

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): February 17, 2022

Blue Water Vaccines Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation)

001-41294

(Commission File Number)

83-2262816

(IRS Employer Identification No.)

201 E. Fifth Street, Suite 1900 Cincinnati, Ohio

(Address of principal executive offices)

45202

(Zip Code)

Registrant's telephone number, including area code: (513) 620-4101

Not Applicable

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

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

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

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

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Stock, par value \$0.00001 per share	BWV	The Nasdaq Stock Market LLC

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

Emerging growth company

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

Item 1.01 Entry into a Material Definitive Agreement.

Public Offering

On February 17, 2022, Blue Water Vaccines Inc. (“we,” “us,” “our,” or the “Company”) entered into an underwriting agreement (the “Underwriting Agreement”) with Boustead Securities, LLC, acting as representative of the underwriters (“Boustead”), pursuant to which the Company agreed to sell to the underwriters in a firm commitment underwritten public offering (the “Offering”) an aggregate of 2,222,222 shares (the “Shares”) of the Company’s common stock, par value \$0.00001 per share (the “Common Stock”) at a price of \$9.00 per share. The Offering closed on February 23, 2022. The Common Stock is listed on The Nasdaq Capital Market under the trading symbol “BWV.”

The Shares were offered by the Company pursuant to a registration statement on Form S-1, as amended (File No. 333-260137), filed with the Securities and Exchange Commission (the “Commission”), which was declared effective by the Commission on February 11, 2022 (the “Registration Statement”). The net proceeds to the Company from the Offering, after deducting the underwriting discount, the underwriters’ fees and expenses and the Company’s estimated Offering expenses, were approximately \$17.8 million.

The Underwriting Agreement contains customary representations and warranties that the parties made to, and solely for the benefit of, the other party in the context of all of the terms and conditions of that agreement and in the context of the specific relationship between the parties. The provisions of the Underwriting Agreement, including the representations and warranties contained therein, are not for the benefit of any party other than the parties to such agreements and are not intended as documents for investors and the public to obtain factual information about the current state of affairs of the parties to those documents and agreements. Rather, investors and the public should look to other disclosures contained in the Company’s filings with Commission. The Company has also agreed that it will not offer, sell, issue, agree or contract to sell or issue or grant or modify the terms of any option for the sale of any securities of the Company for a period of twelve (12) months following the closing date of the Offering, other than certain exempt issuances.

Representative’s Warrants

Pursuant to the Underwriting Agreement, the Company issued to Boustead warrants (the “Representative’s Warrants”) to purchase 111,111 shares of Common Stock. The Representative’s Warrants will be exercisable at a per share exercise price equal to \$10.35 and are exercisable at any time and from time to time, in whole or in part, during the period commencing on February 23, 2022 and terminating on February 11, 2027. The Representative’s Warrants also provide for two demand registration rights of the shares underlying the Representative’s Warrants, and unlimited “piggyback” registration rights with respect to the registration of the shares underlying the Representative’s Warrants and customary anti-dilution provisions.

The foregoing summary of the terms of the Underwriting Agreement and the Representative’s Warrants are subject to, and qualified in their entirety by reference to, copies of the Underwriting Agreement and the Representative’s Warrants that are filed as exhibits to this Current Report on Form 8-K and are incorporated herein by reference.

Item 1.02 Termination of a Material Definitive Agreement

Right of First Refusal and Co-Sale Agreement

The Company was party to a right of first refusal and co-sale agreement (the “ROFR Agreement”) pursuant to which the Company had a right to purchase (and certain other investors had the right to purchase in the case the Company did not exercise its right to purchase) shares of the Company’s capital stock which certain holders of its common stock propose to sell to other parties, subject to certain exceptions. The ROFR Agreement terminated in connection with the Offering.

Voting Agreement

The Company was party to a voting agreement (the “Voting Agreement”) under which certain holders of the Company’s capital stock have agreed as to the manner in which they will vote their shares of our capital stock on certain matters, including with respect to the election of directors. The Voting Agreement terminated in connection with the Offering.

Item 3.03 Material Modification to Rights of Security Holders.

The information set forth under Item 5.03 below is incorporated by reference in this Item 3.03.

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

Effective as of February 23, 2022, John Rice resigned as a member of the Board of Directors (the “Board”) of Blue Water Vaccines Inc. Mr. Rice’s departure from the Board was not the result of any disagreement with management or the Board.

Effective as of February 23, 2022, the Board appointed James Sapirstein to serve as a member of the Board.

James Sapirstein has over 35 years of experience leading, founding, growing, and selling healthcare companies, specifically in the pharmaceutical space. Mr. Sapirstein is currently the President and CEO of AzurRx BioPharma (Nasdaq: AZRX), where he has been since October 2019. His career began in sales at Eli Lilly, eventually rising to Director of International Marketing at Bristol Myers Squibb from July 1996 to June 2000, and later led the launch of Viread (tenofovir) at Gilead Sciences, Inc. (Nasdaq: GILD), where he served as Global Marketing Lead from June 2020 to June 2002. From November 2006 to January 2011, he served as founding CEO of Tobira Therapeutics (Nasdaq: TBRA), then a private company, and later acquired by Allergan (NYSE: AGN). Since then, he has served as CEO of Alliqua Biomedical (Nasdaq: ALQA) from September 2012 to February 2014 and CEO of Contravir Pharmaceuticals (Nasdaq: CTRV from March 2014 to October 2018. He has been part of almost two dozen drug product launches and specifically either led or has been a key member of several HIV product launches into different new classes of therapeutics at the time. Additionally, Mr. Sapirstein holds board positions on Marizyme (OTCMKTS:MRZM) (Executive Chairman) since December 2018 Enochian Biosciences (Nasdaq: ENOB) since April 2018 and Leading Biosciences since March 2016. He previously served as a director of BioNJ from February 2017 to February 2019, an association of biopharma industries in New Jersey, from February 2017 to February 2019, RespireRX (OTCBB:RSPI) from April 2014 to January 2020, NanoViricides Inc. (NYSE: NNVC) from November 2018 to January 2020 and BWAC from December 2020 until its business combination with Clarus in September 2021. He is also a Board Director for BIO, the leading Biopharma Industries Organization promoting public policy and networking in the healthcare space, where he sits on both the Health Section and Emerging Companies Section Governing Boards. Mr. Sapirstein received a B.S. in Pharmacy from Rutgers University and his MBA from Fairleigh Dickinson University. He is well qualified to serve on the Board due to his extensive network from decades in the healthcare industry.

No family relationships exist between Mr. Sapirstein and any other directors or executive officers of the Company. There are no transactions to which the Company is or was a participant and in which Mr. Sapirstein has a material interest subject to disclosure under Item 404(a) of Regulation S-K.

Item 5.03 Amendments to Articles of Incorporation or Bylaws; Change in Fiscal Year.

As previously contemplated by the disclosure in the Registration Statement, the Company took the following actions in connection with the closing of the Offering (the “Closing”) on February 23, 2022.

Conversion of Outstanding Preferred Shares

Effective upon the Closing, all of the shares of the Company’s outstanding series seed preferred stock (the “Preferred Shares”), along with all accrued dividends converted into 5,626,365 shares of Common Stock pursuant to a conversion approved by requisite holders of the series seed preferred stock.

Amendment and Restatement of Certificate of Incorporation and Bylaws

On February 23, 2022, the Company filed with the Secretary of State of the State of Delaware an amended and restated certificate of incorporation (the “A&R COI”), which became effective immediately. The Company’s board of directors and stockholders approved the A&R COI to be effective upon the Closing. The A&R COI is attached hereto as Exhibit 3.1 and is incorporated herein by reference. A description of certain provisions of the A&R COI is included in the Registration Statement in the section titled “Description of Capital Stock.”

In addition, on February 23, 2022 and in connection with the Offering, the Company adopted the Amended and Restated Bylaws (the “A&R Bylaws”). The terms of the A&R Bylaws are set forth in the Registration Statement and are incorporated herein by reference. The A&R Bylaws are attached hereto as Exhibits 3.2 and is incorporated herein by reference.

Item 8.01 Other Events.

On February 17, 2022, the Company issued a press release announcing the pricing of the Offering. A copy of the press release is filed as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated by reference herein.

On February 23, 2022, the Company issued a press release announcing the closing of the Offering. A copy of the press release is filed as Exhibit 99.2 to this Current Report on Form 8-K and is incorporated by reference herein.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit Number	Description of Exhibit
1.1	Underwriting Agreement
3.1	Amended and Restated Certificate of Incorporation
3.2	Amended and Restated Bylaws
4.1	Representative’s Warrant
99.1	Press Release, dated February 17, 2022
99.2	Press Release, dated February 23, 2022

SIGNATURE

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

Date: February 24, 2022

Blue Water Vaccines Inc.

/s/ Joseph Hernandez

Joseph Hernandez
Chief Executive Officer

BLUE WATER VACCINES, INC.

UNDERWRITING AGREEMENT

February 17, 2022

Boustead Securities, LLC
6 Venture, Suite 325
Irvine, CA 92618

As Representative of the Underwriters
named on Schedule I hereto

Ladies and Gentlemen:

The undersigned, Blue Water Vaccines, Inc., a Delaware corporation (the “**Company**”), hereby confirms its agreement (this “**Agreement**”) to issue and sell to the underwriter or underwriters, as the case may be, named in Schedule I hereto (each, an “**Underwriter**” and, collectively, the “**Underwriters**”), for whom Boustead Securities, LLC is acting as representative (in such capacity, the “**Representative**”), an aggregate of 2,222,222 shares (the “**Shares**”) of common stock of the Company, par value \$0.0001 per share (the “**Common Stock**”) The offering and sale of the Shares contemplated by this Agreement is referred to herein as the “**Offering**.”

1. Securities.

(a) Purchase of Firm Shares. On the basis of the representations and warranties herein contained, but subject to the terms and conditions herein set forth, the Company agrees to issue and sell, severally and not jointly, to the several Underwriters, an aggregate of 2,222,222 Shares at a purchase price per Share of \$8.28, which represents an 8% discount to the public offering price per Share.

(b) The Underwriters, severally and not jointly, agree to purchase from the Company the number of Shares set forth opposite their respective names on Schedule I attached hereto and made a part hereof.

(c) Payment and Delivery. Delivery and payment for the Shares shall be made at 10:00 a.m., New York time, on the second Business Day following the effective date (the “**Effective Date**”) of the Registration Statement (as hereinafter defined) (or the third Business Day following the Effective Date, if the Registration Statement is declared effective after 4:30 p.m. New York time) or at such earlier time as shall be agreed upon by the Representative and the Company at the offices of the Representative or at such other place as shall be agreed upon by the Representative and the Company. The hour and date of delivery and payment for the Shares is called the “**Closing Date**.” The closing of the payment of the purchase price for, and delivery of certificates representing, the Shares is referred to herein as the “**Closing**.” Payment for the Shares shall be made on the Closing Date by wire transfer in Federal (same day) funds upon delivery to you of certificates (in form and substance satisfactory to the Underwriters) representing the Shares (or through the full fast transfer facilities of the Depository Trust Company (the “**DTC**”) for the account of the Underwriters. The Shares shall be registered in such name or names and in such authorized denominations as the Representative may request in writing at least one Business Day prior to the Closing Date. The Company will permit the Representative to examine and package the Shares for delivery, at least one Business Day prior to the Closing Date. The Company shall not be obligated to sell or deliver the Shares except upon tender of payment by the Representative for all the Shares.

(d) Representative’s Warrants. The Company hereby agrees to issue to the Representative (and/or its designees) on the Closing Date, Warrants to purchase 111,111 shares of Common Stock (the “**Representative’s Warrants**”), representing an aggregate of 5% of the number of shares of Common Stock issued to investors in the Offering. The Representative’s Warrants shall be exercisable, in whole or in part, commencing 180 days from the Effective Date and expiring on the five-year anniversary of the Effective Date at an initial exercise price of \$10.35 per shares of Common Stock, which is equal to one hundred and fifteen percent (115%) of the Offering price of a Share. The Representative’s Warrants and the shares of Common Stock issuable upon exercise of the Representative’s Warrants are hereinafter referred to collectively as the “**Representative’s Securities**,” and together with the Shares, the “**Securities**.” The form of the Representative’s Warrant is attached hereto as Annex V hereto.

2. Representations and Warranties of the Company. The Company represents, warrants and covenants to, and agrees with, each of the Underwriters that, as of the date hereof and as of the Closing Date:

(a) The Company has prepared and filed with the Securities and Exchange Commission (the “**Commission**”) a registration statement on Form S-1 (Registration No. 333-260137), and amendments thereto, and related preliminary prospectuses for the registration under the Securities Act of 1933, as amended (the “**Securities Act**”), of the Securities which registration statement, as so amended (including post-effective amendments, if any), has been declared effective by the Commission and copies of which have heretofore been delivered to the Underwriters. The registration statement, as amended at the time it became effective, including the prospectus, financial statements, schedules, exhibits and other information (if any) deemed to be part of the registration statement at the time of effectiveness pursuant to Rule 430A under the Securities Act, is hereinafter referred to as the “**Registration Statement**.” If the Company has filed or is required pursuant to the terms hereof to file a registration statement pursuant to Rule 462(b) under the Securities Act registering additional Securities (a “**Rule 462(b) Registration Statement**”), then, unless otherwise specified, any reference herein to the term “**Registration Statement**” shall be deemed to include such Rule 462(b) Registration Statement. Other than a Rule 462(b) Registration Statement, which, if filed, becomes effective upon filing, no other document with respect to the Registration Statement has heretofore been filed with the Commission. All of the Securities have been registered under the Securities Act pursuant to the Registration Statement or, if any Rule 462(b) Registration Statement is filed, will be duly registered under the Securities Act with the filing of such Rule 462(b) Registration Statement. The Company has responded to all requests of the Commission for additional or supplemental information. Based on communications from the Commission, no stop order suspending the effectiveness of either the Registration Statement or the Rule 462(b) Registration Statement, if any, has been issued and no proceeding for that purpose has been initiated or, to the Company’s knowledge, threatened by the Commission. The Company, if required by the Securities Act and the rules and regulations of the Commission (the “**Rules and Regulations**”), proposes to file the Prospectus with the Commission pursuant to Rule 424(b) under the Securities Act (“**Rule 424(b)**”). The prospectus, in the form in which it is to be filed with the Commission pursuant to Rule 424(b), or, if the prospectus is not to be filed with the Commission pursuant to Rule 424(b), the prospectus in the form included as part of the Registration Statement at the time the Registration Statement became effective, is hereinafter referred to as the “**Prospectus**,” except that if any revised prospectus or prospectus supplement shall be provided to the Underwriters by the Company for use in connection with the Offering which differs from the Prospectus (whether or not such revised prospectus or prospectus supplement is required to be filed by the Company pursuant to Rule 424(b)), the term “**Prospectus**” shall also refer to such revised prospectus or prospectus supplement, as the case may be, from and after the time it is first provided to the Underwriters for such use. Any preliminary prospectus or prospectus subject to completion included in the Registration Statement or filed with the Commission pursuant to Rule 424 under the Securities Act is hereafter called a “**Preliminary Prospectus**.” Any reference herein to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include the exhibits incorporated by reference therein pursuant to the Rules and Regulations on or before the Effective Date of the Registration Statement, the date of such Preliminary Prospectus or the date of the Prospectus, as the case may be. Any reference herein to the terms “amend”, “amendment” or “supplement” with respect to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include: (i) the filing of any document under the Securities Exchange Act of 1934, as amended, and together with the Rules and Regulations promulgated thereunder (the “**Exchange Act**”) after the Effective Date, the date of such Preliminary Prospectus or the date of the Prospectus, as the case may be, which is incorporated therein by reference, and (ii) any such document so filed. All references in this Agreement to the Registration Statement, the Rule 462(b) Registration Statement, a Preliminary Prospectus and the Prospectus, or any amendments or supplements to any of the foregoing, shall be deemed to include any copy thereof filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval System (“**EDGAR**”). The Prospectus delivered to the Underwriters for use in connection with the Offering was or will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T promulgated by the Commission.

(b) At the time of the effectiveness of the Registration Statement or any Rule 462(b) Registration Statement or the effectiveness of any post-effective amendment to the Registration Statement, when the Prospectus is first filed with the Commission pursuant to Rule 424(b), when any supplement to or amendment of the Prospectus is filed with the Commission, when any document filed under the Exchange Act was or is filed, at all other subsequent times until the completion of the public offer and sale of the Securities, and at the Closing Date, if any, the Registration Statement and the Prospectus and any amendments thereof and supplements or exhibits thereto complied or will comply in all material respects with the applicable provisions of the Securities Act, the Exchange Act and the Rules and Regulations, and did not and will not, as of the date of such amendment or supplement, contain an untrue statement of a material fact and did not and will not, as of the date of such amendment or supplement, omit to state any material fact required to be stated therein or necessary in order to make the statements therein: (i) in the case of the Registration Statement, not misleading, and (ii) in the case of the Prospectus, in light of the circumstances under which they were made as of its date, not misleading. When any Preliminary Prospectus was first filed with the Commission (whether filed as part of the registration statement for the registration of the Securities or any amendment thereto or pursuant to Rule 424(a) under the Securities Act) and when any amendment thereof or supplement thereto was first filed with the Commission, such Preliminary Prospectus and any amendments thereof and supplements thereto complied in all material respects with the applicable provisions of the Securities Act, the Exchange Act and the Rules and Regulations and did not contain an untrue statement of a material fact and did not omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. No representation and warranty is made in this subsection (b), however, with respect to any information contained in or omitted from the Registration Statement or the Prospectus or any related Preliminary Prospectus or any amendment thereof or supplement thereto in reliance upon and in conformity with information furnished in writing to the Company by or on behalf of any Underwriter through the Representative specifically for use therein. The parties acknowledge and agree that such information provided by or on behalf of any Underwriter consists solely of: the statements set forth in the “Underwriting” section of the Prospectus only insofar as such statements relate to the names and corresponding share amounts set forth in the table of Underwriters, the amount of selling concession and re-allowance and related activities that may be undertaken by the Underwriters and the paragraph relating to stabilization by the Underwriters (the “**Underwriters’ Information**”).

