase such Option Shares and Option Warrants, or such other time and date as H.C. Wainwright & Co., LLC and the Company may agree upon in writing. Such time and date for delivery of the Firm Shares and Firm Warrants is herein called the "**First Closing Date**," each such time and date for delivery of the Option Shares and/or Option Warrants, if not the First Closing Date, is herein called a "**Second Closing Date**," and each such time and date for delivery is herein called a "**Closing**."

(ii) The documents to be delivered at each Closing by or on behalf of the parties hereto pursuant to Section 5 hereof, including the cross receipt for the Securities and any additional documents requested by the Underwriter pursuant to Section 5(j) hereof, will be delivered at the offices of H.C. Wainwright & Co., LLC, 430 Park Avenue, 4th Floor, New York, New York 10022 (the "**Closing Location**"), and the Securities will be delivered to H.C. Wainwright & Co., LLC, through the facilities of the DTC, for the accounts of the Underwriter, all at such Closing. A meeting will be held at the Closing Location at 9:30 a.m.,

New York City time, on the New York Business Day next preceding such Closing, at which meeting the final drafts of the documents to be delivered pursuant to the preceding sentence will be available for review by the parties hereto. For the purposes of this Section 3, "**New York Business Day**" shall mean each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in New York City are generally authorized or obligated by law or executive order to close.

(iii) In the event that the Firm Shares and the Firm Warrants (and Option Shares and/or Option Warrants, if elected by the Underwriter) are not delivered to the Underwriter by 2:30 p.m., New York City time, on the First Closing Date (and the Second Closing Date, if elected by the Underwriter), the Company will return payment of the full purchase price to H.C. Wainwright & Co., LLC via same day funds by 4:30 p.m., New York City time. The Company shall remain liable to H.C. Wainwright & Co., LLC for the full amount of the purchase price and any costs associated with recovering the purchase price until the full amount has been received by H.C. Wainwright & Co., LLC.

#### 4. *Covenants.*

(a) *Covenants of the Company.* The Company covenants and agrees with the Underwriter as follows:

(i) *Required Filings.* The Company will prepare and file a Prospectus with the Commission containing the Rule 430B Information omitted from the Preliminary Prospectus within the time period required by, and otherwise in accordance with the provisions of, Rules 424(b) and 430B of the Rules and Regulations. If the Company has elected to rely upon Rule 462(b) of the Rules and Regulations to increase the size of the offering registered under the Act and the Rule 462(b) Registration Statement has not yet been filed and become effective, the Company will prepare and file the Rule 462 Registration Statement with the Commission within the time period required by, and otherwise in accordance with the provisions of, Rule 462(b) and the Act. The Company will prepare and file with the Commission, promptly upon your request, any amendments or supplements to the Registration Statement or Prospectus that, in your opinion, may be necessary or advisable in connection with the distribution of the Securities by the Underwriter; and the Company will furnish the Underwriter and counsel for the Underwriter a copy of any proposed amendment or supplement to the Registration Statement or Prospectus and will not file any amendment or supplement to the Registration Statement or Prospectus to which you shall reasonably object by notice to the Company after having been furnished a copy a reasonable time prior to the filing.

(ii) *Notification of Certain Commission Actions.* The Company will advise you, promptly after it shall receive notice or obtain knowledge thereof, of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement, or any post-effective amendment thereto or preventing or suspending the use of any Preliminary Prospectus, the Time of Sale Disclosure Package, the Prospectus or any issuer free writing prospectus, of the suspension of the qualification of the Securities for offering or sale in any jurisdiction, or of the initiation or threatening of any proceeding for any such purpose; and the Company will promptly use its reasonable best efforts to prevent the issuance of any stop order or to obtain its withdrawal if such a stop order should be issued.

(iii) Continued Compliance with Securities Laws.

(A) Within the time during which a prospectus (assuming the absence of Rule 172 of the Rules and Regulations) relating to the Securities and the Warrant Shares is required to be delivered under the Act by the Underwriter or any dealer, the Company will comply with all requirements imposed upon it by the Act, as now and hereafter amended, and by the Rules and Regulations, as from time to time in force, and by the Exchange Act, so far as necessary to permit the continuance of sales of or dealings in the Securities as contemplated by the provisions hereof, the Time of Sale Disclosure Package and the Prospectus. If during such period any event occurs as a result of which the Prospectus (or if the Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) would include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during such period it is necessary to amend the Registration Statement or supplement the Prospectus (or if the Prospectus is not yet available to prospective investors, the Time of Sale Disclosure Package) to comply with the Act, the Company promptly will (1) notify you of such untrue statement or omission, (2) amend the Registration Statement or supplement the Prospectus (or, if the Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) (at the expense of the Company) so as to correct such statement or omission or effect such compliance, and (3) notify you when any amendment to the Registration Statement is filed or becomes effective or when any supplement to the Prospectus (or, if the Prospectus is not yet available to prospective purchasers, the Time of Sale Disclosure Package) is filed.

(B) If at any time following issuance of an issuer free writing prospectus or Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such issuer free writing prospectus or Written Testing-the-Waters Communication conflicted or would conflict with the information contained in the Registration Statement, any Preliminary Prospectus or the Prospectus relating to the Securities or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at that subsequent time, not misleading, the Company (1) has promptly notified or promptly will notify the Underwriter of such conflict, untrue statement or omission, (2) has promptly amended or will promptly amend or supplement, at its own expense, such issuer free writing prospectus or Written Testing-the-Waters Communication to eliminate or correct such conflict, untrue statement or omission and (3) has notified or promptly will notify you when such amendment or supplement was or is filed with the Commission to the extent required to be filed by the Rules and Regulations.

(iv) *Blue Sky Qualifications*. The Company shall take or cause to be taken all necessary action to qualify the Securities for sale under the securities laws of such domestic United States or foreign jurisdictions as you reasonably designate and to continue such qualifications in effect so long as required for the distribution of the Securities, except that the Company shall not be required in connection therewith to qualify as a foreign corporation or to execute a general consent to service of process in any state.

(v) *Provision of Documents*. The Company will furnish, at its own expense, to the Underwriter and counsel for the Underwriter copies of the Registration Statement, and to the Underwriter and any dealer each Preliminary Prospectus, the Time of Sale Disclosure Package, the Prospectus, any issuer free writing prospectus and all amendments and supplements to such documents, in each case as soon as available and in such quantities as you may from time to time reasonably request.

(vi) *Rule 158*. The Company will make generally available to its security holders as soon as practicable, but in no event later than 15 months after the end of the Company's current fiscal quarter, an earnings statement (which need not be audited) covering a 12-month period beginning after the effective date of the Registration Statement (which, for purposes of this paragraph, will be deemed to be the effective date of the Rule 462(b) Registration Statement, if applicable) that shall satisfy the provisions of Section 11(a) of the Act and Rule 158 of the Rules and Regulations.