(c) Neither: (i) any Issuer-Represented General Free Writing Prospectus(es) (as defined below) issued at or prior to the Applicable Time (as defined below) and the Statutory Prospectus (as defined below), all considered together (collectively, the “**General Disclosure Package**”), nor (ii) any individual Issuer-Represented Limited-Use Free Writing Prospectus(es) (as defined below) when considered together with the General Disclosure Package, includes or included as of the Applicable Time any untrue statement of a material fact or omits or omitted as of the Applicable Time to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The preceding sentence does not apply to statements in or omissions from any Statutory Prospectus included in the Registration Statement, the General Disclosure Package or any Issuer-Represented Limited-Use Free Writing Prospectus (as defined below) in conformity with the Underwriters’ Information. Each of (i) any electronic road show or investor presentation (including without limitation any “bona fide electronic road show” as defined in Rule 433(h)(5) under the Securities Act) delivered to and approved by the Underwriters for use in connection with the marketing of the Offering as of the time of their use and at the Closing Date and on each Option Closing Date, if any and (ii) any individual Written Testing-the-Waters Communication (as defined herein), when considered together with the General Disclosure Package at the Closing Date and on each Option Closing Date, if any, did not and will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading

(d) Each Issuer-Represented Free Writing Prospectus, as of its issue date and at all subsequent times until the Closing Date or until any earlier date that the Company notified or notifies the Representative as described in the next sentence, did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the then-current Registration Statement, Statutory Prospectus or Prospectus. If at any time following issuance of an Issuer-Represented Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer-Represented Free Writing Prospectus conflicted or would conflict with the information contained in the then-current Registration Statement, Statutory Prospectus or 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 has notified or will notify promptly the Representative so that any use of such Issuer-Represented Free Writing Prospectus may cease until it is promptly amended or supplemented by the Company, at its own expense, to eliminate or correct such conflict, untrue statement or omission.

(e) From the time of the initial submission of the Registration Statement to the Commission (or, if earlier, the first date on which the Company engaged directly in or through any Person authorized to act on its behalf in any Testing-the Waters Communication) through the date hereof, the Company has been and is an “emerging growth company,” as defined in Section 2(a) of the Securities 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 Securities Act.

(f) The Company has not (i) alone engaged in any Testing-the-Waters Communications, other than Testing-the-Waters Communications with the written consent of the Representative and with entities that are qualified institutional buyers within the meaning of Rule 144A under the Securities Act or institutions that are accredited investors within the meaning of Rule 501 under the Securities Act or (ii) since February 7, 2022 authorized anyone other than the Representative to engage in Testing-the-Waters Communications. The Company confirms that the Representative 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 other than those listed on Schedule 2-C hereto. “Written Testing-the-Waters Communication” means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Securities Act.

(g) As of the time of filing of the Registration Statement, the Company was a “smaller reporting company,” as defined in Rule 12b-2 of the Exchange Act Regulations.

(h) 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 other than the General Disclosure Package, any Issuer-Represented Limited-Use Free Writing Prospectus or the Prospectus or other materials permitted by the Securities Act to be distributed by the Company. Unless the Company obtains the prior consent of the Representative, the Company has not made and will not make any offer relating to the Securities that would constitute an “issuer free writing prospectus,” as defined in Rule 433 under the Securities Act, or that would otherwise constitute a “free writing prospectus,” as defined in Rule 405 under the Securities Act, required to be filed with the Commission; provided that the prior written consent of the Representative shall be deemed to have been given in respect of any free writing prospectus referenced on Schedule II attached hereto. The Company has complied and will comply with the requirements of Rules 164 and 433 under the Securities Act applicable to any Issuer-Represented Free Writing Prospectus as of its issue date and at all subsequent times through the Closing Date, including timely filing with the Commission where required, legending and record keeping. To the extent an electronic road show is used, the Company has satisfied and will satisfy the conditions in Rule 433 under the Securities Act to avoid a requirement to file with the Commission any electronic road show.

(i) The Representative agrees that, unless it obtains the prior written consent of the Company, it will not make any offer relating to the Securities that would constitute an Issuer-Represented Free Writing Prospectus or that would otherwise (without taking into account any approval, authorization, use or reference thereto by the Company) constitute a “free writing prospectus” required to be filed by the Company with the Commission or retained by the Company under Rule 433 of the Securities Act; provided that the prior written consent of the Company hereto shall be deemed to have been given in respect of any Issuer-Represented General Free Writing Prospectuses referenced on Schedule II attached hereto.

(j) As used in this Agreement, the terms set forth below shall have the following meanings:

(i) “**Applicable Time**” means February 17, 2022, 6:30 p.m. (Eastern time) on the date of this Agreement.

(ii) “**Statutory Prospectus**” as of any time means the prospectus that is included in the Registration Statement immediately prior to that time. For purposes of this definition, information contained in a form of prospectus that is deemed retroactively to be a part of the Registration Statement pursuant to Rule 430A or 430B shall be considered to be included in the Statutory Prospectus as of the actual time that form of prospectus is filed with the Commission pursuant to Rule 424(b) under the Securities Act.

(iii) “**Issuer-Represented Free Writing Prospectus**” means any “issuer free writing prospectus,” as defined in Rule 433 under the Securities Act, relating to the Securities that (A) is required to be filed with the Commission by the Company, or (B) is exempt from filing pursuant to Rule 433(d)(5)(i) under the Securities Act because it contains a description of the Securities or of the Offering that does not reflect the final terms or pursuant to Rule 433(d)(8)(ii) because it is a “bona fide electronic road show,” as defined in Rule 433 under the Securities Act, in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records pursuant to Rule 433(g) under the Securities Act.

(iv) “**Issuer-Represented General Free Writing Prospectus**” means any Issuer-Represented Free Writing Prospectus that is intended for general distribution to prospective investors, as evidenced by its being specified in Schedule II to this Agreement.

(v) “**Issuer-Represented Limited-Use Free Writing Prospectus**” means any Issuer-Represented Free Writing Prospectus that is not an Issuer-Represented General Free Writing Prospectus. The term Issuer-Represented Limited-Use Free Writing Prospectus also includes any “bona fide electronic road show,” as defined in Rule 433 under the Securities Act, that is made available without restriction pursuant to Rule 433(d)(8)(ii), even though not required to be filed with the Commission.

(k) Mayer Hoffman McCann P.C. (the “**Auditor**”), whose reports relating to the Company are included in the Registration Statement, the General Disclosure Package and the Prospectus, is an independent registered public accounting firm as required by the Securities Act, the Exchange Act and the Rules and Regulations and the Public Company Accounting Oversight Board (the “**PCAOB**”). To the Company’s knowledge, the Auditor is not in violation of the auditor independence requirements of the Sarbanes-Oxley Act of 2002, as amended (“**Sarbanes-Oxley**”). The Auditor has not, during the periods covered by the financial statements included in the Registration Statement, the General Disclosure Package and the Prospectus, provided to the Company any non-audit services, as such term is used in Section 10A(g) of the Exchange Act.

(l) Subsequent to the respective dates as of which information is presented in the Registration Statement, the General Disclosure Package and the Prospectus, and except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus: (i) the Company has not declared, paid or made any dividends or other distributions of any kind on or in respect of its capital stock, and (ii) there has been no material adverse change (or, to the knowledge of the Company, any development which could reasonably be expected to result in a material adverse change in the future), whether or not arising from transactions in the ordinary course of business, in or affecting: (A) the business, condition (financial or otherwise), results of operations, shareholders’ equity, properties or prospects of the Company or any of its Subsidiaries (as hereinafter defined); (B) the long-term debt or capital stock of the Company or any of its Subsidiaries; or (C) the Offering or consummation of any of the other transactions contemplated by this Agreement, the Representative’s Warrants, the Registration Statement, the General Disclosure Package and the Prospectus (a “**Material Adverse Change**”). Since the date of the latest balance sheet presented in the Registration Statement, the General Disclosure Package and the Prospectus, the Company has not incurred or undertaken any liabilities or obligations, whether direct or indirect, liquidated or contingent, matured or unmatured, or entered into any transactions, including any acquisition or disposition of any business or asset, which are material to the Company, except for liabilities, obligations and transactions which are disclosed in the Registration Statement, the General Disclosure Package and the Prospectus.

(m) As of the dates set forth in the Registration Statement, the General Disclosure Package and the Prospectus, the Company has an authorized capitalization as set forth in the Registration Statement, the General Disclosure Package and the Prospectus under the heading “Capitalization” all of the issued shares of capital stock of the Company have been duly authorized and validly issued and are fully paid and nonassessable and have been issued in compliance with all applicable federal and to the knowledge of the Company, all state securities laws and none of those shares was issued in violation of any preemptive rights, rights of first refusal or other similar rights to the extent any such rights were not waived; the Securities have been duly authorized and, when issued and delivered against payment therefore as provided in this Agreement, will be validly issued, fully paid and non-assessable, and the issuance of the Securities is not subject to any preemptive rights, rights of first refusal or other similar rights that have not heretofore been waived (with copies of such waivers provided to the Underwriters); and no holder of any Securities or any shares of Common Stock is or will be subject to personal liability by reason of being such a holder. The Securities conform to the descriptions thereof contained in the Registration Statement, the General Disclosure Package and the Prospectus;

(n) Except as described in the Registration Statement, the General Disclosure Package and the Prospectus, (A) there are no outstanding rights (contractual or otherwise), warrants or options to acquire, or instruments convertible into or exchangeable for, or agreements or understandings with respect to the sale or issuance of, any shares of capital stock of or other equity interest in the Company or any of its Subsidiaries and (B) there are no contracts, agreements or understandings between the Company and/or any of its Subsidiaries and any person granting such person the right to require the Company to file a registration statement under the Securities Act or otherwise register any securities of the Company owned or to be owned by such person and any such rights so disclosed have been waived by the holders thereof in connection with this Agreement and the transactions contemplated hereby including the Offering;

(o) The shares of Common Stock underlying the Representative's Warrants have been duly authorized and reserved for issuance, conform to the description thereof in the Registration Statement, the General Disclosure Package and the Prospectus and have been validly reserved for issuance and will, upon exercise of the Representative's Warrants and payment of the exercise price thereof, be duly and validly issued, fully paid and non-assessable and will not have been issued in violation of or be subject to preemptive or similar rights to subscribe for or purchase securities of the Company and the holders thereof will not be subject to personal liability by reason of being such holders.

(p) The subsidiaries of the Company (the "**Subsidiaries**"), together with their respective jurisdictions of incorporation are listed on Schedule IV hereto. Each of the Subsidiaries is wholly-owned by the Company and no person or entity has any right to acquire any equity interest in any of the Subsidiaries. Except for the Subsidiaries, the Company does not own any equity interest in any other corporation, limited liability company or other entity.

(q) The Company and each of its Subsidiaries has been duly incorporated, organized or formed and validly exists as a corporation or limited liability company in good standing under the laws of the state of its incorporation, organization or formation. The Company and each of its Subsidiaries has all requisite power and authority to carry on its business as it is currently being conducted and as described in the Registration Statement, the General Disclosure Package and the Prospectus, and to own, lease and operate its properties. The Company and each of its Subsidiaries is duly qualified to do business and is in good standing as a foreign corporation, partnership or limited liability company in each jurisdiction in which the character or location of its properties (owned, leased or licensed) or the nature or conduct of its business makes such qualification necessary, except, in each case, for those failures to be so qualified or in good standing which (individually and in the aggregate) would not reasonably be expected to have a material adverse effect on: (i) the business, condition (financial or otherwise), results of operations, stockholders' equity, properties or prospects of the Company and its Subsidiaries; (ii) the long-term debt or capital stock of the Company; or (iii) the Offering or consummation of any of the other transactions contemplated by this Agreement, the Registration Statement, the General Disclosure Package and the Prospectus (any such effect being a "**Material Adverse Effect**").

(r) Neither the Company nor any of its Subsidiaries is: (i) in violation of its certificate of incorporation or bylaws, operating agreement or other organizational documents, (ii) in default under any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which it is a party or by which it is bound or to which any of its property or assets is subject; and no event has occurred which, with notice or lapse of time or both, would constitute a default under or result in the creation or imposition of any lien, security interest, charge or other encumbrance (a "**Lien**") upon any of its property or assets pursuant to, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which it is a party or by which it is bound or to which any of its property or assets is subject, or (iii) in violation in any respect of any law, rule, regulation, ordinance, directive, judgment, decree or order of any judicial, regulatory or other legal or governmental agency or body, foreign or domestic, except, in the case of subsections (ii) and (iii) above, for such violations or defaults which (individually or in the aggregate) would not reasonably be expected to have a Material Adverse Effect.

(s) The Company has full right, power and authority to execute and deliver this Agreement, the Representative's Warrants and all other agreements, documents, certificates and instruments required to be delivered pursuant to this Agreement and the Representative's Warrants. The Company has duly and validly authorized this Agreement and the Representative's Warrants and each of the transactions contemplated thereby. This Agreement has been duly and validly executed and delivered by the Company and constitutes the legal, valid and binding obligation of the Company and are enforceable against the Company in accordance with its terms, except (i) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally; (ii) as enforceability of any indemnification or contribution provision may be limited under federal and state securities laws; and (iii) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought.

(t) When issued, the Representative's Warrants will constitute valid and binding obligations of the Company to issue and sell, upon exercise thereof and payment of the respective exercise prices therefor, the number and type of securities of the Company called for thereby in accordance with the terms thereof and the Representative's Warrants are enforceable against the Company in accordance with their respective terms, except: (i) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally; (ii) as enforceability of any indemnification or contribution provision may be limited under foreign, federal and state securities laws; and (iii) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought.

(u) The execution, delivery, and performance by the Company of this Agreement, the Representative's Warrants and all other agreements, documents, certificates and instruments required to be delivered pursuant to this Agreement, the Representative's Warrants and consummation of the transactions contemplated hereby and thereby do not and will not: (i) conflict with, require consent under or result in a breach of any of the terms and provisions of, or constitute a default (or an event which with notice or lapse of time, or both, would constitute a default) under, or result in the creation or imposition of any Lien upon any property or assets of the Company or any of its Subsidiaries pursuant to, any indenture, mortgage, deed of trust, loan agreement or other agreement, instrument, franchise, license or permit to which the Company or any of its Subsidiaries is a party or by which the Company or any of its Subsidiaries or any of their respective properties, operations or assets may be bound or (ii) violate or conflict with any provision of the certificate of incorporation, by-laws, operating agreement or other organizational documents of the Company or any of its Subsidiaries, or (iii) violate or conflict with any law, rule, regulation, ordinance, directive, judgment, decree or order of any judicial, regulatory or other legal or governmental agency or body, domestic or foreign applicable to the Company or any of its Subsidiaries, or (iv) trigger a reset or repricing of any outstanding securities of the Company, except in the case of subsection (i) for any default, conflict or violation that would not have or reasonably be expected to have a Material Adverse Effect.

(v) Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, the Company and each of its Subsidiaries have all material consents, approvals, authorizations, orders, registrations, qualifications, licenses, filings and permits of, with and from all judicial, regulatory and other legal or governmental agencies and bodies and all third parties, foreign and domestic (collectively, the "Consents"), to own, lease and operate their respective properties and conduct their respective businesses as they are now being conducted and as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, and each such Consent is valid and in full force and effect, except which (individually or in the aggregate), in each such case, would not reasonably be expected to have a Material Adverse Effect. Neither the Company nor any of its Subsidiaries has received notice of any investigation or proceedings which results in or, if decided adversely to the Company or any of its Subsidiaries could reasonably be expected to result in, the revocation of, or imposition of a materially burdensome restriction on, any Consent. No Consent contains a materially burdensome restriction not adequately disclosed in the Registration Statement, the General Disclosure Package and the Prospectus.

(w) The Company and each of its Subsidiaries is in compliance with all applicable material laws, rules, regulations, ordinances, directives, judgments, decrees and orders, foreign and domestic, except for any non-compliance the consequences of which would not have or reasonably be expected to have a Material Adverse Effect.).

(x) Intentionally omitted;

(y) The Company has filed with the Commission a Form 8-A (File Number 001-41294 providing for the registration of the Common Stock (the “**Form 8-A Registration Statement**”). The Common Stock is registered pursuant to Section 12(b) under the Exchange Act. The Form 8-A Registration Statement was declared effective by the Commission on or prior to the date hereof. 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, nor has the Company received any notification that the Commission is contemplating terminating such registration.

(z) The Common Stock, including the Shares have been approved for listing on the NASDAQ Capital Market (the “**Exchange**”), subject to notice of official issuance and the Company has taken no action designed to, or likely to have the effect of, delisting its Common Stock, including the Shares, from the Exchange, nor has the Company received any notification that the Exchange is contemplating terminating such listing.

(aa) No consent of, with or from any judicial, regulatory or other legal or governmental agency or body or any third party, foreign or domestic is required for the execution, delivery and performance of this Agreement or the Representative’s Warrants or consummation of each of the transactions contemplated hereby and thereby, including the issuance, sale and delivery of the Securities to be issued, sold and delivered hereunder, except (i) such as may have previously been obtained (with copies of such consents provided to the Underwriters), (ii) the registration under the Securities Act of the Securities, which has become effective, (iii) such consents as may be required under state securities or blue sky laws or the by-laws and rules of the Nasdaq Capital Market, and (iii) the FINRA in connection with the purchase and distribution of the Securities by the Underwriters, each of which has been obtained and is in full force and effect.

(bb) Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, there is no judicial, regulatory, arbitral or other legal or governmental proceeding or other litigation or arbitration, domestic or foreign, pending to which the Company or any of its Subsidiaries is a party or of which any property, operations or assets of the Company or any of its Subsidiaries is the subject which, individually or in the aggregate, if determined adversely to the Company or any of its Subsidiaries would reasonably be expected to have a Material Adverse Effect. To the Company’s knowledge, except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, no such proceeding, litigation or arbitration is threatened or contemplated and the defense of any such proceedings, litigation and arbitration against or involving the Company or any of its Subsidiaries would not reasonably be expected to have a Material Adverse Effect.