(vii) *Payment and Reimbursement of Expenses*. The Company, whether or not the transactions contemplated hereunder are consummated or this Agreement is terminated, will pay or cause to be paid (A) all expenses (including transfer taxes allocated to the respective transferees) incurred by the Company in connection with the delivery to the Underwriter of the Securities, (B) all expenses and fees (including, without limitation, fees and expenses of the Company's accountants and counsel but, except as otherwise provided below, not including fees of the Underwriter's counsel) in connection with the preparation, printing, filing, delivery, and shipping of the Registration Statement (including the financial statements therein and all amendments, schedules, and exhibits thereto), the Securities, each Preliminary Prospectus, the Time of Sale Disclosure Package, the Prospectus, any issuer free writing prospectus and any amendment thereof or supplement thereto, and the printing, delivery, and shipping of this Agreement and other underwriting documents, including Blue Sky Memoranda (covering the states and other applicable jurisdictions), (C) all filing fees and reasonable and documented fees and disbursements of the Underwriter's counsel incurred in connection with the qualification of the Securities for offering and sale by the Underwriter or by dealers under the securities or blue sky laws of the states and other jurisdictions which you shall designate, (D) the fees and expenses of the Company's transfer agent or registrar, (E) the filing fees and reasonable and documented fees and disbursements of Underwriter's counsel incident to any required review and approval by FINRA of the terms of the sale of the Securities, (F) Nasdaq Global Market listing fees, if any, (G) the cost and expenses of the Company relating to investor presentations or any "road show" undertaken in connection with marketing of the Securities, including, without limitation, expenses associated with the preparation or dissemination of any electronic road show, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in

connection with the road show presentations with the prior approval of the Company, travel and lodging expenses of the representatives and officers of the Company and any such consultants, and one half of the cost of any aircraft chartered in connection with the road show, (H) \$15,950 for clearing fees payable by the Underwriter, (I) all other fees and expenses Underwriter's counsel incurred in connection with the transactions contemplated hereunder, whether or not the transactions contemplated hereunder are consummated or this Agreement is terminated, and (J) all other costs and expenses of the Company incident to the performance of its obligations hereunder that are not otherwise specifically provided for herein. If the sale of the Securities provided for herein is not consummated by reason of any failure, refusal or inability on the part of the Company to perform any agreement on its part to be performed, or because any other condition of the Underwriter's obligations hereunder required to be fulfilled by the Company is not fulfilled, the Company will reimburse the Underwriter for all reasonable out-of-pocket accountable disbursements (including but not limited to reasonable fees and disbursements of counsel, printing expenses, travel expenses, postage, facsimile and telephone charges) incurred by the Underwriter in connection with their investigation, preparing to market and marketing of the Securities or in contemplation of performing their obligations hereunder; provided, however, that the total fees and disbursement of the Underwriter's counsel pursuant to (C) and (E) above shall not exceed \$50,000 in the aggregate. The Underwriter shall pay one half of the cost of any aircraft chartered in connection with the road show and except as otherwise explicitly provided for in this Section 4(a)(vii), the Underwriter shall pay all of their own expenses incurred in connection with any road show and any travel and lodging expenses incurred in connection with drafting sessions.

(viii) *Use of Proceeds*. The Company will apply the net proceeds from the sale of the Securities to be sold by it hereunder for the purposes set forth in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus and will file such reports with the Commission with respect to the sale of the Securities and the application of the proceeds therefrom as may be required in accordance with Rule 463 of the Rules and Regulations.

(ix) *Company Lock Up*. The Company will not, without the prior written consent of H.C. Wainwright & Co., LLC, from the date of execution of this Agreement and continuing to and including the date ninety (90) days after the date of the Prospectus (the "**Lock-Up Period**"), (A) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock or (B) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Common Stock, whether any such transaction described in clause (A) or (B) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise, except (i) to the Underwriter pursuant to this Agreement, (ii) for issuances and grants to directors, officers, employees and consultants of the Company pursuant to the Company Stock Plans, (iii) for issuances pursuant to the exercise (including any net exercise or exercise by delivery of already-owned shares of Common Stock) of outstanding options or warrants or conversion of convertible securities described as outstanding in the

Registration Statement, the Time of Sale Disclosure Package or the Prospectus, provided that such securities have not been amended since the date of this Agreement to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities or to extend the term of such securities, (iv) for issuances of common stock or securities convertible into or exercisable for shares of common stock in connection with any acquisition, collaboration, partnership, joint venture, strategic alliance, licensing or other strategic transaction or any debt financing transaction, so long as the purpose of such issuance is not primarily for capital raising; provided, that in the case of this clause (iv), (x) such issuances shall not be greater than 10% of the total outstanding shares of common stock outstanding immediately after the completion of this offering and (y) such issuances are issued as “restricted securities” (as defined in Rule 144 promulgated under the Securities Act) and carry no registration rights that require or permit the filing of any registration statement in connection therewith within ninety (90) days after the date of this Agreement, (v) any shares of Common Stock issued or options to purchase shares of Common Stock granted pursuant to any non-employee director compensation plan or dividend reinvestment plan referred to in the Registration Statement, the Time of Sale Disclosure Package or the Prospectus, or (vi) the filing by the Company of a registration statement with the Commission on Form S-8 or a successor form thereto with respect to the registration of securities to be offered under any plans or programs in effect on the date hereof and referred to in clauses (ii) and (v) above; provided further, that each recipient of shares of Common Stock, or securities exchangeable or exercisable for or convertible into common stock, shall be contractually prohibited from selling, offering, disposing of or otherwise transferring any such shares or securities during the remainder of the Lock-Up Period. The Company agrees not to accelerate the vesting of any option or warrant or the lapse of any repurchase right prior to the expiration of the Lock-Up Period.

(x) *Stockholder Lock-Ups*. The Company has caused to be delivered to you prior to the date of this Agreement a letter, in the form of Exhibit B hereto (the “*Lock-Up Agreement*”), from each individual or entity listed on Schedule III. The Company will enforce the terms of each Lock-Up Agreement and issue stop-transfer instructions to its transfer agent and registrar for the Common Stock with respect to any transaction or contemplated transaction that would constitute a breach of or default under the applicable Lock-Up Agreement.

(xi) *No Market Stabilization or Manipulation*. The Company has not taken and will not take, directly or indirectly, any action designed to or which would reasonably be expected to cause or result in, or which has constituted, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities or the Warrant Shares, and has not effected any sales of Common Stock which are required to be disclosed in response to Item 701 of Regulation S-K under the Act which have not been so disclosed in the Registration Statement.

(xii) *SEC Reports*. The Company will file on a timely basis with the Commission such periodic and special reports as required by the Rules and Regulations.

(xiii) Internal Controls. The Company and the Subsidiaries will maintain such controls and other procedures, including without limitation those required by Sections 302 and 906 of the Sarbanes-Oxley Act and the applicable regulations thereunder, that are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms, 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 Exchange Act is accumulated and communicated to the Company's management, including its principal executive officer and its principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure, to ensure that material information relating to Company, including the Subsidiaries, is made known to them by others within those entities.

(xiv) Sarbanes-Oxley. The Company and the Subsidiaries will comply with all applicable provisions of the Sarbanes-Oxley Act.

(xv) Free Writing Prospectuses. The Company represents and agrees that, unless it obtains the prior written consent of H.C. Wainwright & Co., LLC, and H.C. Wainwright & Co., LLC agrees that, unless it obtains the prior written consent of the Company it has not made and will not make any offer relating to the Securities or the Warrant Shares that would constitute an issuer free writing prospectus or that would otherwise constitute a free writing prospectus required to be filed with the Commission; provided that the prior written consent of the parties hereto shall be deemed to have been given in respect of the free writing prospectuses included in Schedule IV. Any such free writing prospectus consented to by the Company and H.C. Wainwright & Co., LLC is hereinafter referred to as a "**Permitted Free Writing Prospectus**." The Company represents that it has treated or agrees that it will treat each Permitted Free Writing Prospectus as an issuer free writing prospectus, and has complied and will comply with the requirements of Rules 164 and 433 of the Rules and Regulations applicable to any Permitted Free Writing Prospectus. The Company represents that it has satisfied and agrees that it will satisfy the conditions in Rule 433 to avoid a requirement to file with the Commission any electronic road show. The Underwriter represents and agrees that, (A) unless it obtains the prior written consent of the Company, it has not distributed, and will not distribute any Written Testing-the-Waters Communication, and (B) any Testing-the-Waters Communication undertaken by it was with entities that are qualified institutional buyers with the meaning of Rule 144A under the Act or institutions that are accredited investors within the meaning of Rule 501 under the Act.

(xvi) Emerging Growth Company. The Company will promptly notify the Underwriter if the Company ceases to be an Emerging Growth Company at any time prior to the later of (A) completion of the distribution of Securities within the meaning of the Act and (B) completion of the 90-day restricted period referenced in Section 4(a)(ix) hereof.

5. **Conditions of Underwriter's Obligations.** The obligations of the Underwriter hereunder are subject to the accuracy, as of the date hereof and at each of the First Closing Date and the Second Closing Date (as if made at such Closing Date), of and compliance with all representations, warranties and agreements of the Company contained herein, to the performance by the Company of its obligations hereunder and to the following additional conditions:

(a) **Required Filings; Absence of Certain Commission Actions.** All filings required by Rules 424, 430B and 433 of the Rules and Regulations shall have been timely made (without reliance on Rule 424(b)(8) or Rule 164(b)); no stop order suspending the effectiveness of the Registration Statement or any part thereof, any Rule 462(b) Registration Statement, or any amendment thereof, nor suspending or preventing the use of the Time of Sale Disclosure Package, the Prospectus or any issuer free writing prospectus shall have been issued; no proceedings for the issuance of such an order shall have been initiated or, to the knowledge of the Company, threatened; and any request of the Commission for additional information (to be included in the Registration Statement, the Time of Sale Disclosure Package, the Prospectus, any issuer free writing prospectus or otherwise) shall have been complied with to your satisfaction.

(b) **Continued Compliance with Securities Laws.** No Underwriter shall have advised the Company that (i) the Registration Statement or any amendment thereof or supplement thereto contains an untrue statement of a material fact which, in your opinion, is material or omits to state a material fact which, in your opinion, is required to be stated therein or necessary to make the statements therein not misleading, or (ii) the Time of Sale Disclosure Package or the Prospectus, or any amendment thereof or supplement thereto, or any issuer free writing prospectus contains an untrue statement of fact which, in your opinion, is material, or omits to state a fact which, in your opinion, is material and is required to be stated therein, or necessary to make the statements therein, in light of the circumstances under which they are made, not misleading.

(c) **Absence of Certain Events.** Except as contemplated in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus, subsequent to the respective dates as of which information is given in the Time of Sale Disclosure Package and the Prospectus, neither the Company nor any of the Subsidiaries shall have incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions, or declared or paid any dividends or made any distribution of any kind with respect to its capital stock; and there shall not have been any change in the capital stock (other than a change in the number of outstanding shares of Common Stock due to the issuance of shares upon the exercise of outstanding options or warrants or conversion of convertible securities), or any material change in the short-term or long-term debt of the Company (other than as a result of the conversion of convertible securities), or any issuance of options, warrants, convertible securities or other rights to purchase the capital stock of the Company or any of the Subsidiaries, or any Material Adverse Change or any development involving a prospective Material Adverse Change (whether or not arising in the ordinary course of business), that, in your judgment, makes it impractical or inadvisable to offer or deliver the Securities on the terms and in the manner contemplated in the Registration Statement, the Time of Sale Disclosure Package and the Prospectus.

(d) No Downgrade. On or after the Time of Sale, (i) no downgrading shall have occurred in the rating accorded the Company's debt securities or preferred stock by any "nationally recognized statistical organization," as that term is defined by the Commission for purposes of Rule 436(g)(2) under the Act, and (ii) no such organization shall have publicly announced that it has under surveillance or review, with possible negative implications, its rating of any of the Company's debt securities or preferred stock.

(e) Opinion of Company Counsel. On each Closing Date, there shall have been furnished to you, as Underwriter, the opinion of each of (i) Gibson, Dunn & Crutcher LLP, corporate counsel for the Company, (ii) Casimir Jones S.C., intellectual property counsel for the Company, (iii) Wilson, Sonsini, Goodrich & Rosati, P.C., intellectual property counsel for the Company, and (iv) Fish & Richardson P.C., intellectual property counsel for the Company, each dated such Closing Date and addressed to you, in each case in form and substance reasonably satisfactory to you.

(f) Opinion of Underwriter's Counsel. On each Closing Date, there shall have been furnished to you, as Underwriter, such opinion or opinions from Latham & Watkins LLP, counsel for the Underwriter, dated such Closing Date and addressed to you, with respect to the formation of the Company, the validity of the Securities and the Warrant Shares, the Registration Statement, the Time of Sale Disclosure Package or the Prospectus and other related matters as you reasonably may request, and such counsel shall have received such papers and information as they request to enable them to pass upon such matters.

(g) Comfort Letter. On the date hereof, on the effective date of any post-effective amendment to the Registration Statement filed after the date hereof and on each Closing Date you, as Underwriter, shall have received an accountant's "comfort" letter of KPMG LLP, dated such date and addressed to you, in form and substance reasonably satisfactory to you.