(cc) The financial statements, including the notes thereto, and the supporting schedules included in the Registration Statement, the General Disclosure Package and the Prospectus comply in all material respects with the requirements of the Securities Act and the Exchange Act, and present fairly in all material respects the financial position as of the dates indicated and the cash flows and results of operations for the periods specified of the Company. Except as otherwise stated in the Registration Statement, the General Disclosure Package and the Prospectus, said financial statements have been prepared in conformity with United States generally accepted accounting principles (“**GAAP**”) applied on a consistent basis throughout the periods involved, except in the case of unaudited financials which are subject to normal year end adjustments and do not contain certain footnotes. The supporting schedules included in the Registration Statement, the General Disclosure Package and the Prospectus present fairly in all material respects the information required to be stated therein. No other financial statements or supporting schedules are required to be included or incorporated by reference in the Registration Statement, the General Disclosure Package or the Prospectus. The other financial information included in the Registration Statement, the General Disclosure Package and the Prospectus present fairly in all material respects the information included therein and have been prepared on a basis consistent with that of the financial statements that are included in the Registration Statement, the General Disclosure Package and the Prospectus and the books and records of the respective entities presented therein.

(dd) There are no pro forma or as adjusted financial statements which are required to be included in the Registration Statement, the General Disclosure Package and the Prospectus in accordance with Regulation S-X which have not been included as so required. The pro forma and pro forma as adjusted financial information included in the Registration Statement, the General Disclosure Package and the Prospectus has been properly compiled and prepared in accordance with the applicable requirements of the Securities Act and the Rules and Regulations and include all adjustments necessary to present fairly in accordance with GAAP the pro forma and as adjusted financial position of the respective entity or entities presented therein at the respective dates indicated and their cash flows and the results of operations for the respective periods specified. The assumptions used in preparing the pro forma and pro forma as adjusted financial information included in the Registration Statement, the General Disclosure Package and the Prospectus provide a reasonable basis for presenting the significant effects directly attributable to the transactions or events described therein. The related pro forma and pro forma as adjusted adjustments give appropriate effect to those assumptions; and the pro forma and pro forma as adjusted financial information reflect the proper application of those adjustments to the corresponding historical financial statement amounts.

(ee) The statistical, industry-related and market-related data included in the Registration Statement, the General Disclosure Package and the Prospectus are based on or derived from sources which the Company reasonably and in good faith believes are reliable and accurate, and such data agree with the sources from which they are derived.

(ff) The Company has established and maintains disclosure controls and procedures over financial reporting (as defined in Rules 13a-15 and 15d-15 under the Exchange Act) and such controls and procedures are designed to ensure that information relating to the Company required to be disclosed 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 and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. The Company has utilized such controls and procedures in preparing and evaluating the disclosures in the Registration Statement, in the General Disclosure Package and in the Prospectus.

(gg) Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, the Company's board of directors has validly appointed an audit committee whose composition satisfies the requirements of the rules and regulations of the Nasdaq Capital Market and the board of directors and/or audit committee has adopted a charter that satisfies the requirements of the rules and regulations of the Nasdaq Capital Market. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, neither the board of directors nor the audit committee has been informed, nor is the Company aware, of: (i) any significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; or (ii) any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

(hh) Neither the Company nor any of its Affiliates (as defined in the Securities Act) has taken, directly or indirectly, any action which constitutes or is designed to cause or result in, or which could reasonably be expected to constitute, cause or result in, the stabilization or manipulation of the price of any security to facilitate the sale or resale of the Securities.

(ii) Neither the Company nor any of its Affiliates has, prior to the date hereof, made any offer or sale of any securities which are required to be "integrated" pursuant to the Securities Act or the Rules and Regulations with the offer and sale of the Securities pursuant to the Registration Statement. Except as disclosed in the Registration Statement, the General Disclosure Package, and the Prospectus, neither the Company nor any of its Affiliates has sold or issued any securities during the six-month period preceding the date of the Prospectus, including but not limited to any sales pursuant to Rule 144A or Regulation D or Regulation S under the Securities Act.

(jj) To the knowledge of the Company, all information contained in the questionnaires completed by each of the Company's officers and directors and 5% holders immediately prior to the Offering and provided to the Representative as well as the biographies of such officers and directors in the Registration Statement are true and correct in all material respects and the Company has not become aware of any information which would cause the information disclosed in the questionnaires completed by the directors and officers to become inaccurate and incorrect.

(kk) To the knowledge of the Company, no director or officer of the Company or any of its Subsidiaries is subject to any non-competition agreement or non-solicitation agreement with any current employer or prior employer which could materially affect his ability to be and act in his respective capacity of the Company.

(ll) The Company is not and, at all times up to and including consummation of the transactions contemplated by this Agreement, and after giving effect to application of the net proceeds of the Offering, will not be, subject to registration as an “investment company” under the Investment Company Act of 1940, as amended, and is not and will not be an entity “controlled” by an “investment company” within the meaning of such act.

(mm) No relationship, direct or indirect, exists between or among any of the Company or, to the knowledge of the Company, any Affiliate of the Company, on the one hand, and any director, officer, shareholder, customer or supplier of the Company or, to the knowledge of the Company, any Affiliate of the Company, on the other hand, which is required by the Securities Act, the Exchange Act or the Rules and Regulations to be described in the Registration Statement or the Prospectus which is not so described as required. There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees of indebtedness by the Company to or for the benefit of any of the officers or directors of the Company or any of their respective family members, except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus. The Company has not, in violation of Sarbanes-Oxley directly or indirectly extended or maintained credit, arranged for the extension of credit, or renewed an extension of credit, in the form of a personal loan to or for any director or executive officer of the Company.

(nn) The Company is in material compliance with the rules and regulations promulgated by the Nasdaq Capital Market (to the extent applicable to the Company prior to the listing of the Common Stock on the Nasdaq Capital Market following the Closing) or any other governmental or self regulatory entity or agency, except for such violations which, singly or in the aggregate, would not have a Material Adverse Effect. Without limiting the generality of the foregoing: (i) all members of the Company’s board of directors who are required to be “independent” (as that term is defined under applicable laws, rules and regulations), including, without limitation, all members of the audit committee of the Company’s board of directors, meet the qualifications of independence as set forth under applicable laws, rules and regulations and (ii) the audit committee of the Company’s board of directors has at least one member who is an “audit committee financial expert” (as that term is defined under applicable laws, rules and regulations).

(oo) Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, there are no contracts, agreements or understandings between the Company or any of its Subsidiaries and any Person that would give rise to a valid claim against the Company or any Underwriter for a brokerage commission, finder’s fee, financial consulting fee or other like payment in connection with the transactions contemplated by this Agreement or any arrangements, agreements, understandings, payments or issuance with respect to the Company or, to the Company’s knowledge, any of its officers, directors, shareholders, partners, employees or Affiliates that may affect the Underwriters’ compensation as determined by FINRA.

(pp) The Company and each of its Subsidiaries owns or leases all such properties (other than intellectual property, which is covered by Section 2(qq)) as are necessary to the conduct of its business as presently operated as described in the Registration Statement, the General Disclosure Package and the Prospectus. The Company and each of its Subsidiaries has good and marketable title in fee simple to all real property and good and marketable title to all personal property owned by it, in each case free and clear of all Liens except such as are described in the Registration Statement, the General Disclosure Package and the Prospectus or such as do not (individually or in the aggregate) materially affect the business or prospects of the Company or any of its Subsidiaries. Any real property and buildings held under lease or sublease by the Company or any of its Subsidiaries are held by it under valid, subsisting and, to the Company’s knowledge, enforceable leases with such exceptions as are not material to, and do not materially interfere with, the use made and proposed to be made of such property and buildings by the Company or its Subsidiaries. Neither the Company nor any of its Subsidiaries has received any notice of any claim adverse to its ownership of any real or personal property or of any claim against the continued possession of any real property, whether owned or held under lease or sublease by the Company or any of its Subsidiaries.

(qq) To the Company's knowledge, the Company and each of its Subsidiaries: (i) owns, possesses, or has the adequate right to use all patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, copyrights, licenses, formulae, customer lists, and know-how and other intellectual property (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures, "**Intellectual Property**") necessary for the conduct of its businesses as being conducted and as described in the Registration Statement, the General Disclosure and Prospectus and (ii) has no knowledge that the conduct of its business conflicts or will conflict with the rights of others, and it has not received any notice of any claim of conflict with, any right of others. Except as set forth in the Registration Statement, the General Disclosure Package or the Prospectus, neither the Company nor any of its Subsidiaries has granted or assigned to any other Person any right to sell any of the products or services of the Company or its Subsidiaries. To the Company's knowledge, there is no infringement by third parties of any such Intellectual Property; there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the rights of the Company or any of its Subsidiaries 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; and there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others that the Company or any of its Subsidiaries infringes or otherwise violates any patent, trademark, copyright, trade secret or other proprietary rights of others, and the Company is unaware of any other fact which would form a reasonable basis for any such claim. Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, neither the Company nor any of its Subsidiaries has received any claim for royalties or other compensation from any Person, including any employee of the Company or any of its Subsidiaries who made inventive contributions to the technology or products of the Company or any of its Subsidiaries that are pending or unsettled, and except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus neither the Company nor any of its Subsidiaries has or will have any obligation to pay royalties or other compensation to any Person on account of inventive contributions.

(rr) The agreements and documents described in the Registration Statement, the General Disclosure Package and the Prospectus conform in all material respects to the descriptions thereof contained therein and there are no agreements or other documents required by the applicable provisions of the Securities Act to be described in the Registration Statement, the General Disclosure Package or the Prospectus or to be filed with the Commission as exhibits to the Registration Statement, that have not been so described or filed. Each agreement or other instrument (however characterized or described) to which the Company or any of its Subsidiaries is a party or by which any of their respective properties or businesses are or may be bound or affected and (i) that is referred to in the Registration Statement, the General Disclosure Package or the Prospectus or attached as an exhibit thereto, or (ii) is material to the business of the Company or any of its Subsidiaries, has been duly and validly executed by the Company or its Subsidiary, as applicable, is in full force and effect in all material respects and is enforceable against the Company or its Subsidiary in accordance with its terms, except (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally, (y) as enforceability of any indemnification or contribution provision may be limited under the foreign, federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefor may be brought, and none of such agreements or instruments has been assigned by the Company or any of its Subsidiaries, and neither the Company, any Subsidiary nor, to the Company's knowledge, any other party is in breach or default thereunder and, to the Company's knowledge, no event has occurred that, with the lapse of time or the giving of notice, or both, would constitute a breach or default thereunder, in any such case, which would result in a Material Adverse Effect.

(ss) The disclosures in the Registration Statement, the General Disclosure Package and the Prospectus concerning the effects of foreign, federal, state and local regulation on the Company's business as currently contemplated are correct in all material respects and do not omit to state a material fact necessary to make the statements therein, in light of the circumstances in which they were made, not misleading.

(tt) Except for matters that would not, individually or in the aggregate, have or reasonably be expected to result in a Material Adverse Effect, the Company and its Subsidiaries each (i) has made or filed all United States federal, state and local income and all foreign income and franchise tax returns, reports and declarations required by any jurisdiction to which it is subject, (ii) has paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations and (iii) has set aside on its books provision reasonably adequate for the payment of all material taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company or of any Subsidiary know of no basis for any such claim. The provisions for taxes payable, if any, shown on the financial statements filed with or as part of the Registration Statement are sufficient for all accrued and unpaid taxes, whether or not disputed, and for all periods to and including the dates of such consolidated financial statements. No deficiency assessment with respect to a proposed adjustment of the Company's federal, state, local or foreign taxes is pending or, to the Company's knowledge, threatened There is no tax lien, whether imposed by any federal, state, foreign or other taxing authority, outstanding against the assets, properties or business of the Company or any of its Subsidiaries, other than liens for taxes not yet delinquent, or being contested in good faith by appropriate proceedings and for which reserves in accordance with GAAP have been established in the Company's books and records. The term "taxes" mean all federal, state, local, foreign, and other net income, gross income, gross receipts, sales, use, ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes, fees, assessments, or charges, together with any interest and any penalties, additions to tax, or additional amounts with respect thereto. The term "returns" means all returns, declarations, reports, statements, and other documents required to be filed in respect to taxes.

(uu) No labor disturbance or dispute by or with the employees of the Company or any of its Subsidiaries which, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect, currently exists or, to the Company's knowledge, is threatened. The Company and each of its Subsidiaries is in compliance in all material respects with the labor and employment laws and collective bargaining agreements and extension orders applicable to its employees.

(vv) As to each product or product candidate subject to the jurisdiction of the U.S. Food and Drug Administration ("FDA") under the Federal Food, Drug and Cosmetic Act, as amended, and the regulations thereunder ("FDCA") and/or the jurisdiction of the non-U.S. counterparts thereof that is tested, sold and/or marketed by the Company or any of its Subsidiaries (each such product, a "**Product**"), such Product is being tested, sold and/or marketed by the Company or any of its Subsidiaries in compliance with all applicable requirements under FDCA and/or and similar laws, rules and regulations relating to registration, investigational use, premarket clearance, licensure, or application approval, good manufacturing practices, good laboratory practices, good clinical practices, product listing, quotas, advertising, record keeping and filing of reports, except where the failure to be in compliance would not have a Material Adverse Effect. Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, neither the Company nor any of its Subsidiaries currently has any products that have been approved by the FDA or any non-U.S. counterparts thereof to be manufactured, packaged, labeled, distributed, sold and/or marketed. There is no pending, completed or, to the Company's knowledge, threatened, action (including any lawsuit, arbitration, or legal or administrative or regulatory proceeding, charge, complaint, or investigation) against the Company or any of its Subsidiaries and neither the Company nor any of its Subsidiaries has received any notice, warning letter or other communication from the FDA or any other governmental entity or any non-U.S. counterparts thereof, which (i) contests the premarket clearance, licensure, registration, or approval of, the uses of, the distribution of, the manufacturing or packaging of, the testing of, the sale of, or the labeling and promotion of any Product, (ii) withdraws its approval of, requests the recall, suspension, or seizure of, or withdraws or orders the withdrawal of advertising or sales promotional materials relating to, any Product, (iii) imposes a clinical hold on any clinical investigation by the Company or its Subsidiaries (iv) enjoins production at any facility of the Company or its Subsidiaries, (v) enters or proposes to enter into a consent decree of permanent injunction with the Company or its Subsidiaries, or (vi) otherwise alleges any violation of any laws, rules or regulations by the Company or its Subsidiaries. The properties, business and operations of the Company and each of its Subsidiaries have been and are being conducted in all material respects in accordance with all applicable laws, rules and regulations of the FDA and non-U.S. counterparts thereof.

(ww) The pre-clinical and other studies and tests conducted by or on behalf of or sponsored by the Company and each of its Subsidiaries that are described or referred to in the Registration Statement, the General Disclosure Package and the Prospectus were and, if still pending, are being conducted in all material respects accordance with all statutes, laws, rules and regulations, as applicable (including, without limitation, those administered by the FDA or by any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA). The descriptions of the results of such studies and tests that are described or referred to in the Registration Statement, the General Disclosure Package and the Prospectus are accurate and complete in all material respects and fairly present the published data derived from such studies and tests. Neither the Company nor any of its Subsidiaries has received any notices or other correspondence from the FDA or any other foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA with respect to any ongoing pre-clinical studies or tests requiring the termination or suspension of such studies or tests. For the avoidance of doubt, the Company makes no representation or warranty that the results of any studies, tests or preclinical trials conducted by or on behalf of the Company or any of its Subsidiaries will be sufficient to obtain governmental approval from the FDA or any foreign, state or local governmental body exercising comparable authority or that additional studies, tests or preclinical trials will reach similar results or conclusions.

(xx) Except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus, and would not be reasonably expected, individually or in the aggregate, to have a Material Adverse Effect, the Company and each of its Subsidiaries has at all times operated its business in material compliance with all Environmental Laws (as hereinafter defined), and no material expenditures are or will be required in order to comply therewith. Neither the Company nor any of its Subsidiaries has received any notice or communication that relates to or alleges any actual or potential violation or failure to comply with any Environmental Laws that would, individually or in the aggregate, be reasonably expected to have a Material Adverse Effect. As used herein, the term “**Environmental Laws**” means all applicable laws and regulations, including any licensing, permits or reporting requirements, and any action by a federal state or local government entity pertaining to the protection of the environment, protection of public health, protection of worker health and safety, or the handling of hazardous materials, including without limitation, the Clean Air Act, 42 U.S.C. § 7401, et seq., the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601, et seq., the Federal Water Pollution Control Act, 33 U.S.C. § 1321, et seq., the Hazardous Materials Transportation Act, 49 U.S.C. § 1801, et seq., the Resource Conservation and Recovery Act, 42 U.S.C. § 690-1, et seq., and the Toxic Substances Control Act, 15 U.S.C. § 2601, et seq.

(yy) Reserved

(zz) The Company and each of its Subsidiaries maintains insurance in such amounts and covering such risks as the Company reasonably considers adequate for the conduct of their respective businesses and the value of their respective properties and as is customary for similarly situated pre-clinical companies engaged in similar businesses in similar industries, all of which insurance is in full force and effect, except where the failure to maintain such insurance could not reasonably be expected to have Material Adverse Effect. The Company reasonably believes that it and each of its Subsidiaries will be able to renew its existing insurance as and when such coverage expires or will be able to obtain replacement insurance adequate for the conduct of its respective business and the value of its respective properties at a cost that would not have a Material Adverse Effect. The Company currently maintains director and officer insurance coverage in an amount of \$2,000,000.

(aaa) Except as would not result in a Material Adverse Effect, neither the Company nor any of its Subsidiaries has failed to file with the applicable regulatory authorities (including the FDA or any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA) any filing, declaration, listing, registration, report or submission that is required to be so filed for the business operation of the Company or such Subsidiary as currently conducted. All such filings were in material compliance with applicable laws when filed and no deficiencies have been asserted in writing by any applicable regulatory authority (including the FDA or any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA) with respect to any such filings, declarations, listings, registrations, reports or submissions. The Company and each of its Subsidiaries holds, and is in material compliance with, all material franchises, grants, authorizations, licenses, permits, easements, consents, certificates and orders (“**Permits**”) of any governmental or self-regulatory agency, authority or body (including the FDA or any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA) required for the conduct of the business of the Company and each of its Subsidiaries as currently conducted, and all such Permits are in full force and effect, in each case except where the failure to hold, or comply with, any of them is not reasonably likely to result in a Material Adverse Effect.