(h) Officers' Certificate. On each Closing Date, there shall have been furnished to you, as Underwriter, a certificate, dated such Closing Date and addressed to you, signed by the chief executive officer and by the chief financial officer of the Company, to the effect that:

(i) The representations and warranties of the Company in this Agreement are true and correct as if made at and as of such Closing Date, and the Company has complied with all the agreements and satisfied all the conditions on its part to be performed or satisfied at or prior to such Closing Date; and

(ii) No stop order or other order suspending the effectiveness of the Registration Statement or any part thereof or any amendment thereof or the qualification of the Securities or the Warrant Shares for offering or sale, nor suspending or preventing the use of the Time of Sale Disclosure Package, the Prospectus or any issuer free writing prospectus, has been issued, and no proceeding for that purpose has been instituted or, to the best of their knowledge, is contemplated by the Commission or any state or regulatory body.

(i) Lock-Up Agreement. The Underwriter shall have received all of the Lock-Up Agreements referenced in Section 4 and the Lock-Up Agreements shall remain in full force and effect.

(j) Other Documents. The Company shall have furnished to you and counsel for the Underwriter such additional documents, certificates and evidence as you or they may have reasonably requested.

(k) FINRA No Objections. FINRA shall have raised no objection to the fairness and reasonableness of the underwriting terms and arrangements.

(l) Exchange Listing. The Securities (and the Warrant Shares underlying the Warrants) to be delivered on such Closing Date will have been approved for listing on the Nasdaq Global Market, subject to official notice of issuance.

(m) Warrant Shares. The Company shall, at all times while any Warrants are outstanding, reserve and keep available out of the aggregate of its authorized but unissued and otherwise unreserved shares of Common Stock, solely for the purpose of enabling it to issue Warrant Shares upon exercise of such Warrants, the number of Warrant Shares that are issuable and deliverable upon the exercise of the then-outstanding Warrants from time to time.

All such opinions, certificates, letters and other documents will be in compliance with the provisions hereof only if they are reasonably satisfactory in form and substance to you and counsel for the Underwriter. The Company will furnish you with such conformed copies of such opinions, certificates, letters and other documents as you shall reasonably request.

## **6. Indemnification and Contribution.**

(a) Indemnification by the Company. The Company agrees to indemnify and hold harmless the Underwriter, its affiliates, directors and officers and each person, if any, who controls the Underwriter within the meaning of Section 15 of the Act or Section 20 of the Exchange Act, from and against any losses, claims, damages or liabilities, joint or several, to which the Underwriter may become subject, under the Act or otherwise (including in settlement of any litigation if such settlement is effected with the written consent of the Company), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon: (i) an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, including the 430B Information and any other information deemed to be a part of the Registration Statement at the time of effectiveness and at any subsequent time pursuant to the Rules and Regulations, if applicable, any Preliminary Prospectus, the Time of Sale Disclosure Package, the Prospectus, or any amendment or supplement thereto, any issuer free writing prospectus, any issuer information that the Company has filed or is required to file pursuant to Rule 433(d) of the Rules and Regulations, or any Written Testing-the-Waters Communication, or any road show as defined in Rule 433(h) under the Act (a “**road show**”), (ii) the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, or (iii) any investigation or proceeding by any governmental authority, commenced or threatened (whether or not the Underwriter is a target of or party to such investigation or proceeding); and the Company will reimburse the Underwriter for any legal or other expenses reasonably incurred by it in connection with investigating or defending against such loss, claim, damage, liability or action as such expenses are incurred; *provided, however*, that the Company will not be liable in any such case to the extent that any such loss, claim, damage, liability or action arises out of or is based upon an

untrue statement or alleged untrue statement or omission or alleged omission made in reliance upon and in conformity with written information furnished to the Company by you specifically for use in the preparation thereof; it being understood and agreed that the only information furnished by the Underwriter consists of the information described as such in Section 6(e).

(b) Indemnification by the Underwriter. The Underwriter will indemnify and hold harmless the Company, its affiliates, directors and officers and each person, if any, who controls the Company within the meaning of Section 15 of the Act and Section 20 of the Exchange Act, from and against any losses, claims, damages or liabilities to which the Company may become subject, under the Act or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of such Underwriter), insofar as such losses, claims, damages or liabilities (or actions in respect thereof) (i) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, any Preliminary Prospectus, the Time of Sale Disclosure Package, the Prospectus, or any amendment or supplement thereto, any issuer free writing prospectus, any issuer information that the Company has filed or is required to file pursuant to Rule 433(d) of the Rules and Regulations, or any Written Testing-the-Waters Communication, or any road show, or (ii) arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in reliance upon or in conformity with written information furnished to the Company by you specifically for use in the preparation thereof (it being understood and agreed that the only information furnished by the Underwriter consists of the information described as such in Section 6(e)), and will reimburse the Company for any legal or other expenses reasonably incurred by the Company in connection with investigating or defending against any such loss, claim, damage, liability or action as such expenses are incurred.

(c) Notice and Procedures. Promptly after receipt by an indemnified party under subsection (a) or (b) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the omission to so notify the indemnifying party shall not relieve the indemnifying party from any liability that it may have to any indemnified party except to the extent such indemnifying party has been materially prejudiced by such failure (through the forfeiture of substantive rights or defenses). In case any such action shall be brought against any indemnified party, and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate in, and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel reasonably satisfactory to such indemnified party, and after notice from the indemnifying party to such indemnified party of the indemnifying party's election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof other than reasonable costs of investigation; provided, however, that if, in the sole judgment of the Underwriter, it is advisable for the Underwriter to be represented by separate counsel, the Underwriter shall have the right to employ a single counsel (in addition to local counsel) to represent the Underwriter who may be subject to liability arising from any claim in respect of which indemnity may be sought by the Underwriter under

subsection (a) of this Section 6, in which event the reasonable fees and expenses of such separate counsel shall be borne by the indemnifying party or parties and reimbursed to the Underwriter as incurred. An indemnifying party shall not be obligated under any settlement agreement relating to any action under this Section 6 to which it has not agreed in writing. In addition, no indemnifying party shall, without the prior written consent of the indemnified party (which consent shall not be unreasonably withheld or delayed), effect any settlement of any pending or threatened proceeding unless such settlement includes an unconditional release of such indemnified party for all liability on claims that are the subject matter of such proceeding and does not include a statement as to, or an admission of, fault, culpability or a failure to act by or on behalf of an indemnified party. Notwithstanding the foregoing, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel pursuant to this Section 6(c), such indemnifying party agrees that it shall be liable for any settlement effected without its written consent if (i) such settlement is entered into more than 45 days after receipt by such indemnifying party of the aforesaid request and (ii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