(bbb) Neither the Company nor any of its Subsidiaries nor, to the knowledge of the Company, any other person associated with or acting on behalf of the Company or any of its Subsidiaries including, without limitation, any director, officer, agent or employee of the Company or its Subsidiaries, has, directly or indirectly, while acting on behalf of the Company or its Subsidiaries: (i) used any corporate funds for unlawful contributions, gifts, entertainment or other unlawful expenses relating to political activity; (ii) made any unlawful payment to foreign or domestic government officials or employees or to foreign or domestic political parties or campaigns from corporate funds; (iii) violated any provision of the Foreign Corrupt Practices Act of 1977, as amended; or (iv) made any other unlawful payment.

(ccc) Neither the Company nor any of its Subsidiaries or Affiliates is subject to the Bank Holding Company Act of 1956, as amended (the “**BHCA**”) and to regulation by the Board of Governors of the Federal Reserve System (the “**Federal Reserve**”). Neither the Company nor any of its Subsidiaries or Affiliates owns or controls, directly or indirectly, five percent (5%) or more of the outstanding shares of any class of voting securities or twenty-five percent (25%) or more of the total equity of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve. Neither the Company nor any of its Subsidiaries or Affiliates exercises a controlling influence over the management or policies of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve.

(ddd) The operations of the Company and each of its Subsidiaries are and have been conducted at all times in compliance in all material respects with applicable financial record keeping and reporting requirements and money laundering statutes of the United States and, to the Company’s knowledge, all other jurisdictions to which the Company and each of its Subsidiaries is subject, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any applicable governmental agency (collectively, the “**Money Laundering Laws**”) and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its Subsidiaries with respect to the Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

(eee) Neither the Company nor any of its Subsidiaries, nor to the knowledge of the Company, any director, officer, agent, employee or Affiliate of the Company or any of its Subsidiaries is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department (“**OFAC**”); and the Company will not directly or indirectly use the proceeds of the Offering, or lend, contribute or otherwise make available such proceeds to any joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(fff) Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, no brokerage or finder’s fees or commissions are or will be payable by the Company or any Subsidiary to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. To the Company’s knowledge, there are no other arrangements, agreements or understandings of the Company or, to the Company’s knowledge, any of its stockholders that may affect the Underwriters’ compensation, as determined by FINRA. The Company has not made any direct or indirect payments (in cash, securities or otherwise) to (i) any person, as a finder’s fee, investing fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who provided capital to the Company, (ii) any FINRA member, or (iii) any person or entity that has any direct or indirect affiliation or association with any FINRA member participating in the Offering within the 12-month period prior to the date on which the Registration Statement was filed with the Commission (the “**Filing Date**”) or thereafter. To the Company’s knowledge, no (i) officer or director of the Company or its subsidiaries, (ii) owner of 5% or more of the Company’s unregistered securities or that of its subsidiaries or (iii) owner of any amount of the Company’s unregistered securities acquired within the 180-day period prior to the Filing Date, has any direct or indirect affiliation or association with any FINRA member participating in the Offering. The Company will advise the Underwriters and their respective counsel if it becomes aware that any officer, director or stockholder of the Company or its subsidiaries is or becomes an affiliate or associated person of a FINRA member participating in the Offering.

(ggg) As used in this Agreement, references to matters being “**material**” with respect to the Company shall mean a material event, change, condition, status or effect related to the condition (financial or otherwise), properties, assets (including intangible assets), liabilities, business, prospects, operations or results of operations of the Company either individually or taken as a whole, as the context requires.

(hhh) As used in this Agreement, the term “**knowledge of the Company**” (or similar language) shall mean the knowledge of the executive officers and directors of the Company who have signed the Registration Statement, with the assumption that such executive officers and directors shall have made reasonable and diligent inquiry of the matters presented (with reference to what is customary and prudent for the applicable individuals in connection with the discharge by the applicable individuals of their duties as executive officers or directors of the Company).

(iii) Any certificate signed by or on behalf of the Company and delivered to the Underwriters or to Loeb & Loeb LLP (“**Underwriters’ Counsel**”) shall be deemed to be a representation and warranty by the Company to each Underwriter listed on Schedule A hereto as to the matters covered thereby.

3. **Offering.** Upon authorization of the release of the Securities by the Representative, the Underwriters propose to offer the Securities for sale to the public upon the terms and conditions set forth in the Prospectus.

4. **Covenants of the Company.** The Company acknowledges, covenants and agrees with the Representative that:

(a) The Registration Statement and any amendments thereto have been declared effective, and if Rule 430A is used or the filing of the Prospectus is otherwise required under Rule 424(b), the Company will file the Prospectus (properly completed if Rule 430A has been used) pursuant to Rule 424(b) within the prescribed time period and will provide evidence satisfactory to the Representative of such timely filing. The Company will file with the Commission all Issuer Free Writing Prospectuses in the time and manner required under Rules 433(d) or 163(b)(2), as the case may be.

(b) During the period beginning on the date hereof and ending on the later of the Closing Date or such date as, in the opinion of Underwriters’ Counsel, the Prospectus is no longer required by law to be delivered (or in lieu thereof the notice referred to in Rule 173(a) under the Securities Act is no longer required to be provided), in connection with sales by an underwriter or dealer (the “**Prospectus Delivery Period**”), prior to amending or supplementing the Registration Statement or the Prospectus, the Company shall furnish to the Representatives for review a copy of each such proposed amendment or supplement, and the Company shall not file any such proposed amendment or supplement to which the Representatives reasonably object within 24 hours of delivery thereof to the Representatives and Underwriters’ Counsel.

(c) After the date of this Agreement, the Company shall promptly advise the Representative in writing (i) of the receipt of any comments of, or requests for additional or supplemental information from, the Commission, (ii) of the time and date of any filing of any post-effective amendment to the Registration Statement or any amendment or supplement to any prospectus, the General Disclosure Package or the Prospectus, (iii) of the time and date that any post-effective amendment to the Registration Statement becomes effective, and (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto or of any order preventing or suspending its use or the use of any prospectus, the General Disclosure Package, the Prospectus or any Issuer-Represented Free Writing Prospectus, or of any proceedings to remove, suspend or terminate from listing the Common Stock from any securities exchange upon which they are listed for trading, or of the threatening or initiation of any proceedings for any of such purposes. If the Commission shall enter any such stop order at any time, the Company will use its reasonable efforts to obtain the lifting of such order at the earliest possible moment. Additionally, the Company agrees that it shall comply with the provisions of Rules 424(b), 430A and 430B, as applicable, under the Securities Act and will use its reasonable best efforts to confirm that any filings made by the Company under Rule 424(b) or Rule 433 were received in a timely manner by the Commission (without reliance on Rule 424(b)(8) or Rule 164(b)).

(d) (i) During the Prospectus Delivery Period, the Company will comply in all material respects with all requirements imposed upon it by the Securities 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 General Disclosure Package, the Registration Statement 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 General 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 under which such statements were made, not misleading, or if during such period it is necessary or appropriate in the opinion of the Company or its counsel or the Representative or Underwriters’ Counsel to amend the Registration Statement or supplement the Prospectus (or if the Prospectus is not yet available to prospective purchasers, the General Disclosure Package) to comply with the Securities Act or to file under the Exchange Act any document which would be deemed to be incorporated by reference in the Prospectus in order to comply with the Securities Act or the Exchange Act, the Company will promptly notify the Representative and will amend the Registration Statement or supplement the Prospectus (or if the Prospectus is not yet available to prospective purchasers, the General Disclosure Package) or file such document (at the expense of the Company) so as to correct such statement or omission or effect such compliance.

(ii) If at any time following issuance of an Issuer-Represented Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer-Represented Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement, the Statutory Prospectus or the Prospectus 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 has promptly notified or promptly will notify the Representative and has promptly amended or will promptly amend or supplement, at its own expense, such Issuer-Represented Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(e) The Company will promptly deliver to the Underwriters and Underwriters' Counsel a signed copy of the Registration Statement, as initially filed and all amendments thereto, including all consents and exhibits filed therewith, and will maintain in the Company's files manually signed copies of such documents for at least five (5) years after the date of filing thereof. The Company will promptly deliver to each of the Underwriters such number of copies of any Preliminary Prospectus, the Prospectus, the Registration Statement, and all amendments of and supplements to such documents, if any, and all documents which are exhibits to the Registration Statement and Prospectus or any amendment thereof or supplement thereto, as the Underwriters may reasonably request. Prior to 10:00 a.m., New York time, on the Business Day next succeeding the date of this Agreement and from time to time thereafter, the Company will furnish the Underwriters with copies of the Prospectus in New York City in such quantities as the Underwriters may reasonably request.

(f) The Company consents to the use and delivery of the Preliminary Prospectus by the Underwriters in accordance with Rule 430 and Section 5(b) of the Securities Act.

(g) If the Company elects to rely on Rule 462(b) under the Securities Act, the Company shall both file a Rule 462(b) Registration Statement with the Commission in compliance with Rule 462(b) and pay the applicable fees in accordance with Rule 111 of the Securities Act by the earlier of: (i) 10:00 p.m., New York City time, on the date of this Agreement, and (ii) the time that confirmations are given or sent, as specified by Rule 462(b)(2).

(h) The Company will use its reasonable best efforts, in cooperation with the Representative, at or prior to the time of effectiveness of the Registration Statement, to qualify the Securities for offering and sale under the securities laws relating to the offering or sale of the Securities of such jurisdictions, domestic or foreign, as the Representative may reasonably designate and to maintain such qualification in effect for so long as required for the distribution thereof, except that in no event shall the Company be obligated in connection therewith to qualify as a foreign corporation or other entity or as a dealer in securities in any such jurisdiction, to execute a general consent to service of process in any such jurisdiction, or to subject itself to taxation in any such jurisdiction if it is otherwise not so subject.

(i) During a period of twelve (12) months following the date of this Agreement (the "**Company Lock-up Period**"), the Company may not, without the prior written consent of the Representative, (i) offer, sell, issue, agree or contract to sell or issue or grant or modify the terms of any option for the sale of any securities of the Company, except for (A) the issuance of securities under the Company's 2019 Equity Incentive Plan and 2022 Equity Incentive Plan, as described in the Registration Statement, and the Prospectus, (B) the issuance of shares of Common Stock upon the exercise or conversion of securities that are issued and outstanding on the date of this Agreement and are described in the Registration Statement and 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 or conversion price of such securities (other than in connection with stock splits, adjustments or combinations as set forth in such securities) or to extend the term of such securities or (C) securities issued pursuant to acquisitions or strategic transactions approved by a majority of the disinterested directors of the Company, provided that such securities are issued as "restricted securities" (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith within 90 days following the Closing Date, and provided that any such issuance shall only be to a Person (or to the equity holders of a Person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities, or (ii) file any registration statement relating to the offer or sale of any of the Company's securities except for any registration statement on Form S-8 covering securities to be issued under the Company's 2019 Equity Incentive Plan or 2022 Equity Incentive Plan.

(j) Schedule II hereto contains a complete and accurate list of the Company's executive officers, directors and all existing holders of the Company's Common Stock (collectively, the "**Lock-Up Parties**"). The Company has caused each of the Lock-Up Parties to deliver to the Representative an executed Lock-Up Agreement, in the form attached hereto as Annex I (the "**Lock-Up Agreement**"), prior to the execution of this Agreement.

(k) If the Representative, in its sole discretion, agrees to release or waive the restrictions set forth in a Lock-Up Agreement described in Section 4(j) hereof for an officer or director of the Company and provide the Company with notice of the impending release or waiver at least three business days before the effective date of the release or waiver, the Company agrees to announce the impending release or waiver by (i) a press release substantially in the form of Annex VI hereto through a major news service or (ii) any other method that satisfies the obligations described in FINRA Rule 5131(d)(2) at least two business days before the effective date of the release or waiver.

(l) For a period of three years from the Closing Date, the Company shall retain Continental Stock Transfer & Trust Company as the Company's transfer agent and registrar for the Common Stock or a transfer and registrar agent for the Common Stock, reasonably acceptable to the Representative.

(m) Reserved.

(n) For a period of at least three (3) years from the Effective Date, the Company shall retain a nationally recognized PCAOB registered independent public accounting firm reasonably acceptable to the Representative. The Representative acknowledges that the Auditor is acceptable to the Representative.

(o) During the period of one (1) year from the Effective Date, the Company will make available to the Representative copies of all reports or other communications (financial or other) furnished to security holders or from time to time published or publicly disseminated by the Company, and will deliver to the Representative: (i) as soon as practicable after they are available, copies of any reports, financial statements and proxy or information statements furnished to or filed with the Commission or any national securities exchange on which any class of securities of the Company is listed; and (ii) such additional information concerning the business and financial condition of the Company as the Representative may from time to time reasonably request in writing pursuant to a specific regulatory or liability issue or; provided, that any such item which is available on the EDGAR system (or successor thereto) need not be furnished in physical form.

(p) The Company will not issue press releases or engage in any other publicity without the Representative's prior written consent, for a period ending at 5:00 p.m. Eastern time on the first Business Day following the forty fifth (45th) day following the Closing Date, other than normal and customary releases issued in the ordinary course of the Company's business, or as required by law.

(q) Intentionally Omitted

(r) The Company will apply the net proceeds from the sale of the Securities as set forth under the caption "Use of Proceeds" in the Prospectus.

(s) The Company will use its commercial best efforts to effect and maintain the listing of the Common Stock on the Nasdaq Capital Market, the NYSE, or the NYSE American, for at least three (3) years after the Closing Date.

(t) The Company, during the Prospectus Delivery Period, will file all documents required to be filed with the Commission pursuant to the Securities Act, the Exchange Act and the Rules and Regulations within the time periods required thereby.

(u) The Company will use its reasonable best efforts to do and perform all things required to be done or performed under this Agreement by the Company prior to the Closing Date, and to satisfy all conditions precedent to the delivery of the Securities.

(v) The Company will not take, and will use its reasonable best efforts to cause its Affiliates not to take, directly or indirectly, any action which constitutes or is designed to cause or result in, or which could reasonably be expected to constitute, cause or result in, the stabilization or manipulation of the price of any security to facilitate the sale or resale of the Securities.

(w) The Company shall cause to be prepared and delivered to the Representative, at its expense, within two (2) Business Days from the effective date of this Agreement, an Electronic Prospectus to be used by the Underwriters in connection with the Offering. As used herein, the term "Electronic Prospectus" means a form of prospectus, and any amendment or supplement thereto, that meets each of the following conditions: (i) it shall be encoded in an electronic format, satisfactory to the Representative, that may be transmitted electronically by the other Underwriters to offerees and purchasers of the Securities for at least the period during which a Prospectus relating to the Securities is required to be delivered under the Securities Act; (ii) it shall disclose the same information as the paper prospectus and prospectus filed pursuant to EDGAR, except to the extent that graphic and image material cannot be disseminated electronically, in which case such graphic and image material shall be replaced in the electronic prospectus with a fair and accurate narrative description or tabular representation of such material, as appropriate; and (iii) it shall be in or convertible into a paper format or an electronic format, satisfactory to the Representative, that will allow recipients thereof to store and have continuously ready access to the prospectus at any future time, without charge to such recipients (other than any fee charged for subscription to the Internet as a whole and for on-line time).

(x) The Company represents and agrees that, unless it obtains the prior written consent of the Representative, and the Representative represents and 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 that would constitute an "issuer free writing prospectus," as defined in Rule 433 under the Securities Act, or that would otherwise constitute a "free writing prospectus," as defined in Rule 405 under the Securities Act, 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 II. Any such free writing prospectus consented to by the Company and the Representative is hereinafter referred to as a "Permitted Free Writing Prospectus." Each of the Company and the Representative represents that it has treated or agrees that it will treat each Permitted Free Writing Prospectus as an "issuer free writing prospectus," as defined in Rule 433, and has complied and will comply with the requirements of Rule 433 applicable to any Permitted Free Writing Prospectus, including timely Commission filing where required, legending and record keeping.

(y) The Company hereby grants Representative the right of first refusal for a period of twelve (12) months from the Effective Date of this Agreement to act as sole underwriter or placement agent for any and all future public and private equity and debt (excluding commercial bank debt) offerings during such twelve (12) month period of the Company, or any successor or any Subsidiary of the Company. The Company and Representative agree that the provisions of the preceding sentence shall not be applicable to financing provided by or solicited from any person or entity who is a current holder of the Company's debt or equity.

5. Payment of Expenses.

(a) Whether or not the transactions contemplated by this Agreement, the Registration Statement and the Prospectus are consummated or this Agreement is terminated, the Company hereby agrees to pay all costs and expenses incident to the performance of its obligations hereunder including the following:

(i) all filing fees and communication expenses related to the registration of the Securities to be sold in the Offering including all expenses in connection with the preparation, printing, formatting for EDGAR and filing of the Registration Statement, any Preliminary Prospectus and the Prospectus and any and all amendments and supplements thereto and the mailing and delivering of copies thereof to the Underwriters and dealers;

(ii) all fees and expenses in connection with filings with FINRA;

(iii) all fees, disbursements and expenses of the Company's counsel and accountants in connection with the registration of the Securities under the Securities Act and the Offering;

(iv) all fees and expenses in connection with listing the Common Stock on the Nasdaq Capital Market;

(v) the costs of all mailing and printing of the underwriting documents (including this Agreement, any blue sky surveys and, if appropriate, any Agreement Among Underwriters, Selected Dealers' Agreement, Underwriters' Questionnaire and Power of Attorney);

(vi) all reasonable travel expenses of the Company's officers and employees and any other expense of the Company incurred in connection with attending or hosting meetings with prospective purchasers of the Securities;

(vii) any stock transfer taxes payable upon the transfer of securities by the Company to the Underwriters and any other taxes incurred by the Company in connection with this Agreement or the Offering;

(viii) the costs associated with book building, prospectus tracking and compliance software and the cost of preparing certificates representing the Securities;

(ix) the cost and charges of any transfer agent or registrar for the Securities;

(x) any reasonable cost and expenses in conducting background checks of the Company's officers and directors by a background search firm acceptable to the Representative;

(xi) fees of Underwriters' Counsel;

(xii) the cost of preparing, printing and delivering certificates representing each of the Securities;

(xiii) all other costs, fees and expenses incident to the performance of the Company obligations hereunder which are not otherwise specifically provided for in this section

(b) Notwithstanding anything to the contrary in this Section 5, in the event that this Agreement is terminated by the Company, pursuant to Section 11(b) hereof, or subsequent to a Material Adverse Change, the Company will pay the out-of-pocket expenses actually incurred as allowed under FINRA Rule 5110 by the Underwriters through the date of such termination (including the fees and disbursements of Underwriters' Counsel).