(d) *Contribution; Limitations on Liability; Non-Exclusive Remedy.* If the indemnification provided for in this Section 6 is unavailable or insufficient to hold harmless an indemnified party under subsection (a) or (b) above, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of the losses, claims, damages or liabilities referred to in subsection (a) or (b) above, (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriter on the other from the offering of the Securities or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company on the one hand and the Underwriter on the other in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriter on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriter, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriter and the parties' relevant intent, knowledge, access to information and opportunity to correct or prevent such untrue statement or omission. The Company and the Underwriter agree that it would not be just and equitable if contributions pursuant to this subsection (d) were to be determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to in the first sentence of this subsection (d). The amount paid by an indemnified party as a result of the losses, claims, damages or liabilities referred to in the first sentence of this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending against any action or claim which is the subject of this subsection (d). Notwithstanding the provisions of this subsection (d), the Underwriter shall not be required to contribute any amount in excess of the amount by which the total underwriting discounts and commissions received by the Underwriter with respect to the Securities purchased by it hereunder exceeds the amount of any

damages that such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The remedies provided for in this Section 6 are not exclusive and shall not limit any rights or remedies that might otherwise be available to any indemnified party at law or in equity.

(e) *Information Provided by the Underwriter.* The Underwriter confirms and the Company acknowledges that the statements with respect to the public offering of the Securities and the Warrant Shares by the Underwriter set forth in the first sentence of the third paragraph, the first paragraph under the heading "Commissions and Expenses," the first sentence of the first paragraph and the first sentence of the sixth paragraph under the heading "Stabilization" and the first sentence under the heading "Electronic Distribution" under the caption "Underwriting" in the Time of Sale Disclosure Package and in the Prospectus are correct and constitute the only information concerning the Underwriter furnished in writing to the Company by or on behalf of the Underwriter specifically for inclusion in the Registration Statement, any Preliminary Prospectus, the Time of Sale Disclosure Package, the Prospectus or any issuer free writing prospectus.

**7. Representations and Agreements to Survive Delivery.** All representations, warranties, and agreements of the Company herein or in certificates delivered pursuant hereto, and the agreements of the Underwriter and the Company contained in Section 6 hereof, shall remain operative and in full force and effect regardless of any investigation made by or on behalf of the Underwriter or any controlling person thereof, or the Company or any of its officers, directors or controlling persons, and shall survive delivery of, and payment for, the Securities to and by the Underwriter hereunder and any termination of this Agreement.

#### **8. Termination.**

(a) *Right to Terminate.* You, as Underwriter, shall have the right to terminate this Agreement by giving notice to the Company as hereinafter specified at any time at or prior to the First Closing Date, and the option referred to in Section 3(b), if exercised, may be cancelled at any time prior to the Second Closing Date, if (i) the Company shall have failed, refused or been unable, at or prior to such Closing Date, to perform any agreement on its part to be performed hereunder, (ii) any other condition of the Underwriter's obligations hereunder is not fulfilled, (iii) trading in the Company's Common Stock shall have been suspended by the Commission or the Nasdaq Global Market or trading in securities generally on the Nasdaq Stock Market or New York Stock Exchange shall have been wholly suspended, (iv) minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required, on the Nasdaq Stock Market or New York Stock Exchange, by such Exchange, by FINRA or by order of the Commission or any other Governmental Authority, (v) a banking moratorium shall have been declared by federal or state authorities or a material disruption in commercial banking or securities settlement or clearance services in the United States or a moratorium on foreign exchange trading, (vi) there shall have occurred any attack on, outbreak or escalation of hostilities or act of terrorism involving the United States, any declaration by the United States of a national emergency or war, any change in financial markets, any substantial change or development involving a prospective substantial change in United States or international political, financial or economic conditions, or any

other calamity or crisis that, in your judgment, is material and adverse and makes it impractical or inadvisable to proceed with the completion of the sale of and payment for the Securities, (vii) the Company shall have sustained a material loss by fire, flood, accident, hurricane, earthquake, theft, sabotage or other calamity or malicious act which, whether or not such loss shall have been insured, will, in the Underwriter's opinion, make it inadvisable to proceed with the delivery of the Securities, (viii) the Company is in material breach of any of its representations, warranties or covenants hereunder, or (ix) if the Underwriter shall have become aware after the date hereof of such a material adverse change in the conditions or prospects of the Company, or such adverse material change in general market conditions as in the Underwriter's judgment would make it impracticable to proceed with the offering, sale and/or delivery of the Securities or to enforce contracts made by the Underwriter for the sale of the Securities. Any such termination shall be without liability of any party to any other party except that the provisions of Section 4(a)(vii) and Section 6 hereof shall at all times be effective and shall survive such termination.

(b) Notice of Termination. If you elect to terminate this Agreement as provided in this Section, the Company shall be notified promptly by you by telephone, confirmed by letter.

#### **9. Default by the Company.**

(a) Default by the Company. If the Company shall fail at the First Closing Date to sell and deliver the number of Securities which it is obligated to sell hereunder, then this Agreement shall terminate without any liability on the part of the Underwriter or, except as provided in Section 4(a)(vii) and Section 6 hereof, any non-defaulting party.

(b) No Relief from Liability. No action taken pursuant to this Section shall relieve the Company from liability, if any, in respect of such default.

10. **Notices**. Except as otherwise provided herein, all communications hereunder shall be in writing and, (a) if to the Underwriter, shall be mailed via overnight delivery service or hand delivered via courier to H.C. Wainwright & Co., LLC, 430 Park Avenue, 4th Floor, New York, New York 10022, to the attention of Equity Capital Markets and separately, General Counsel; and (b) if to the Company, shall be mailed or delivered to it at 4330 La Jolla Village Drive, San Diego, California 92122, to the attention of Clarke Neumann, General Counsel, or in each case to such other address as the person to be notified may have requested in writing. Any party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose.

11. **Persons Entitled to Benefit of Agreement**. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns and the controlling persons, officers and directors referred to in Section 6. Nothing in this Agreement is intended or shall be construed to give to any other person, firm or corporation any legal or equitable remedy or claim under or in respect of this Agreement or any provision herein contained. The term "successors and assigns" as herein used shall not include any purchaser, as such purchaser, of any of the Securities or the Warrant Shares from the Underwriter.