6. Conditions of Underwriters' Obligations. The obligations of the Underwriters to purchase and pay for the Shares as provided herein shall be subject to: (i) the accuracy of the representations and warranties of the Company herein contained, as of the date hereof and as of the Closing Date, (ii) the absence from any certificates, opinions, written statements or letters furnished to the Representative or to Underwriters' Counsel pursuant to this Section 6 of any misstatement or omission, (iii) the performance by the Company of its obligations hereunder, and (iv) each of the following additional conditions.

(a) The Registration Statement shall have become effective and all necessary regulatory or listing approvals shall have been received not later than 5:30 p.m., New York time, on the date of this Agreement, or at such later time and date as shall have been consented to in writing by the Representative. If the Company shall have elected to rely upon Rule 430A under the Securities Act, the Prospectus shall have been filed with the Commission in a timely fashion in accordance with the terms hereof and a form of the Prospectus containing information relating to the description of the Securities and the method of distribution and similar matters shall have been filed with the Commission pursuant to Rule 424(b) within the applicable time period; and, at or prior to the Closing Date or the actual time of the Closing, no stop order suspending the effectiveness of the Registration Statement or any part thereof, or any amendment thereof, nor suspending or preventing the use of the General 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 threatened; any request of the Commission for additional information (to be included in the Registration Statement, the General Disclosure Package, the Prospectus, any Issuer Free Writing Prospectus or otherwise) shall have been complied with to the Representative's satisfaction; and FINRA shall have raised no objection to the fairness and reasonableness of the underwriting terms and arrangements.

(b) The Representative shall not have reasonably determined, and advised the Company, that the Registration Statement, the General 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 the Representative's reasonable opinion, is material, or omits to state a fact which, in the Representative's reasonable opinion, is material and is required to be stated therein or necessary to make the statements therein not misleading; provided, however, that if in the Representative's opinion such deficiency is curable Representative shall have given the Company reasonable notice of such deficiency and a reasonable chance to cure such deficiency.

(c) The Representative shall have received the written opinion and negative assurance letter of (i) Ellenoff Grossman & Schole LLP, the securities counsel for the Company, dated as of the Closing Date and addressed to the Representative substantially in the form attached hereto as Annex II-A and (ii) Shumaker, Loop & Kendrick, LLP, the corporate counsel for the Company, dated as of the Closing Date and addressed to the Representative substantially in the form attached hereto as Annex II-B. The Representative shall have received the written opinion of Shumaker, Loop & Kendrick, LLP, the Intellectual Property counsel to the Company dated as of the Closing Date and addressed to the Representative substantially in the form attached hereto as Annex III. The Representative shall have received the certificate of the Company's chief executive officer dated as of the Closing Date with respect to the regulatory matters substantially in the form attached hereto as Annex IV.

(d) The Representative shall have received a certificate of the Chief Executive Officer and Chief Financial Officer of the Company, dated as of each Closing Date to the effect that: (i) the condition set forth in subsection (a) of this Section 6 has been satisfied, (ii) as of the date hereof and as of the Closing Date, the representations and warranties of the Company set forth in Sections 1 and 2 hereof are accurate, (iii) as of the Closing Date, all agreements, conditions and obligations of the Company to be performed or complied with hereunder on or prior thereto have been duly performed or complied with, (iv) the Company has not sustained any material loss or interference with their respective businesses, whether or not covered by insurance, or from any labor dispute or any legal or governmental proceeding, (v) no stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereof has been issued and no proceedings therefor have been initiated or threatened by the Commission, (vi) there are no pro forma or as adjusted financial statements that are required to be included or incorporated by reference in the Registration Statement and the Prospectus pursuant to the Rules and Regulations which are not so included or incorporated by reference, and (vii) subsequent to the respective dates as of which information is given in the Registration Statement and the Prospectus there has not been any Material Adverse Change or any development involving a prospective Material Adverse Change, whether or not arising from transactions in the ordinary course of business.

(e) On the date of this Agreement and on the Closing Date, the Representative shall have received a "cold comfort" letter from the Auditor as of the date of delivery and addressed to the Representative and in form and substance satisfactory to the Representative and Underwriters' Counsel, confirming that they are independent certified public accountants with respect to the Company within the meaning of the Securities Act and the Rules and Regulations, and stating, as of the date of delivery (or, with respect to matters involving changes or developments since the respective dates as of which specified financial information is given in the Prospectus, as of a date not more than five (5) days prior to the date of such letter), the conclusions and findings of such firm with respect to the financial information and other matters relating to the Registration Statement and the Prospectus covered by such letter.

(f) Subsequent to the execution and delivery of this Agreement and prior to the Closing Date, there shall not have been any change in the capital stock or long-term debt of the Company or any change or development involving a change, whether or not arising from transactions in the ordinary course of business, in the business, condition (financial or otherwise), results of operations, stockholders' equity, properties or prospects of the Company including but not limited to the occurrence of any fire, flood, storm, explosion, accident, act of war or terrorism or other calamity, the effect of which, in any such case described above, is, in the sole judgment of the Representative, so material and adverse as to make it impracticable or inadvisable to proceed with the Offering on the terms and in the manner contemplated in the Prospectus (exclusive of any supplement).

(g) Prior to the execution and delivery of this Agreement, the Representative shall have received a lock-up agreement from each Lock-Up Party, duly executed by the applicable Lock-Up Party, in each case substantially in the form attached hereto as Annex I.

(h) As of the Closing Date, the Shares shall be listed and admitted and authorized for trading on the Nasdaq Capital Market and satisfactory evidence of such action shall have been provided to the Representative. The Company shall have 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 or suspending from trading the Common Stock from the Nasdaq Capital Market, nor has the Company received any information suggesting that the Commission or the Nasdaq Capital Market is contemplating terminating such registration of listing. The Shares shall be DTC eligible.

(i) FINRA shall have confirmed that it has not raised any objection with respect to the fairness and reasonableness of the underwriting terms and arrangements.

(j) No action shall have been taken and no statute, rule, regulation or order shall have been enacted, adopted or issued by any federal, state or foreign governmental or regulatory authority that would, as of the Closing Date, prevent the issuance or sale of the Securities; and no injunction or order of any federal, state or foreign court shall have been issued that would, as of the Closing Date, prevent the issuance or sale of the Securities or materially and adversely affect or potentially and adversely affect the business or operations of the Company.

(k) The Company shall have furnished the Representative with a Certificate of Good Standing for the Company certified by the Secretary of State of Delaware.

(l) On the Closing Date, there shall have been issued to the Representative, a Representative's Warrant in the form attached hereto as Annex V.

(m) The Company shall have furnished the Representative and Underwriters' Counsel with such other certificates, opinions or other documents as they may have reasonably requested.

If any of the conditions specified in this Section 6 shall not have been fulfilled when and as required by this Agreement, or if any of the certificates, opinions, written statements or letters furnished to the Representative or to Underwriters' Counsel pursuant to this Section 6 shall not be reasonably satisfactory in form and substance to the Representative and to Underwriters' Counsel, all obligations of the Underwriters hereunder may be cancelled by the Representative at, or at any time prior to, the consummation of the Closing. Notice of such cancellation shall be given to the Company in writing or by telephone. Any such telephone notice shall be confirmed promptly thereafter in writing.

7. Indemnification.

(a) The Company agrees to indemnify and hold harmless each Underwriter, its officers, directors and employees, and each Person, if any, who controls such Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, against any losses, liabilities, claims, damages and expenses whatsoever as incurred (including but not limited to reasonable attorneys' fees and any and all expenses whatsoever incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, and any and all amounts paid in settlement of any claim or litigation), joint or several, to which they or any of them may become subject under the Securities Act, the Exchange 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, liabilities, claims, damages or expenses (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 (A) the Registration Statement, including the information deemed to be a part of the Registration Statement at the time of effectiveness and at any subsequent time pursuant to Rules 430A and 430B of the Rules and Regulations, the General Disclosure Package, the Prospectus, or any amendment or supplement thereto (including any documents filed under the Exchange Act and deemed to be incorporated by reference into the Prospectus), (B) any Issuer Free Writing Prospectus or in any other materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the offering of the Securities, including any road show or investor presentations made to investors by the Company (whether in person or electronically) (collectively "**Marketing Materials**") or (C) any filings or reports filed by the Company under the Exchange Act, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse such indemnified party for any legal or other expenses reasonably incurred by it in connection with investigating or defending against such loss, claim, damage, liability or action; or (ii) in whole or in part upon any inaccuracy in the representations and warranties of the Company contained herein; or (iii) in whole or in part upon any failure of the Company to perform its obligations hereunder or under law; provided, however, that the Company shall 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 the Registration Statement, any Preliminary Prospectus, the General Disclosure Package, the Prospectus, or any such amendment or supplement, any Issuer Free Writing Prospectus or any other Marketing Materials, in reliance upon and in conformity with the Underwriters' Information.

(b) Each Underwriter, severally and not jointly, shall indemnify and hold harmless the Company, each of the directors of the Company, each of the officers of the Company who shall have signed the Registration Statement, and each other Person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, against any losses, liabilities, claims, damages and expenses whatsoever as incurred (including but not limited to attorneys' fees and any and all expenses whatsoever incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, and any and all amounts paid in settlement of any claim or litigation), joint or several, to which they or any of them may become subject under the Securities Act, the Exchange Act or otherwise, insofar as such losses, liabilities, claims, damages or expenses (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, as originally filed or any amendment thereof, or any related Preliminary Prospectus or the Prospectus, or in any amendment thereof or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that any such loss, liability, claim, damage or expense arises out of or is based upon any such untrue statement or alleged untrue statement or omission or alleged omission made therein in reliance upon and in conformity with the Underwriters' Information; provided, however, that in no case shall any Underwriter be liable or responsible for any amount in excess of the aggregate underwriting discount applicable to the Securities to be purchased by such Underwriter hereunder. The parties agree that such information provided by or on behalf of any Underwriter through the Representative consists solely of the material referred to in the last sentence of Section 2(b) hereof.

(c) Promptly after receipt by an indemnified party under subsection (a) or (b) above of notice of any claims or 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 each party against whom indemnification is to be sought in writing of the claim or the commencement thereof (but the failure so to notify an indemnifying party shall not relieve the indemnifying party from any liability which it may have under this Section 7 to the extent that it is not materially prejudiced as a result thereof and in any event shall not relieve it from any liability that such indemnifying party may have otherwise than on account of the indemnity agreement hereunder). In case any such claim or action is brought against any indemnified party, and it notifies an indemnifying party of the commencement thereof, the indemnifying party will be entitled to participate, at its own expense in the defense of such action, and to the extent it may elect by written notice delivered to the indemnified party promptly after receiving the aforesaid notice from such indemnified party, to assume the defense thereof with counsel satisfactory to such indemnified party; provided however, that counsel to the indemnifying party shall not (except with the written consent of the indemnified party) also be counsel to the indemnified party. Notwithstanding the foregoing, the indemnified party or parties shall have the right to employ its or their own counsel in any such case, but the fees and expenses of such counsel shall be at the expense of such indemnified party or parties unless (i) the employment of such counsel shall have been authorized in writing by one of the indemnifying parties in connection with the defense of such action, (ii) the indemnifying parties shall not have employed counsel to have charge of the defense of such action within a reasonable time after notice of commencement of the action, (iii) the indemnifying party does not diligently defend the action after assumption of the defense, or (iv) such indemnified party or parties shall have reasonably concluded, based upon written advice of counsel, that a conflict may arise between the positions of the indemnifying party and the indemnified party, or any of them, in conducting the defense of any such action or there may be legal defenses available to it or them which are different from or additional to those available to one or all of the indemnifying parties (in which case the indemnifying parties shall not have the right to direct the defense of such action on behalf of the indemnified party or parties), in any of which events such fees and expenses shall be borne by the indemnifying parties and shall be paid as incurred. No indemnifying party shall, without the prior written consent of the indemnified parties (which consent shall not be unreasonably delayed, withheld or denied), effect any settlement or compromise of, or consent to the entry of judgment with respect to, any pending or threatened claim, investigation, action or proceeding in respect of which indemnity or contribution may be or could have been sought by an indemnified party under this Section 7 or Section 8 hereof (whether or not the indemnified party is an actual or potential party thereto), unless (x) such settlement, compromise or judgment (i) includes an unconditional release of the indemnified party from all liability arising out of such claim, investigation, action or proceeding and (ii) does not include a statement as to an admission of fault, culpability or any failure to act, by or on behalf of the indemnified party, and (y) the indemnifying party confirms in writing its indemnification obligations hereunder with respect to such settlement, compromise or judgment.

8. Contribution. In order to provide for contribution in circumstances in which the indemnification provided for in Section 7 is for any reason held to be unavailable from any indemnifying party or is insufficient to hold harmless a party indemnified thereunder, the Company and the Underwriters shall contribute to the aggregate losses, claims, damages, liabilities and expenses of the nature contemplated by such indemnification provision (including any investigation, legal and other expenses incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding or any claims asserted, but after deducting in the case of losses, claims, damages, liabilities and expenses suffered by the Company, any contribution received by the Company from Persons, other than the Underwriters, who may also be liable for contribution, including Persons who control the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, officers of the Company who signed the Registration Statement and directors of the Company) as incurred to which the Company and one or more of the Underwriters may be subject, in such proportions as is appropriate to reflect the relative benefits received by the Company and the Underwriters from the Offering or, if such allocation is not permitted by applicable law, in such proportions as are appropriate to reflect not only the relative benefits referred to above but also the relative fault of the Company and the Underwriters in connection with the statements or omissions which resulted in such losses, claims, damages, liabilities or expenses, as well as any other relevant equitable considerations. The relative benefits received by the Company and the Underwriters shall be deemed to be in the same proportion as (x) the total proceeds from the Offering (net of underwriting discounts and commissions but before deducting expenses) received by the Company bears to (y) the underwriting discount or commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. The relative fault of each of the Company and of the Underwriters 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 Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this Section 8 were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section. The aggregate amount of losses, liabilities, claims, damages and expenses incurred by an indemnified party and referred to above in this Section 8 shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in investigating, preparing or defending against any litigation, or any investigation or proceeding by any judicial, regulatory or other legal or governmental agency or body, commenced or threatened, or any claim whatsoever based upon any such untrue or alleged untrue statement or omission or alleged omission. Notwithstanding the provisions of this Section 8: (i) no Underwriter shall be required to contribute any amount in excess of the aggregate discounts and commissions applicable to the Securities underwritten by it and distributed to the public and (ii) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 8, each Person, if any, who controls an Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act shall have the same rights to contribution as such Underwriter, and each Person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, each officer of the Company who shall have signed the Registration Statement and each director of the Company shall have the same rights to contribution as the Company, subject in each case to clauses (i) and (ii) of the immediately preceding sentence. Any party entitled to contribution will, promptly after receipt of notice of commencement of any action, suit or proceeding against such party in respect of which a claim for contribution may be made against another party or parties, notify each party or parties from whom contribution may be sought, but the omission to so notify such party or parties shall not relieve the party or parties from whom contribution may be sought from any obligation it or they may have under this Section 8 or otherwise. The obligations of the Underwriters to contribute pursuant to this Section 8 are several in proportion to the respective number of Securities to be purchased by each of the Underwriters hereunder and not joint.

9. Underwriter Default.

(a) If any Underwriter or Underwriters shall default in its or their obligation to purchase Shares hereunder, and if the securities with respect to which such default relates (the "**Default Securities**") do not (after giving effect to arrangements, if any, made by the Representative pursuant to subsection (b) below) exceed in the aggregate 10% of the number of Shares, each non-defaulting Underwriter, acting severally and not jointly, agrees to purchase from the Company that number of Default Securities that bears the same proportion of the total number of Default Securities then being purchased as the number of Shares set forth opposite the name of such Underwriter on Schedule I hereto bears to the aggregate number of Shares set forth opposite the names of the non-defaulting Underwriters, subject, however, to such adjustments to eliminate fractional shares as the Representative in its sole discretion shall make.

(b) In the event that the aggregate number of Default Securities exceeds 10% of the number of Shares, the Representative may in its discretion arrange for themselves or for another party or parties (including any non-defaulting Underwriter or Underwriters who so agree) to purchase the Default Securities on the terms contained herein. In the event that within 48 hours after such a default the Representative does not arrange for the purchase of the Default Securities as provided in this Section 9, this Agreement shall thereupon terminate, without liability on the part of the Company with respect thereto (except in each case as provided in Sections 5, 7, 8, 9 and 11(d)) or the Underwriters, but nothing in this Agreement shall relieve a defaulting Underwriter or Underwriters of its or their liability, if any, to the other Underwriters and the Company for damages occasioned by its or their default hereunder.

(c) In the event that any Default Securities are to be purchased by the non-defaulting Underwriters, or are to be purchased by another party or parties as aforesaid, the Representative or the Company shall have the right to postpone the Closing Date for a period, not exceeding five (5) Business Days, in order to effect whatever changes may thereby be necessary in the Registration Statement or the Prospectus or in any other documents and arrangements, and the Company agrees to file promptly any amendment or supplement to the Registration Statement or the Prospectus which, in the reasonable opinion of Underwriters' Counsel, may thereby be made necessary or advisable. The term "Underwriter" as used in this Agreement shall include any party substituted under this Section 9 with like effect as if it had originally been a party to this Agreement with respect to such Shares.

10. Survival of Representations and Agreements. All representations and warranties, covenants and agreements of the Company and the Underwriters contained in this Agreement or in certificates of officers of the Company submitted pursuant hereto, including the agreements contained in Sections 5, 10, 14 and 15, the indemnity agreements contained in Section 7 and the contribution agreements contained in Section 8 hereof, shall remain operative and in full force and effect regardless of any investigation made by or on behalf of any Underwriter or any controlling Person thereof or by or on behalf of the Company, any of its officers and directors or any controlling Person thereof, and shall survive delivery of and payment for the Securities to and by the Underwriters. The representations contained in Section 2 hereof and the covenants and agreements contained in Sections 5, 7, 8, this Section 10 and Sections 12, 13, 14 and 15 hereof shall survive any termination of this Agreement, including termination pursuant to Section 9 or 11 hereof. The representations and covenants contained in Sections 2, 3 and 4 hereof shall survive termination of this Agreement if any Securities are purchased pursuant to this Agreement.

11. Effective Date of Agreement; Termination.

(a) This Agreement shall become effective upon the later of: (i) receipt by the Representative and the Company of notification of the effectiveness of the Registration Statement or (ii) the execution of this Agreement. Notwithstanding any termination of this Agreement, the provisions of this Section 11 and of Sections 5, 7, 8, 12, 13, 14 and 15, inclusive, shall remain in full force and effect at all times after the execution hereof. If this Agreement is terminated after any Securities have been purchased hereunder, the provisions of Sections 2, 3 and 4 hereof shall survive termination of this Agreement.

(b) The Representative shall have the right to terminate this Agreement at any time prior to the consummation of the Closing if: (i) any domestic or international event or act or occurrence has materially disrupted, or in the opinion of the Representative will in the immediate future materially disrupt, the market for the Company's securities or securities in general; or (ii) trading on the New York Stock Exchange or the Nasdaq Capital Market shall have been suspended or been made subject to material limitations, or minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required, on the New York Stock Exchange or the Nasdaq Capital Market or by order of the Commission, FINRA or any other governmental authority having jurisdiction; or (iii) a banking moratorium has been declared by any state or federal authority or if any material disruption in commercial banking or securities settlement or clearance services shall have occurred; (iv) any downgrading shall have occurred in the Company's corporate credit rating or the rating accorded the Company's debt securities by any "nationally recognized statistical rating organization" (as defined for purposes of Rule 436(g) under the Securities Act) or if any such organization shall have been publicly announced that it has under surveillance or review, with possible negative implications, its rating of any of the Company's debt securities; or (v) (A) there shall have occurred any outbreak or escalation of hostilities or acts of terrorism involving the United States or there is a declaration of a national emergency or war by the United States or (B) there shall have been any other calamity or crisis or any change in political, financial or economic conditions if the effect of any such event in (A) or (B), in the judgment of the Representative, is so material and adverse that such event makes it impracticable or inadvisable to proceed with the offering, sale and delivery of the Shares on the terms and in the manner contemplated by the Prospectus.

(c) Any notice of termination pursuant to this Section 11 shall be in writing.

(d) If this Agreement shall be terminated pursuant to any of the provisions hereof or if the sale of the Securities provided for herein is not consummated because any condition to the obligations of the Underwriters set forth herein is not satisfied or because of any refusal, inability or failure on the part of the Company to perform any agreement herein or comply with any provision hereof, the Company will, subject to demand by the Representative, reimburse the Underwriters for those out-of-pocket expenses (including the reasonable fees and expenses of Underwriters' Counsel), actually incurred by the Underwriters in connection herewith.

12. Notices. All communications hereunder, except as may be otherwise specifically provided herein, shall be in writing, and:

if sent to the Representative or any Underwriter, shall be mailed, delivered, or faxed and confirmed in writing, to:

Boustead Securities, LLC
6 Venture, Suite 395
Irvine, CA 92618
Attention: Keith Moore
Fax: 815-301-8099

with a copy to Underwriters' Counsel at:

Loeb & Loeb LLP
345 Park Avenue
New York, New York 10154
Attention: Mitchell Nussbaum, Esq.
Fax: 212-407-4990

if sent to the Company, shall be mailed, delivered, or faxed and confirmed in writing to the Company and its counsel at the addresses set forth in the Registration Statement.

13. Parties; Limitation of Relationship. This Agreement shall inure solely to the benefit of, and shall be binding upon, the Underwriters, the Company and the controlling Persons, directors, officers, employees and agents referred to in Sections 7 and 8 hereof, and their respective successors and assigns, and no other Person shall have or be construed to have any legal or equitable right, remedy or claim under or in respect of or by virtue of this Agreement or any provision herein contained. This Agreement and all conditions and provisions hereof are intended to be for the sole and exclusive benefit of the parties hereto and said controlling Persons and their respective successors, officers, directors, heirs and legal representative, and it is not for the benefit of any other Person. The term "successors and assigns" shall not include a purchaser, in its capacity as such, of Securities from any of the Underwriters.

14. Submission of Jurisdiction; Governing Law:

This Agreement shall be governed by and construed in accordance with the laws of the State of New York. The Company irrevocably (a) submits to the jurisdiction of any court of the State of New York for the purpose of any suit, action, or other proceeding arising out of this Agreement, or any of the agreements or transactions contemplated by this Agreement, the Registration Statement and the Prospectus (each, a "**Proceeding**"), (b) agrees that all claims in respect of any Proceeding may be heard and determined in any such court, (c) waives, to the fullest extent permitted by law, any immunity from jurisdiction of any such court or from any legal process therein, (d) agrees not to commence any Proceeding other than in such courts, and (e) waives, to the fullest extent permitted by law, any claim that such Proceeding is brought in an inconvenient forum. EACH OF THE COMPANY (ON BEHALF OF ITSELF AND, TO THE FULLEST EXTENT PERMITTED BY LAW, ON BEHALF OF ITS RESPECTIVE EQUITY HOLDERS AND CREDITORS) HEREBY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY CLAIM BASED UPON, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT AND THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT, THE REGISTRATION STATEMENT, AND THE PROSPECTUS.

15. Entire Agreement. This Agreement, together with the exhibits, schedules and annexes attached hereto and as the same may be amended from time to time in accordance with the terms hereof, constitutes the entire agreement of the parties to this Agreement and supersedes all prior or contemporaneous written or oral agreements, understandings, promises and negotiations with respect to the subject matter hereof.

16. Severability. If any term or provision of this Agreement or the performance thereof shall be invalid or unenforceable to any extent, such invalidity or unenforceability shall not affect or render invalid or unenforceable any other provision of this Agreement and this Agreement shall be valid and enforced to the fullest extent permitted by law.

17. Amendment. This Agreement may only be amended by a written instrument executed by each of the parties hereto.

18. Waiver, etc. The failure of any of the parties hereto to at any time enforce any of the provisions of this Agreement shall not be deemed or construed to be a waiver of any such provision, nor to in any way effect the validity of this Agreement or any provision hereof or the right of any of the parties hereto to thereafter enforce each and every provision of this Agreement. No waiver of any breach, non-compliance or non-fulfillment of any of the provisions of this Agreement shall be effective unless set forth in a written instrument executed by the party or parties against whom or which enforcement of such waiver is sought; and no waiver of any such breach, non-compliance or non-fulfillment shall be construed or deemed to be a waiver of any other or subsequent breach, non-compliance or non-fulfillment.

19. No Fiduciary Relationship. The Company hereby acknowledges that the Underwriters are acting solely as underwriters in connection with the offering of the Company's Securities. The Company further acknowledge that the Underwriters are acting pursuant to a contractual relationship created solely by this Agreement entered into on an arm's length basis and in no event do the parties intend that the Underwriters act or be responsible as a fiduciary to the Company, its management, shareholders, creditors or any other person in connection with any activity that the Underwriters may undertake or have undertaken in furtherance of the offering of the Company's Securities, either before or after the date hereof. The Underwriters hereby expressly disclaim any fiduciary or similar obligations to the Company, either in connection with the transactions contemplated by this Agreement or any matters leading up to such transactions, and the Company hereby confirms its understanding and agreement to that effect. The Company hereby further confirms its understanding that no Underwriter has assumed an advisory or fiduciary responsibility in favor of the Company with respect to the Offering contemplated hereby or the process leading thereto, including any negotiation related to the pricing of the Securities; and the Company has consulted its own legal and financial advisors to the extent it has deemed appropriate in connection with this Agreement and the Offering. The Company and the Underwriters agree that they are each responsible for making their own independent judgments with respect to any such transactions. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against the Underwriters with respect to any breach or alleged breach of any fiduciary or similar duty to the Company in connection with the transactions contemplated by this Agreement or any matters leading up to such transactions.

20. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same instrument. Delivery of a signed counterpart of this Agreement by facsimile or other electronic transmission shall constitute valid and sufficient delivery thereof.

21. Headings. The headings herein are inserted for convenience of reference only and are not intended to be part of, or to affect the meaning or interpretation of, this Agreement.

22. Time is of the Essence. Time shall be of the essence of this Agreement. As used herein, the term "Business Day" shall mean any day other than a Saturday, Sunday or any day on which the major stock exchanges in New York, New York are not open for business.

[Signature Pages Follow]

If the foregoing correctly sets forth your understanding, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement among us.

Very truly yours,

BLUE WATER VACCINES, INC.

By: /s/ Joseph Hernandez
Name: Joseph Hernandez
Title: Chief Executive Officer

**Accepted by the Representative, acting for themselves and as
Representative of the Underwriters named on Schedule I attached hereto,
as of the date first written above:**

BOUSTEAD SECURITIES, LLC

By: /s/ Keith Moore
Name: Keith Moore
Title: Chief Executive Officer

SCHEDULE I

Name of Underwriter	Number of Shares Being Purchased
Boustead Securities, LLC	2,222,222
Total	

Schedule I

ANNEX II-A

FORM OF SECURITIES COUNSEL OPINION

ANNEX II-A

FORM OF CORPORATE COUNSEL OPINION

ANNEX III
FORM OF IP COUNSEL OPINION

ANNEX IV

FORM OF THE CHIEF EXECUTIVE OFFICER WITH RESPECT TO REGULATORY MATTERS

ANNEX V

Form of Representative's Warrant

ANNEX VI

FORM OF PRESS RELEASE

**AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
BLUE WATER VACCINES INC.**

Blue Water Vaccines Inc. (the "Corporation"), a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "General Corporation Law"), hereby certifies that:

FIRST. The name under which the Corporation was originally incorporated is Blue Water Vaccines Inc.

SECOND. The Certificate of Incorporation of the Corporation was originally filed with the Secretary of State of Delaware on October 26, 2018. A first Amended and Restated Certificate of Incorporation was filed on July 1, 2019 and amendment to the first Amended and Restated Certificate of Incorporation was filed on November 24, 2021. The Certificate of Incorporation of the Corporation as heretofore amended is hereby amended and restated pursuant to Sections 228, 242 and 245 of the General Corporation Law. All amendments to the Certificate of Incorporation reflected herein (this "Restated Certificate") have been duly adopted by the Board of Directors and stockholders of the Corporation in accordance with the provisions of such Sections. As required by Section 228 of the General Corporation Law, the Corporation has given written notice of the amendments reflected herein to all stockholders who did not consent in writing to these amendments.

THIRD. The Certificate of Incorporation of the Corporation shall be amended and restated to read in full as follows:

ARTICLE I.

The name of this corporation is Blue Water Vaccines Inc.

ARTICLE II.

The address of the Corporation's registered office in the State of Delaware is VCorp Services, LLC, 1013 Centre Road, Suite 403-B, in the City of Wilmington, County of New Castle, Delaware 19805. The name of its registered agent at such address is The VCorp Services, LLC.

ARTICLE III.

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware.

ARTICLE IV.

A. Classes of Stock and Authorized Shares. The Corporation is authorized to issue two classes of stock to be designated, respectively, Common Stock, par value \$0.0001 per share (the "Common Stock"), and Preferred Stock, par value \$0.0001 per share (the "Preferred Stock"). The total number of shares which the Corporation is authorized to issue is 260,000,000 shares, of which 250,000,000 shares shall be Common Stock, and 10,000,000 shares shall be Preferred Stock.

B. Rights, Powers, Preferences and Restrictions of Preferred Stock. The Board of Directors of the corporation is hereby expressly authorized, by resolution or resolutions thereof and the filing of a certificate pursuant to the applicable law of the State of Delaware (hereinafter referred to as a "Preferred Stock Designation"), to provide, out of the unissued shares of Preferred Stock, for one or more series of Preferred Stock and, with respect to each such series, to fix the number of shares constituting such series and the designation of such series, the voting powers, if any, of the shares of such series, and the preferences and relative, participating, optional or other special rights, if any, and any qualifications, limitations or restrictions thereof, of the shares of such series. The powers, preferences and relative, participating, optional and other special rights of each series of Preferred Stock, and the qualifications, limitations or restrictions thereof, if any, may differ from those of any and all other series at any time outstanding. Subject to Section A of this Article IV and any Preferred Stock Designation, the Board is also expressly authorized to increase or decrease the number of shares of any series of Preferred Stock subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. Unless otherwise expressly provided in the certificate of designations in respect of any series of Preferred Stock, in case the number of shares of such series shall be decreased in accordance with the foregoing sentence, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series.

C. Rights of Common Stock. The relative powers, rights, qualifications, limitations and restrictions granted to or imposed on the shares of the Common Stock are as follows:

1. General. The voting powers and dividend and liquidation rights and preferences, if any, of the holders of the Common Stock are subject to and qualified by the rights of the holders of the Preferred Stock of any series as may be designated by the Board of Directors upon any issuance of the Preferred Stock of any series.

2. Voting Rights. Except as may be otherwise provided by this Restated Certificate, a Preferred Stock Designation or by applicable law, the holders of the Common Stock shall be entitled to one vote for each share upon each matter presented to the stockholders of the Corporation; *provided, however*, that, except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Restated Certificate or a Preferred Stock Designation that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon pursuant to this Restated Certificate, a Preferred Stock Designation or the General Corporation Law. There shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the voting power of the capital stock of the Corporation entitled to vote thereon, voting as a single class, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

3. Dividends. Dividends may be declared and paid on the Common Stock from funds lawfully available therefor as and when determined by the Board of Directors and subject to any preferential dividend or other rights of any then outstanding Preferred Stock and to the requirements of applicable law.

4. Liquidation. Upon the dissolution or liquidation of the Corporation, whether voluntary or involuntary, holders of Common Stock will be entitled to receive all assets of the Corporation legally available for distribution to its stockholders, subject to any preferential or other rights of any then outstanding Preferred Stock.

ARTICLE V.

In furtherance and not in limitation of the powers conferred upon it by the General Corporation Law, and subject to the terms of any series of Preferred Stock, the Board of Directors is expressly authorized and empowered to adopt, amend or repeal the Bylaws of the Corporation. The stockholders may not adopt, amend, alter or repeal the Bylaws of the Corporation, or adopt any provision inconsistent therewith, unless such action is approved, in addition to any other vote required by this Restated Certificate, by the affirmative vote of the holders of at least 66 2/3% in voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon. Notwithstanding any other provisions of law, this Restated Certificate or the Bylaws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least 66 2/3% in voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article V.

ARTICLE VI.

A. Authority of Board. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors. In addition to the powers and authority expressly conferred by statute or by this Restated Certificate or the Bylaws of the Corporation, the Board of Directors is hereby empowered to exercise all such powers and do all such acts and things as may be exercised or done by the Corporation.

B. Board Size. Subject to the rights of the holders of any series of Preferred Stock to elect additional directors pursuant to any Preferred Stock Designation, the total number of authorized directors constituting the Board of Directors (the "Whole Board") shall be fixed from time to time exclusively by the Board of Directors pursuant to a resolution adopted by a majority of the Whole Board.

C. Classified Board Structure. From and after the Effective Time (defined below), the directors, other than any who may be elected by the holders of any series of Preferred Stock pursuant to any Preferred Stock Designation, shall be divided into three (3) classes hereby designated Class I, Class II and Class III. The Board of Directors may assign members of the Board of Directors already in office to such classes at the time such classification becomes effective. The term of office of the initial Class I directors shall expire at the first annual meeting of the stockholders to be held following the effectiveness of this Restated Certificate (the "Effective Time"), the term of office of the initial Class II directors shall expire at the second annual meeting of the stockholders following the Effective Time, and the term of office of the initial Class III directors shall expire at the third annual meeting of the stockholders following the Effective Time. At each annual meeting of stockholders, commencing with the first annual meeting of stockholders following the Effective Time, each of the successors elected to replace the directors of a Class whose term shall have expired at such annual meeting shall be elected to hold office until the third annual meeting next succeeding his or her election and until his or her respective successor shall have been duly elected and qualified or until his or her earlier death, resignation, or removal.

D. Removal; Vacancies. Any director may be removed from office by the stockholders of the Corporation only for cause by the affirmative vote of the holders of at least 66 2/3% of the outstanding voting power of the stockholders entitled to vote thereon. Vacancies occurring on the Board of Directors for any reason and newly created directorships resulting from an increase in the authorized number of directors may be filled exclusively pursuant to a resolution adopted by the Board of Directors and not by the stockholders. A person elected to fill a vacancy or newly created directorship shall hold office until the next election of the class for which such director shall have been chosen and until his or her successor shall be duly elected and qualified.

ARTICLE VII.

A. No Cumulative Voting. No stockholder will be permitted to cumulate votes in any election of directors. The election of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

B. Special Meetings. Special meetings of the stockholders may be called only by (i) the Board of Directors pursuant to a resolution adopted by a majority of the Whole Board; (ii) the chairman of the Board of Directors; or (iii) the chief executive officer or president of the Corporation.

C. No Stockholder Action by Written Consent. Subject to the rights of the holders of any series of Preferred Stock, any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders.

ARTICLE VIII.

A. Forum Selection. Subject to the last sentence in this Article VIII(A), and unless the Corporation consents in writing to the selection of an alternative forum, to the fullest extent permitted by the applicable law, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for any stockholder (including a beneficial owner) to bring (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim against the Corporation, its directors, officers or employees arising pursuant to any provision of the DGCL or this Restated Certificate or the By-Laws, or (iv) any action asserting a claim against the Corporation, its directors, officers or employees governed by the internal affairs doctrine and, if brought outside of Delaware, the stockholder bringing the suit will be deemed to have consented to service of process on such stockholder's counsel except any action (A) as to which the Court of Chancery in the State of Delaware determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), (B) which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or (C) for which the Court of Chancery does not have subject matter jurisdiction. Notwithstanding the foregoing, (i) the provisions of this Article VIII(A) will not apply to suits brought to enforce any liability or duty created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction and (ii) unless the Corporation consents in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933, as amended, or the rules and regulations promulgated thereunder.