**12. Absence of Fiduciary Relationship.** The Company acknowledges and agrees that: (a) the Underwriter has been retained solely to act as an underwriter in connection with the sale of the Securities and that no fiduciary, advisory or agency relationship between the Company and the Underwriter has been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether the Underwriter has advised or is advising the Company on other matters; (b) the price and other terms of the Securities and the Warrant Shares set forth in this Agreement were established by the Company following discussions and arms-length negotiations with the Underwriter and do not constitute a recommendation, investment advice, or solicitation of any action by the Underwriter, and the Company is capable of evaluating and understanding and understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement; (c) it has been advised that the Underwriter and its affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and that the Underwriter has no obligation to disclose such interest and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; (d) it has been advised that the Underwriter is acting, in respect of the transactions contemplated by this Agreement, solely for the benefit of the Underwriter and the other Underwriter, and not on behalf of the Company; (e) none of the activities of the Underwriter in connection with the transactions contemplated herein constitutes a recommendation, investment advice or solicitation of any action by the Underwriter with respect to any entity or natural person; and (f) it waives to the fullest extent permitted by law, any claims it may have against the Underwriter for breach of fiduciary duty or alleged breach of fiduciary duty in respect of any of the transactions contemplated by this Agreement and agrees that the Underwriter shall have no liability (whether direct or indirect) to the Company in respect of such a fiduciary duty claim on behalf of or in right of the Company, including stockholders, employees or creditors of the Company.

**13. Governing Law; Waiver of Jury Trial.** This Agreement shall be governed by and construed in accordance with the laws of the State of New York. The Company (on its behalf and, to the extent permitted by applicable law, on behalf of its stockholders and affiliates) and each of the Underwriter hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

**14. Recognition of the U.S. Special Resolution Regimes.**

(a) In the event that the Underwriter is a Covered Entity and becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Underwriter of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that the Underwriter is a Covered Entity or a BHC Act Affiliate of the Underwriter becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Underwriter are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

As used in this Section 14:

“**BHC Act Affiliate**” has the meaning assigned to the term “affiliate” in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k).

“**Covered Entity**” means any of the following:

- (i) a “covered entity” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b);
- (ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or
- (iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b).

“**Default Right**” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

“**U.S. Special Resolution Regime**” means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

15. **Counterparts.** This Agreement may be executed in one or more counterparts and, if executed in more than one counterpart, the executed counterparts shall each be deemed to be an original and all such counterparts shall together constitute one and the same instrument. Counterparts may be delivered via facsimile or electronic mail (including, without limitation, “pdf”, “tif” or “jpg”) and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

16. **General Provisions.** This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof, except for that certain letter agreement, dated August 3, 2021, between the Company and the Underwriter. This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit. The Section headings herein are for the convenience of the parties only and shall not affect the construction or interpretation of this Agreement. The invalidity or unenforceability of any Section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other Section, paragraph or provision hereof. If any Section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

**[Signature Page Follows]**

Please sign and return to the Company the enclosed duplicates of this Agreement whereupon this Agreement will become a binding agreement between the Company and the Underwriter in accordance with its terms.

Very truly yours,

**Progenity, Inc.**

By: /s/ Harry Stylli

\_\_\_\_\_  
Name: Harry Stylli

Title: Chief Executive Officer

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Confirmed as of the date first  
above mentioned

H.C. WAINWRIGHT & CO., LLC

By: /s/ Edward D. Silvera

Name: Edward D. Silvera

Title: Chief Operating Officer

**SCHEDULE I**

<u>Underwriter</u>	<u>Number of Firm Shares and Firm Warrants (1)</u>
H.C. Wainwright & Co., LLC	40,000,000
Total	<u>40,000,000</u>

- (1) The Underwriter may purchase up to an additional 6,000,000 Option Shares and/or Option Warrants to purchase 6,000,000 shares of Common Stock, to the extent the option described in Section 3(b) of the Agreement is exercised, in the proportions and in the manner described in the Agreement.

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**SCHEDULE II**

**Subsidiaries of the Company**

1. Avero Laboratory Holdings LLC
2. SPX3, Inc.
3. Progenity Holding Company, Inc.
4. Molecular Diagnostic Health Sciences, LLC
5. Progenity UK Limited
6. Progenity Pty Ltd

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**SCHEDULE III**

**List of Individuals and Entities Executing Lock-Up Agreements**

**Officers**

Harry Stylli, Ph.D.  
Eric d'Esparbes  
Damon Silvestry  
Matthew Cooper, Ph.D.  
Clarke Neumann, J.D.  
Hutan Hashemi, J.D.

**Non-Employee Directors**

Jeffrey D. Alter  
Jeffrey A. Ferrell  
Brian L. Kotzin, M.D.  
Samuel R. Nussbaum, M.D.  
Lynne Powell  
Surbhi Sarna

**Significant Stockholders**

Athyrium Opportunities III Acquisition 2 LP  
Athyrium Opportunities III Co-Invest 1 LP  
Athyrium Opportunities Fund (A) LP  
Athyrium Opportunities 2020 LP  
Athyrium Opportunities Fund (B) LP

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**SCHEDULE IV**

**Certain Permitted Free Writing Prospectuses**

None.

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**SCHEDULE V**

**Pricing Information**

Number of Firm Shares Being Offered: 40,000,000

Number of Firm Warrants Being Offered: 40,000,000

Number of Option Shares Being Offered: 6,000,000

Number of Option Warrants Being Offered: 6,000,000

Public Offering Price Per Share: \$0.99

Public Offering Price Per Warrant: \$0.01

Exercise Price Per Warrant: \$1.00

Underwriting Discounts and Commissions per Firm Share: 6.0%

Underwriting Discounts and Commissions per Firm Warrant: 6.0%

Underwriting Discounts and Commissions per Option Share: 6.0%

Underwriting Discounts and Commissions per Option Warrant: 6.0%

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**EXHIBIT A**

**Form of Warrant**

A-1

EXHIBIT B

Form of Lock-Up Agreement

August 19, 2021

H.C. Wainwright & Co., LLC  
430 Park Avenue, 4<sup>th</sup> Floor  
New York, New York 10022

Dear Sirs and Madams:

As an inducement to H.C. Wainwright & Co., LLC (the “**Underwriter**”) to execute an underwriting agreement (the “**Underwriting Agreement**”) providing for a public offering (the “**Offering**”) of common stock, par value \$0.001 (the “**Common Stock**”) and warrants to purchase shares of Common Stock (the “**Warrants**”), of Progenity, Inc. and any successor (by merger or otherwise) thereto (the “**Company**”), the undersigned hereby agrees that without, in each case, the prior written consent of the Underwriter during the period specified in the second succeeding paragraph (the “**Lock-Up Period**”), the undersigned will not: (1) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, make any short sale or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into, exercisable or exchangeable for or that represent the right to receive Common Stock (including without limitation, Common Stock which may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations of the Securities and Exchange Commission and securities which may be issued upon exercise of a stock option or warrant) whether now owned or hereafter acquired (the “**Undersigned’s Securities**”); (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Undersigned’s Securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise; (3) make any demand for or exercise any right with respect to, the registration of any Common Stock or any security convertible into or exercisable or exchangeable for Common Stock; or (4) publicly disclose the intention to do any of the foregoing.

The undersigned agrees that the foregoing restrictions preclude the undersigned from engaging in any hedging or other transaction which is designed to or which reasonably could be expected to lead to or result in a sale or disposition of the Undersigned’s Securities even if such of the Undersigned’s Securities would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include without limitation any short sale or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to any of the Undersigned’s Securities or with respect to any security that includes, relates to, or derives any significant part of its value from the Undersigned’s Securities.

The Lock-Up Period will commence on the date of this Agreement and continue and include the date 90 days after the date of the final prospectus used to sell Common Stock and Warrants in the Offering pursuant to the Underwriting Agreement, to which you are or expect to become a party.

Notwithstanding the foregoing, the undersigned may transfer the Undersigned's Securities (i) as a *bona fide* gift or gifts, (ii) to any immediate family member or other dependent of the undersigned, (iii) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned, (iv) if the undersigned is a corporation, partnership, limited liability company, trust or other business entity (1) transfers to another corporation, partnership, limited liability company, trust or other business entity that is a direct or indirect affiliate (as defined in Rule 405 promulgated under the Securities Act of 1933, as amended) of the undersigned or (2) distributions of shares of Common Stock or any security convertible into or exercisable for Common Stock to limited partners, limited liability company members or equityholders of the undersigned, (v) if the undersigned is a trust, transfers to the beneficiary of such trust, (vi) transfers by testate succession or intestate succession, (vii) by operation of law, including pursuant to an order of a court (including a domestic order or a negotiated divorce settlement) or regulatory agency, or to comply with any regulations related to the undersigned's ownership of the Undersigned's Securities, (viii) to a nominee or custodian of a person or entity to whom a disposition or transfer would be permissible under clauses (i) through (vii) above, (ix) pursuant to a bona fide third party tender offer, merger, consolidation or other similar transaction made to all holders of Common Stock involving a Change of Control of the Company (including voting in favor of any such transaction or taking any other action in connection with such transaction); *provided*, that in the event that the tender offer, merger, consolidation or other such transaction is not completed, the Undersigned's Securities shall remain subject to the restrictions contained in this Agreement; and *provided further*, that "Change of Control" shall mean the transfer, in one transaction or in a series of related transactions, to a person or group of affiliated persons (other than the Underwriter pursuant to the Offering) of the Company's voting securities if, after such transfer, such person or group of affiliated persons would hold more than 50% of the outstanding voting securities of the Company (or the surviving entity), or (x) pursuant to the Underwriting Agreement; *provided*, that in the case of clauses (i) through (viii), (A) such transfer shall not involve a disposition for value, (B) the transferee agrees in writing with the Underwriter to be bound by the terms of this Agreement, and (C) no filing by any party under Section 16(a) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), shall be required or shall be made voluntarily in connection with such transfer during the Lock-Up Period. For purposes of this Agreement, "immediate family" shall mean any relationship by blood, marriage, domestic partnership or adoption, not more remote than first cousin.

In addition, the foregoing restrictions shall not apply to (i) the exercise of stock options granted pursuant to the Company's equity incentive plans; *provided*, that such restrictions shall apply to any of the Undersigned's Securities issued upon such exercise, or (ii) the establishment of any contract, instruction or plan (a "**Plan**") that satisfies all of the requirements of Rule 10b5-1(c)(1)(i)(B) under the Exchange Act; *provided* that no sales of the Undersigned's Securities shall be made pursuant to such a Plan prior to the expiration of the Lock-Up Period, and such a Plan may only be established if no public announcement of the establishment or existence thereof and no filing with the Securities and Exchange Commission or other regulatory authority in respect thereof or transactions thereunder or contemplated thereby, by the undersigned, the Company or any other person, shall be required, and no such announcement or filing is made voluntarily, by the undersigned, the Company or any other person, prior to the expiration of the Lock-Up Period.

In furtherance of the foregoing, the Company and its transfer agent and registrar are hereby authorized to decline to make any transfer of shares of Common Stock if such transfer would constitute a violation or breach of this Agreement.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Agreement and that upon request, the undersigned will execute any additional documents necessary to ensure the validity or enforcement of this Agreement. All authority herein conferred or agreed to be conferred and any obligations of the undersigned shall be binding upon the successors, assigns, heirs or personal representatives of the undersigned.

The undersigned acknowledges and agrees that the Underwriter has not provided any recommendation or investment advice nor has the Underwriter solicited any action from the undersigned with respect to the Offering of the shares of Common Stock or the Warrants and the undersigned has consulted its own legal, accounting, financial, regulatory and tax advisors to the extent deemed appropriate.

The undersigned understands that this Agreement shall be automatically terminated and be of no further force and effect, and the undersigned shall be released from all obligations under this Agreement if (i) the Company notifies the Underwriter that it does not intend to proceed with the Offering, (ii) the Underwriting Agreement does not become effective, or if the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Common Stock and the Warrants to be sold thereunder, (iii) the registration statement filed with the Securities and Exchange Commission with respect to the Offering is withdrawn, or (iv) the Offering is not completed by August 31, 2021. The undersigned understands that the Underwriter is entering into the Underwriting Agreement and proceeding with the Offering in reliance upon this Agreement.

This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York.

Very truly yours,

\_\_\_\_\_

Printed Name of Holder

By: \_\_\_\_\_

Signature

\_\_\_\_\_

Printed Name of Person Signing

(and indicate capacity of person signing if signing as custodian, trustee, or on behalf of an entity)

## COMMON STOCK PURCHASE WARRANT

## PROGENITY, INC.

Warrant Shares: \_\_\_\_\_

Issue Date: \_\_\_\_\_, 2021

Initial Exercise Date: \_\_\_\_\_, 2021

THIS COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, \_\_\_\_\_ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date set forth above (the "Initial Exercise Date") and on or prior to 5:00 p.m. (New York City time) on \_\_\_\_\_<sup>1</sup> (the "Termination Date") but not thereafter, to subscribe for and purchase from PROGENITY, INC., a Delaware corporation (the "Company"), up to \_\_\_\_\_ shares (as subject to adjustment hereunder, the "Warrant Shares") of the Company's Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

"Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

"Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. ("Bloomberg") (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

"Board of Directors" means the board of directors of the Company.

<sup>1</sup> The date that is the five (5) year anniversary of the Initial Exercise Date, provided that, if such date is not a Trading Day, insert the immediately following Trading Day.

“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.

“Commission” means the United States Securities and Exchange Commission.