B. Consent to Jurisdiction. If any action the subject matter of which is within the scope of Article VIII(A) immediately above is filed in a court other than a court located within the State of Delaware (a "**Foreign Action**") in the name of any stockholder, such stockholder shall be deemed to have consented to (i) the personal jurisdiction of the state and federal courts located within the State of Delaware in connection with any action brought in any such court to enforce Article VIII(A) immediately above (an "**FSC Enforcement Action**") and (ii) having service of process made upon such stockholder in any such FSC Enforcement Action by service upon such stockholder's counsel in the Foreign Action as agent for such stockholder.

C. Severability. If any provision or provisions of this *Article VIII* shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this *Article VIII* (including, without limitation, each portion of any sentence of this *Article VIII* containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

D. Deemed Notice. Any person or entity purchasing or otherwise acquiring or holding any interest in any security of the Corporation shall be deemed to have notice of and consented to this Article VIII.

ARTICLE IX.

A. The Corporation shall indemnify (and advance expenses to) its officers and directors to the full extent permitted by the General Corporation Law, as amended from time to time.

B. To the fullest extent permitted by law, no director of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability.

C. No amendment to or repeal of this provision, nor the adoption of any provision of the Restated Certificate inconsistent with this Article IX, shall apply to or have any effect on (1) the liability or alleged liability of any director of the Corporation or the (2) indemnification and advancement rights of any director or officer, in each case, for or with respect to any acts or omissions of such director or officer occurring prior to such amendment or repeal. If the General Corporation Law is amended to permit further elimination or limitation of the personal liability of directors or to permit greater indemnification or advancement rights of directors and officers, then the directors and officers of the Corporation shall be protected from liability (whether through exculpation, indemnification or advancement rights) the fullest extent permitted by the General Corporation Law as so amended.

ARTICLE X.

The Corporation reserves the right to amend, alter, change or repeal any provision contained in this Restated Certificate, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation. Notwithstanding any other provision of this Restated Certificate or applicable law and in addition to any affirmative vote of the holders of any particular class of stock of the Corporation required by applicable law or by a Preferred Stock Designation or this Restated Certificate, the affirmative vote of the holders of at least 66 2/3% of the voting power of the shares of the then outstanding voting stock of the Corporation entitled to vote thereon, voting together as a single class, shall be required to amend, repeal, or adopt any provisions of this Restated Certificate.

* * *

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been signed on behalf of the Corporation by its duly authorized officer effective this 23rd day of February, 2022.

BLUE WATER VACCINES INC.

/s/ Joseph Hernandez
Chief Executive Officer

AMENDED AND RESTATED BYLAWS
OF
BLUE WATER VACCINES INC.

ARTICLE I
Meeting of Stockholders

Section 1.1. *Annual Meetings.* If required by applicable law, an annual meeting of stockholders shall be held for the election of directors at such date, time and place, if any, either within or without the State of Delaware, as may be designated by resolution of the Board of Directors from time to time. Any other proper business may be transacted at the annual meeting.

Section 1.2. *Special Meetings.* Special meetings of stockholders for any purpose or purposes may be called at any time by the Chairman of the Board of Directors, or by the Chief Executive Officer or President, or by a resolution adopted by a majority of the whole Board of Directors, but such special meetings may not be called by any other person or persons. Business transacted at any special meeting of stockholders shall be limited to the purposes stated in the notice.

Section 1.3. *Notice of Meetings.* Whenever stockholders are required or permitted to take any action at a meeting, a notice of the meeting shall be given that shall state the place, if any, date and hour of the meeting, the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, the record date for determining the stockholders entitled to vote at the meeting (if such date is different from the record date for stockholders entitled to notice of the meeting) and, in the case of a special meeting, the purpose or purposes for which the meeting is called. To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting; *provided, however*, that in the event that the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made. In no event shall the public announcement of an adjournment of an annual meeting commence a new time period for the giving of a stockholder's notice as described above. If mailed, such notice shall be deemed to be given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation.

Section 1.4. *Adjournments.* Any meeting of stockholders, annual or special, may adjourn from time to time to reconvene at the same or some other place, and notice need not be given of any such adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting the corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. If after the adjournment a new record date for determination of stockholders entitled to vote is fixed for the adjourned meeting, the Board of Directors shall fix as the record date for determining stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote at the adjourned meeting, and shall give notice of the adjourned meeting to each stockholder of record as of the record date so fixed for notice of such adjourned meeting.

Section 1.5. *Quorum*. Except as otherwise provided by law, the certificate of incorporation or these bylaws, at each meeting of stockholders the presence in person or by proxy of the holders of a majority in voting power of the outstanding shares of stock entitled to vote at the meeting shall be necessary and sufficient to constitute a quorum. In the absence of a quorum, the stockholders so present may, by a majority in voting power thereof, adjourn the meeting from time to time in the manner provided in Section 1.4 of these bylaws until a quorum shall attend. Shares of its own stock belonging to the corporation or to another corporation, if a majority of the shares entitled to vote in the election of directors of such other corporation is held, directly or indirectly, by the corporation, shall neither be entitled to vote nor be counted for quorum purposes; provided, however, that the foregoing shall not limit the right of the corporation or any subsidiary of the corporation to vote stock, including but not limited to its own stock, held by it in a fiduciary capacity.

Section 1.6. *Organization*. Meetings of stockholders shall be presided over by the Chairman of the Board of Directors or, in his or her absence, by the Chief Executive Officer or, in his or her absence, by the President or, in his or her absence, by a Vice President or, in the absence of the foregoing persons, by a chairman designated by the Board of Directors or, in the absence of such designation, by a chairman chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his or her absence the chairman of the meeting may appoint any person to act as secretary of the meeting.

Section 1.7. *Voting; Proxies*. Except as otherwise provided by or pursuant to the provisions of the certificate of incorporation, each stockholder entitled to vote at any meeting of stockholders shall be entitled to one vote for each share of stock held by such stockholder which has voting power upon the matter in question. Each stockholder entitled to vote at a meeting of stockholders may authorize another person or persons to act for such stockholder by proxy, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. A proxy shall be irrevocable if it states that it is irrevocable and if, and only as long as, it is coupled with an interest sufficient in law to support an irrevocable power. A stockholder may revoke any proxy which is not irrevocable by attending the meeting and voting in person or by delivering to the Secretary of the corporation a revocation of the proxy or a new proxy bearing a later date. Voting at meetings of stockholders need not be by written ballot. At all meetings of stockholders for the election of directors at which a quorum is present a plurality of the votes cast shall be sufficient to elect. All other elections and questions presented to the stockholders at a meeting at which a quorum is present shall, unless otherwise provided by the certificate of incorporation, these bylaws, the rules or regulations of any stock exchange applicable to the corporation, or applicable law or pursuant to any regulation applicable to the corporation or its securities, be decided by the affirmative vote of the holders of a majority in voting power of the shares of stock of the corporation which are present in person or by proxy and entitled to vote thereon.

Section 1.8. *Fixing Date for Determination of Stockholders of Record.*

(a) In order that the corporation may determine the stockholders entitled to notice of any meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, unless otherwise required by law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If the Board of Directors so fixes a date, such date shall also be the record date for determining the stockholders entitled to vote at such meeting unless the Board of Directors determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for determination of stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote in accordance herewith at the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix a record date, which shall not be more than sixty (60) days prior to such other action. If no such record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 1.9. *List of Stockholders Entitled to Vote.* The Secretary shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting (provided, however, if the record date for determining the stockholders entitled to vote is less than ten (10) days before the date of the meeting, the list shall reflect the stockholders entitled to vote as of the tenth day before the meeting date), arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting at least ten (10) days prior to the meeting (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of meeting or (ii) during ordinary business hours at the principal place of business of the corporation. If the meeting is to be held at a place, then a list of stockholders entitled to vote at the meeting shall be produced and kept at the time and place of the meeting during the whole time thereof and may be examined by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. Except as otherwise provided by law, the stock ledger shall be the only evidence as to who are the stockholders entitled to examine the list of stockholders required by this Section 1.9 or to vote in person or by proxy at any meeting of stockholders.

Section 1.10. *Action by Written Consent of Stockholders.* Unless otherwise provided by the certificate of incorporation, any action required or permitted to be taken by the stockholders of the corporation must be effected at a duly held meeting of stockholders of the corporation at which a quorum is present or represented and may not be effected by any consent in writing by such stockholders.

Section 1.11. *Inspectors of Election.* The corporation shall, in advance of any meeting of stockholders, appoint one or more inspectors of election, who may be employees of the corporation, to act at the meeting or any adjournment thereof and to make a written report thereof. The corporation may designate one or more persons as alternate inspectors to replace any inspector who fails to act. In the event that no inspector so appointed or designated is able to act at a meeting of stockholders, the person presiding at the meeting shall appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath to execute faithfully the duties of inspector with strict impartiality and according to the best of his or her ability. The inspector or inspectors so appointed or designated shall (i) ascertain the number of shares of capital stock of the corporation outstanding and the voting power of each such share, (ii) determine the shares of capital stock of the corporation represented at the meeting and the validity of proxies and ballots, (iii) count all votes and ballots, (iv) determine and retain for a reasonable period a record of the disposition of any challenges made to any determination by the inspectors, and (v) certify their determination of the number of shares of capital stock of the corporation represented at the meeting and such inspectors' count of all votes and ballots. Such certification and report shall specify such other information as may be required by law. In determining the validity and counting of proxies and ballots cast at any meeting of stockholders of the corporation, the inspectors may consider such information as is permitted by applicable law. No person who is a candidate for an office at an election may serve as an inspector at such election.

Section 1.12. *Conduct of Meetings.* The date and time of the opening and the closing of the polls for each matter upon which the stockholders will vote at a meeting shall be announced at the meeting by the person presiding over the meeting. The Board of Directors may adopt by resolution such rules and regulations for the conduct of the meeting of stockholders as it shall deem appropriate. Except to the extent inconsistent with such rules and regulations as adopted by the Board of Directors, the person presiding over any meeting of stockholders shall have the right and authority to convene and (for any or no reason) to adjourn the meeting, to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such presiding person, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the presiding person of the meeting, may include, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting; (ii) rules and procedures for maintaining order at the meeting and the safety of those present; (iii) limitations on attendance at or participation in the meeting to stockholders entitled to vote at the meeting, their duly authorized and constituted proxies or such other persons as the presiding person of the meeting shall determine; (iv) restrictions on entry to the meeting after the time fixed for the commencement thereof; and (v) limitations on the time allotted to questions or comments by participants. The presiding person at any meeting of stockholders, in addition to making any other determinations that may be appropriate to the conduct of the meeting, shall, if the facts warrant, determine and declare to the meeting that a matter or business was not properly brought before the meeting and if such presiding person should so determine, such presiding person shall so declare to the meeting and any such matter or business not properly brought before the meeting shall not be transacted or considered. Unless and to the extent determined by the Board of Directors or the person presiding over the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

Section 1.13. *Notice of Stockholder Business and Nominations.*

(A) *Annual Meetings of Stockholders.* (1) Nominations of persons for election to the Board of Directors of the corporation and the proposal of other business to be considered by the stockholders may be made at an annual meeting of stockholders only (a) pursuant to the corporation's notice of meeting (or any supplement thereto), (b) by or at the direction of the Board of Directors or any committee thereof or (c) by any stockholder of the corporation who was a stockholder of record of the corporation at the time the notice provided for in this Section 1.13 is delivered to the Secretary of the corporation, who is entitled to vote at the meeting and who complies with the notice procedures set forth in this Section 1.13.

(2) For any nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (c) of paragraph (A)(1) of this Section 1.13, the stockholder must have given timely notice thereof in writing to the Secretary of the corporation and any such proposed business (other than the nominations of persons for election to the Board of Directors) must constitute a proper matter for stockholder action. To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the ninetieth (90th) day, nor earlier than the close of business on the one hundred twentieth (120th) day, prior to the first anniversary of the preceding year's annual meeting (provided, however, that in the event that no annual meeting was held in the previous year, the date of the annual meeting is more than thirty (30) days before or more than seventy (70) days after such anniversary date, notice by the stockholder must be so delivered not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made by the corporation). In no event shall the public announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above. Such stockholder's notice shall set forth: (a) as to each person whom the stockholder proposes to nominate for election as a director (i) all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to and in accordance with Section 14(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and the rules and regulations promulgated thereunder, and (ii) such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected; (b) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the bylaws of the corporation, the language of the proposed amendment), the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (c) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such stockholder, as they appear on the corporation's books, and of such beneficial owner, (ii) the class or series and number of shares of capital stock of the corporation which are owned beneficially and of record by such stockholder and such beneficial owner, (iii) a description of any agreement, arrangement or understanding with respect to the nomination or proposal between or among such stockholder and/or such beneficial owner, any of their respective affiliates or associates, and any others acting in concert with any of the foregoing, including, in the case of a nomination, the nominee, (iv) a description of any agreement, arrangement or understanding (including any derivative or short positions, profit interests, options, warrants, convertible securities, stock appreciation or similar rights, hedging transactions, and borrowed or loaned shares) that has been entered into as of the date of the stockholder's notice by, or on behalf of, such stockholder and such beneficial owners, whether or not such instrument or right shall be subject to settlement in underlying shares of capital stock of the corporation, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such stockholder or such beneficial owner, with respect to securities of the corporation, (v) a representation that the stockholder is a holder of record of stock of the corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to propose such business or nomination, (vi) a representation whether the stockholder or the beneficial owner, if any, intends or is part of a group which intends (a) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the corporation's outstanding capital stock required to approve or adopt the proposal or elect the nominee and/or (b) otherwise to solicit proxies or votes from stockholders in support of such proposal or nomination, and (vii) any other information relating to such stockholder and beneficial owner, if any, required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or for the election of directors in an election contest pursuant to and in accordance with Section 14(a) of the Exchange Act and the rules and regulations promulgated thereunder. The foregoing notice requirements of this Section 1.13 shall be deemed satisfied by a stockholder with respect to business other than a nomination if the stockholder has notified the corporation of his, her or its intention to present a proposal at an annual meeting in compliance with applicable rules and regulations promulgated under the Exchange Act and such stockholder's proposal has been included in a proxy statement that has been prepared by the corporation to solicit proxies for such annual meeting. The corporation may require any proposed nominee to furnish such other information as the corporation may reasonably require to determine the eligibility of such proposed nominee to serve as a director of the corporation.

(3) Notwithstanding anything in the second sentence of paragraph (A)(2) of this Section 1.13 to the contrary, in the event that the number of directors to be elected to the Board of Directors of the corporation at the annual meeting is increased effective after the time period for which nominations would otherwise be due under paragraph (A)(2) of this Section 1.13 and there is no public announcement by the corporation naming the nominees for the additional directorships at least one hundred (100) days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice required by this Section 1.13 shall also be considered timely, but only with respect to nominees for the additional directorships, if it shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the corporation.

(B) *Special Meetings of Stockholders.* Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the corporation's notice of meeting. Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the corporation's notice of meeting (1) by or at the direction of the Board of Directors or any committee thereof or (2) provided that the Board of Directors has determined that directors shall be elected at such meeting, by any stockholder of the corporation who is a stockholder of record at the time the notice provided for in this Section 1.13 is delivered to the Secretary of the corporation, who is entitled to vote at the meeting and upon such election and who complies with the notice procedures set forth in this Section 1.13. In the event the corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder entitled to vote in such election of directors may nominate a person or persons (as the case may be) for election to such position(s) as specified in the corporation's notice of meeting, if the stockholder's notice required by paragraph (A)(2) of this Section 1.13 shall be delivered to the Secretary at the principal executive offices of the corporation not earlier than the close of business on the one hundred twentieth (120th) day prior to such special meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such special meeting or the tenth (10th) day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. In no event shall the public announcement of an adjournment or postponement of a special meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above. The Board of Directors shall determine the time and place of such special meeting, which shall be held not less than thirty-five (35) nor more than one hundred twenty (120) days after the date of the receipt of the request.

(C) *General.* (1) Except as otherwise expressly provided in any applicable rule or regulation promulgated under the Exchange Act, only such persons who are nominated in accordance with the procedures set forth in this Section 1.13 shall be eligible to be elected at an annual or special meeting of stockholders of the corporation to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 1.13. Except as otherwise provided by law, the chairman of the meeting shall have the power and duty (a) to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the procedures set forth in this Section 1.13 (including whether the stockholder or beneficial owner, if any, on whose behalf the nomination or proposal is made solicited (or is part of a group which solicited) or did not so solicit, as the case may be, proxies or votes in support of such stockholder's nominee or proposal in compliance with such stockholder's representation as required by clause (A)(2)(c)(vi) of this Section 1.13) and (b) if any proposed nomination or business was not made or proposed in compliance with this Section 1.13, to declare that such nomination shall be disregarded or that such proposed business shall not be transacted. Notwithstanding the foregoing provisions of this Section 1.13, unless otherwise required by law, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual or special meeting of stockholders of the corporation to present a nomination or proposed business, such nomination shall be disregarded and such proposed business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the corporation. For purposes of this Section 1.13, to be considered a qualified representative of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or must be authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the meeting of stockholders.

(2) For purposes of this Section 1.13, “public announcement” shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission (the “SEC”) pursuant to Section 13, 14 or 15(d) of the Exchange Act.