“Common Stock” means the common stock of the Company, par value \$0.001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

“Common Stock Equivalents” means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time shares of Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Registration Statement” means the Company’s registration statement on Form S-3 (File No. 333-258301), including the prospectus supplement filed in connection with the transaction contemplated by the Underwriting Agreement.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Subsidiary” means the subsidiaries of the Company set forth on Exhibit 21.1 to the Company’s Annual Report on Form 10-K for the year ended December 31, 2020, as filed with the Commission on March 18, 2021, and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

“Trading Day” means a day on which the Common Stock is traded on a Trading Market.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange (or any successors to any of the foregoing).

“Transfer Agent” means American Stock Transfer and Trust Company, LLC, the current transfer agent of the Company, with a mailing address of 6201 15th Ave, Brooklyn, NY 11219, and any successor transfer agent of the Company.

“Underwriting Agreement” means that certain Underwriting Agreement, dated as of August 19, 2021, by and between the Company and H.C. Wainwright & Co., LLC.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on The Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“Warrants” means this Warrant and other Common Stock purchase warrants issued by the Company pursuant to the Underwriting Agreement and the Registration Statement.

## Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the “Notice of Exercise”). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a

portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Trading Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per share of Common Stock under this Warrant shall be \$1.00, subject to adjustment hereunder (the “Exercise Price”).

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to or by the Holder, then this Warrant may only be exercised, in whole or in part, at such time by means of a “cashless exercise” in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

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

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c).

d) Mechanics of Exercise.

- i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to the Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earlier of (A) the earlier of (i) two (2) Trading Days and (ii) the number of days comprising the Standard Settlement Period, in each case after the delivery to the Company of the Notice of Exercise and (B) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by the Warrant Share Delivery Date. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be

delivered at any time after the time of execution of the Underwriting Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by such Warrant Share Delivery Date.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares on a timely basis pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date (other than any such failure that is solely due to any action by the Holder with respect to such exercise), and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common

Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a 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 shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")),

would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination (including any determination as to group status pursuant to the next sentence). In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one (1) Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be [4.99%/9.99%] of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the

Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61<sup>st</sup> day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, 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 exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

c) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company (and all of its Subsidiaries, taken as a whole), directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50%

of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a “Fundamental Transaction”), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the “Alternate Consideration”) receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder’s option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, that if the Fundamental Transaction is not within the Company’s control, including not approved by the Company’s Board of Directors, Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; provided, further, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock of the Successor Entity (which Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. “Black Scholes Value” means the value of this Warrant based on the Black Scholes Option Pricing Model obtained from the “OV” function on Bloomberg determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free

interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) 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 public announcement of the applicable contemplated Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the highest VWAP during the period beginning on the Trading Day immediately preceding the announcement of the applicable contemplated Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier) and ending on the Trading Day of the Holder's request pursuant to this Section 3(d) and (D) a remaining option time equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds within five (5) Trading Days of the Holder's election (or, if later, on the effective date of the Fundamental Transaction). The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant and the other Transaction Documents in accordance with the provisions of this Section 3(d) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant and the other Transaction Documents with the same effect as if such Successor Entity had been named as the Company herein.

e) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

f) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. This Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the Issue Date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the “Warrant Register”), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting the rights of a Holder to receive Warrant Shares on a “cashless exercise,” and to receive the cash payments contemplated pursuant to Sections 2(d)(i) and 2(d)(iv), in no event will the Company be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it, and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Trading Day, then, such action may be taken or such right may be exercised on the next succeeding Trading Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, 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 Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or

appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies, notwithstanding the fact that the right to exercise this Warrant terminates on the Termination Date. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any and all notices or other communications or deliveries to be provided by the holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at 4330 La Jolla Village Drive, Suite 200, San Diego, CA 92122, Attention: Clarke Neumann, email address: [Clarke.Neumann@progenity.com](mailto:Clarke.Neumann@progenity.com), with a copy to [legaldeptcontractnotices@progenity.com](mailto:legaldeptcontractnotices@progenity.com), or such other telephone number, email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder of this Warrant, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

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*(Signature Page Follows)*

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

**PROGENITY, INC.**

By: \_\_\_\_\_  
Name:  
Title:

*[Signature Page to Warrant]*

**NOTICE OF EXERCISE**

**TO: PROGENITY, INC.**

(1) The undersigned hereby elects to purchase \_\_\_\_\_ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States; or

if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

\_\_\_\_\_

The Warrant Shares shall be delivered to the following DWAC Account Number:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

[SIGNATURE OF HOLDER]

Name of Investing Entity: \_\_\_\_\_

*Signature of Authorized Signatory of Investing Entity:* \_\_\_\_\_

Name of Authorized Signatory: \_\_\_\_\_

Title of Authorized Signatory: \_\_\_\_\_

Date: \_\_\_\_\_

ASSIGNMENT FORM

*(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to exercise the Warrant to purchase shares.)*

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: \_\_\_\_\_  
(Please Print)

Address: \_\_\_\_\_  
(Please Print)

Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Dated: \_\_\_\_\_, \_\_\_\_\_

Holder's Signature: \_\_\_\_\_

Holder's Address: \_\_\_\_\_

August 23, 2021

Progenity, Inc.  
4330 La Jolla Village Drive, Suite 200  
San Diego, CA 92122

Re: *Progenity, Inc.*  
*Registration Statement on Form S-3 (File No. 333-258301)*

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-3, File No. 333-258301, as amended (the "Registration Statement"), of Progenity, Inc., a Delaware corporation (the "Company"), filed with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), in connection with the offering by the Company of up to 46,000,000 shares of the Company's common stock, par value \$0.001 per share (the "Shares") and warrants to purchase up to an aggregate of 46,000,000 shares of Common Stock (the "Warrants," and collectively with the Shares, the "Securities").

In arriving at the opinion expressed below, we have examined originals, or copies certified or otherwise identified to our satisfaction as being true and complete copies of the originals, of specimen Common Stock certificates, form of Warrant and such other documents, corporate records, certificates of officers of the Company and of public officials and other instruments as we have deemed necessary or advisable to enable us to render the opinions set forth below. In our examination, we have assumed without independent investigation the genuineness of all signatures, the legal capacity and competency of all natural persons, the authenticity of all documents submitted to us as originals and the conformity to original documents of all documents submitted to us as copies.

Based upon the foregoing, and subject to the assumptions, exceptions, qualifications and limitations set forth herein, we are of the opinion that the Securities, when issued against payment therefor as set forth in the Registration Statement, will be validly issued, fully paid and non-assessable.

August 23, 2021

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We consent to the filing of this opinion as an exhibit to the Registration Statement, and we further consent to the use of our name under the caption “Legal Matters” in the Registration Statement and the prospectus that forms a part thereof. In giving these consents, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the Rules and Regulations of the Commission.

Very truly yours,

/s/ Gibson, Dunn & Crutcher LLP