(3) Notwithstanding the foregoing provisions of this Section 1.13, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations promulgated thereunder with respect to the matters set forth in this Section 1.13; provided however, that any references in these bylaws to the Exchange Act or the rules and regulations promulgated thereunder are not intended to and shall not limit any requirements applicable to nominations or proposals as to any other business to be considered pursuant to this Section 1.13 (including paragraphs (A)(1)(c) and (B) hereof), and compliance with paragraphs (A)(1)(c) and (B) of this Section 1.13 shall be the exclusive means for a stockholder to make nominations or submit other business (other than, as provided in the penultimate sentence of (A)(2), business other than nominations brought properly under and in compliance with Rule 14a-8 of the Exchange Act, as may be amended from time to time). Nothing in this Section 1.13 shall be deemed to affect any rights (a) of stockholders to request inclusion of proposals or nominations in the corporation’s proxy statement pursuant to applicable rules and regulations promulgated under the Exchange Act or (b) of the holders of any series of Preferred Stock to elect directors pursuant to any applicable provisions of the certificate of incorporation.

ARTICLE II
Board of Directors

Section 2.1. *Number; Qualifications.* Subject to the certificate of incorporation, the Board of Directors shall consist of one or more members, the number thereof to be determined from time to time by resolution of the Board of Directors. Directors need not be stockholders.

Section 2.2. *Election; Resignation; Vacancies.* The Board of Directors shall initially consist of the persons named as directors in the certificate of incorporation or elected by the incorporator of the corporation, and each director so elected shall hold office until the first annual meeting of stockholders or until his or her successor is duly elected and qualified. At the first annual meeting of stockholders and at each annual meeting thereafter, the stockholders shall elect directors each of whom shall hold office for a term of one year or until his or her successor is duly elected and qualified, subject to such director's earlier death, resignation, disqualification or removal. Any director may resign at any time upon notice to the corporation. Unless otherwise provided by law or the certificate of incorporation, any newly created directorship or any vacancy occurring in the Board of Directors for any cause may be filled only by a majority of the remaining members of the Board of Directors, although such majority is less than a quorum, or by a plurality of the votes cast at a meeting of stockholders, and each director so elected shall hold office until the expiration of the term of office of the director whom he or she has replaced or until his or her successor is elected and qualified.

Section 2.3. *Regular Meetings.* Regular meetings of the Board of Directors may be held at such places within or without the State of Delaware and at such times as the Board of Directors may from time to time determine.

Section 2.4. *Special Meetings.* Special meetings of the Board of Directors may be held at any time or place within or without the State of Delaware whenever called by (i) the Board of Directors pursuant to a resolution adopted by a majority of the Whole Board; (ii) the chairman of the Board of Directors; or (iii) the chief executive officer or president of the Corporation. Notice of a special meeting of the Board of Directors shall be given by the person or persons calling the meeting at least twenty-four hours before the special meeting.

Section 2.5. *Telephonic Meetings Permitted.* Members of the Board of Directors, or any committee designated by the Board of Directors, may participate in a meeting thereof by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting pursuant to this by-law shall constitute presence in person at such meeting.

Section 2.6. *Quorum; Vote Required for Action.* At all meetings of the Board of Directors the directors entitled to cast a majority of the votes of the whole Board of Directors shall constitute a quorum for the transaction of business. Except in cases in which the certificate of incorporation, these bylaws or applicable law otherwise provides, a majority of the votes entitled to be cast by the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors.

Section 2.7. *Organization.* Meetings of the Board of Directors shall be presided over by the Chairman of the Board of Directors or, in his or her absence, by a chairman chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his or her absence, the chairman of the meeting may appoint any person to act as secretary of the meeting.

Section 2.8. *Action by Unanimous Consent of Directors.* Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board of Directors, or of any committee thereof, may be taken without a meeting if all members of the Board of Directors or such committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic transmissions are filed with the minutes of proceedings of the board or committee in accordance with applicable law.

ARTICLE III

Committees

Section 3.1. *Committees.* The Board of Directors may designate one or more committees, each committee to consist of one or more of the directors of the corporation. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of the committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he, she or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in place of any such absent or disqualified member. Any such committee, to the extent permitted by law and to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it.

Section 3.2. *Committee Rules.* Unless the Board of Directors otherwise provides, each committee designated by the Board of Directors may make, alter and repeal rules for the conduct of its business. In the absence of such rules each committee shall conduct its business in the same manner as the Board of Directors conducts its business pursuant to Article II of these bylaws.

ARTICLE IV

Officers

Section 4.1. *Officers.* The officers of the corporation shall consist of a Chairman of the Board of Directors, a Chief Executive Officer, a Chief Financial Officer, a President, one or more Vice Presidents, a Secretary, a Treasurer, a Controller and such other officers as the Board of Directors may from time to time determine, each of whom shall be elected by the Board of Directors, each to have such authority, functions or duties as set forth in these bylaws or as determined by the Board of Directors. Each officer shall be chosen by the Board of Directors and shall hold office for such term as may be prescribed by the Board of Directors and until such person's successor shall have been duly chosen and qualified, or until such person's earlier death, disqualification, resignation or removal. The Board of Directors may elect or appoint co-Chairmen of the Board, co-Presidents or co-Chief Executive Officers and, in such case, references in these bylaws to the Chairman of the Board, the President or the Chief Executive Officer shall refer to either such co-Chairman of the Board, co-President or co-Chief Executive Officer, as the case may be.

Section 4.2. *Removal, Resignation and Vacancies.* Any officer of the corporation may be removed, with or without cause, by the Board of Directors, without prejudice to the rights, if any, of such officer under any contract to which it is a party. Any officer may resign at any time upon written notice to the corporation, without prejudice to the rights, if any, of the corporation under any contract to which such officer is a party. If any vacancy occurs in any office of the corporation, the Board of Directors may elect a successor to fill such vacancy for the remainder of the unexpired term and until a successor shall have been duly chosen and qualified.

Section 4.3. *Chairman of the Board of Directors.* The Chairman of the Board of Directors shall be deemed an officer of the corporation, subject to the control of the Board of Directors, and shall report directly to the Board of Directors.

Section 4.4. *Chief Executive Officer.* The Chief Executive Officer shall have general supervision and direction of the business and affairs of the corporation, shall be responsible for corporate policy and strategy, and shall report directly to the Chairman of the Board of Directors. Unless otherwise provided in these bylaws, all other officers of the corporation shall report directly to the Chief Executive Officer or as otherwise determined by the Chief Executive Officer. The Chief Executive Officer shall, if present and in the absence of the Chairman of the Board of Directors, preside at meetings of the stockholders and of the Board of Directors.

Section 4.5. *Chief Financial Officer.* The Chief Financial Officer shall exercise all the powers and perform the duties of the office of the chief financial officer and in general have overall supervision of the financial operations of the corporation. The Chief Financial Officer shall, when requested, counsel with and advise the other officers of the corporation and shall perform such other duties as such officer may agree with the Chief Executive Officer or as the Board of Directors may from time to time determine.

Section 4.6. *President.* The President shall be the chief operating officer of the corporation, with general responsibility for the management and control of the operations of the corporation. The President shall have the power to affix the signature of the corporation to all contracts that have been authorized by the Board of Directors or the Chief Executive Officer. The President shall, when requested, counsel with and advise the other officers of the corporation and shall perform such other duties as such officer may agree with the Chief Executive Officer or as the Board of Directors may from time to time determine.

Section 4.7. *Vice Presidents.* The Vice President shall have such powers and duties as shall be prescribed by his or her superior officer or the Chief Executive Officer. A Vice President shall, when requested, counsel with and advise the other officers of the corporation and shall perform such other duties as such officer may agree with the Chief Executive Officer or as the Board of Directors may from time to time determine.

Section 4.8. *Treasurer.* The Treasurer shall supervise and be responsible for all the funds and securities of the corporation, the deposit of all moneys and other valuables to the credit of the corporation in depositories of the corporation, borrowings and compliance with the provisions of all indentures, agreements and instruments governing such borrowings to which the corporation is a party, the disbursement of funds of the corporation and the investment of its funds, and in general shall perform all of the duties incident to the office of the Treasurer. The Treasurer shall, when requested, counsel with and advise the other officers of the corporation and shall perform such other duties as such officer may agree with the Chief Executive Officer or as the Board of Directors may from time to time determine.

Section 4.9. *Controller*. The Controller shall be the chief accounting officer of the corporation. The Controller shall, when requested, counsel with any advice the other officers of the corporation and shall perform such other duties as such officer may agree with the Chief Executive Officer or the Chief Financial Officer or as the Board of Directors may from time to time determine.

Section 4.10. *Secretary*. The powers and duties of the Secretary are: (i) to act as Secretary at all meetings of the Board of Directors, of the committees of the Board of Directors and of the stockholders and to record the proceedings of such meetings in a book or books to be kept for that purpose; (ii) to see that all notices required to be given by the corporation are duly given and served; (iii) to act as custodian of the seal of the corporation and affix the seal or cause it to be affixed to all certificates of stock of the corporation and to all documents, the execution of which on behalf of the corporation under its seal is duly authorized in accordance with the provisions of these bylaws; (iv) to have charge of the books, records and papers of the corporation and see that the reports, statements and other documents required by law to be kept and filed are properly kept and filed; and (v) to perform all of the duties incident to the office of Secretary. The Secretary shall, when requested, counsel with and advise the other officers of the corporation and shall perform such other duties as such officer may agree with the Chief Executive Officer or as the Board of Directors may from time to time determine.

Section 4.11. *Additional Matters*. The Chief Executive Officer and the Chief Financial Officer of the corporation shall have the authority to designate employees of the corporation to have the title of Vice President, Assistant Vice President, Assistant Treasurer or Assistant Secretary. Any employee so designated shall have the powers and duties determined by the officer making such designation. The persons upon whom such titles are conferred shall not be deemed officers of the corporation unless elected by the Board of Directors.

ARTICLE V

Stock

Section 5.1. *Certificates*. The shares of the corporation shall be represented by certificates, provided that the Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the corporation. Every holder of stock represented by certificates shall be entitled to have a certificate signed by or in the name of the corporation by the Chairman of the Board of Directors or the President or a Vice President, and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary, of the corporation certifying the number of shares owned by such holder in the corporation. Any of or all the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if such person were such officer, transfer agent, or registrar at the date of issue.

Section 5.2. *Lost, Stolen or Destroyed Stock Certificates; Issuance of New Certificates.* The corporation may issue a new certificate of stock in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the corporation may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative, to give the corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate.

ARTICLE VI
Indemnification and Advancement of Expenses

Section 6.1. *Right to Indemnification.* The corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (a "Covered Person") who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "proceeding"), by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of the corporation or, while a director or officer of the corporation, is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such Covered Person. Notwithstanding the preceding sentence, except as otherwise provided in Section 6.3, the corporation shall be required to indemnify a Covered Person in connection with a proceeding (or part thereof) commenced by such Covered Person only if the commencement of such proceeding (or part thereof) by the Covered Person was authorized in the specific case by the Board of Directors of the corporation.

Section 6.2. *Prepayment of Expenses.* The corporation shall to the fullest extent not prohibited by applicable law pay the expenses (including attorneys' fees) incurred by a Covered Person in defending any proceeding in advance of its final disposition, *provided, however*, that, to the extent required by law, such payment of expenses in advance of the final disposition of the proceeding shall be made only upon receipt of an undertaking by the Covered Person to repay all amounts advanced if it should be ultimately determined that the Covered Person is not entitled to be indemnified under this Article VI or otherwise.

Section 6.3. *Claims.* If a claim for indemnification (following the final disposition of such proceeding) or advancement of expenses under this Article VI is not paid in full within thirty (30) days after a written claim therefor by the Covered Person has been received by the corporation, the Covered Person may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim to the fullest extent permitted by law. In any such action the corporation shall have the burden of proving that the Covered Person is not entitled to the requested indemnification or advancement of expenses under applicable law.

Section 6.4. *Non-exclusivity of Rights.* The rights conferred on any Covered Person by this Article VI shall not be exclusive of any other rights which such Covered Person may have or hereafter acquire under any statute, provision of the certificate of incorporation, these bylaws, agreement, vote of stockholders or disinterested directors or otherwise.

Section 6.5. *Other Sources.* The corporation's obligation, if any, to indemnify or to advance expenses to any Covered Person who was or is serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, enterprise or nonprofit entity shall be reduced by any amount such Covered Person may collect as indemnification or advancement of expenses from such other corporation, partnership, joint venture, trust, enterprise or non-profit enterprise.

Section 6.6. *Amendment or Repeal.* Any right to indemnification or to advancement of expenses of any Covered Person arising hereunder shall not be eliminated or impaired by an amendment to or repeal of these bylaws after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought.

Section 6.7. *Other Indemnification and Advancement of Expenses.* This Article VI shall not limit the right of the corporation, to the extent and in the manner permitted by law, to indemnify and to advance expenses to persons other than Covered Persons when and as authorized by appropriate corporate action.

ARTICLE VII
Miscellaneous

Section 7.1. *Fiscal Year.* The fiscal year of the corporation shall be determined by resolution of the Board of Directors.

Section 7.2. *Manner of Notice.* Except as otherwise provided herein or permitted by applicable law, notices to directors and stockholders shall be in writing and delivered personally or mailed to the directors or stockholders at their addresses appearing on the books of the corporation. Without limiting the manner by which notice otherwise may be given effectively to stockholders, and except as prohibited by applicable law, any notice to stockholders given by the corporation under any provision of applicable law, the certificate of incorporation, or these bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Any such consent shall be revocable by the stockholder by written notice to the corporation. Any stockholder who fails to object in writing to the corporation, within sixty (60) days of having been given written notice by the corporation of its intention to send the single notice permitted under this Section 7.3, shall be deemed to have consented to receiving such single written notice. Notice to directors may be given by telecopier, telephone or other means of electronic transmission.

Section 7.3. *Waiver of Notice of Meetings of Stockholders, Directors and Committees.* Any waiver of notice, given by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at nor the purpose of any regular or special meeting of the stockholders, directors, or members of a committee of directors need be specified in a waiver of notice.

Section 7.4. *Form of Records.* Any records maintained by the corporation in the regular course of its business, including its stock ledger, books of account, and minute books, may be kept on, or by means of, or be in the form of, any information storage device or method, provided that the records so kept can be converted into clearly legible paper form within a reasonable time.

Section 7.5. *Amendment of Bylaws.* These bylaws may be altered, amended or repealed, and new bylaws made, by the Board of Directors or by the affirmative vote of sixty-six and two-thirds percent of the outstanding voting power of the corporation.

Representative's Warrant

THE REGISTERED HOLDER OF THIS PURCHASE WARRANT BY ITS ACCEPTANCE HEREOF, AGREES THAT IT WILL NOT SELL, TRANSFER OR ASSIGN THIS PURCHASE WARRANT EXCEPT AS HEREIN PROVIDED AND THE REGISTERED HOLDER OF THIS PURCHASE WARRANT AGREES THAT IT WILL NOT SELL, TRANSFER, ASSIGN, PLEDGE OR HYPOTHECATE THIS PURCHASE WARRANT FOR A PERIOD OF ONE HUNDRED EIGHTY (180) DAYS FOLLOWING THE COMMENCEMENT OF SALES OF THE OFFERING TO ANYONE OTHER THAN (I) BOUSTEAD SECURITIES, LLC, OR (II) ANY SUCCESSOR, OFFICER, MANAGER OR MEMBER OF BOUSTEAD SECURITIES, LLC (OR TO OFFICERS, MANAGERS OR MEMBERS OF ANY SUCH SUCCESSOR OR MEMBER); OR (III) TO MEMBERS OF THE UNDERWRITING SYNDICATE OR SELLING GROUP. (SEE SECTION 4(a)).

COMMON STOCK PURCHASE WARRANT

BLUE WATER VACCINES, INC.

Warrant Shares: 111,111

Original Issuance Date: February 23, 2022

THIS COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, Boustead Securities, LLC 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 February 23, 2022 (the "Initial Exercise Date") and on or prior to 5:00 p.m. (New York City time) on February 11, 2027 (the "Termination Date") but not thereafter, to subscribe for and purchase from Blue Water Vaccines, Inc., a Delaware corporation (the "Company"), up to 111,111 shares of Common Stock (as subject to adjustment hereunder, the "Warrant Shares"). 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. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Underwriting Agreement (the "Agreement"), dated February 17, 2022 by and between the Company and Boustead Securities, LLC, as representative of the several underwriters.

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 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 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) Business 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 \$10.35 (which is 115% of the offering price per share of Common Stock in the offering contemplated by the Agreement) (the "Exercise Price").

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering the Warrant Shares, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then, provided that the Trading Price, as defined below, is equal to or greater than the Exercise Price, on the Termination Date, this Warrant may also 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)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. 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 (such applicable price for (a), the "Trading Price");

(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 characteristics of the Warrants being exercised and the holding period of the Warrants being exercised may be tacked on to the holding period of the Warrant Shares. The Company agrees not to take any position contrary to this Section 2(c).

"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. (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 the Common Stock is traded on OTCQB or OTCQX, the volume weighted average sales 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 in the "Pink Sheets" published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of 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 Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“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 L.P. (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 the Common Stock is traded on OTCQB or OTCQX, the volume weighted average sales price of the shares of 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 in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of 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 Holder and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“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, the New York Stock Exchange, OTCQB or OTCQX (or any successors to any of the foregoing).

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. In the event the Company does not object to a Notice of Exercise pursuant to Section 2(a) hereof, 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 or resale of the Warrant Shares by Holder, or (B) if there is no effective registration statement and the Warrant is exercised via cashless exercise at a time when such Warrant Shares would be eligible for resale under Rule 144 by a non-affiliate of the Company, such Warrant Shares are delivered to Holder’s broker, and the Company receives a statement from Holder’s broker that it has received instructions to sell the Warrant Shares or that it would take responsibility that the sales of the Warrant Shares will only be made if the Warrant Shares are eligible to be sold under Rule 144, 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 earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company (unless the Warrant is exercised via cashless exercise) and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (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 within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. 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 use commercially reasonable efforts 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.

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 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, 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 shares of Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of Warrants with an aggregate sale price giving rise to such purchase obligation of \$10,000 of shares of Common Stock, 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 down 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 transfer 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, non-exercised 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 non-converted 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. 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 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% of the number of shares of 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 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 61st 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 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 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 Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, 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, other than cash (including, without limitation, any distribution of 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, 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, 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 shares 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 or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding 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. 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(e) 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 shares of Common Stock are 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 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 Common Stock of record shall be entitled to exchange their shares of 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 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. Pursuant to FINRA Rule 5110(g)(1) and the Agreement, neither this Warrant nor any Warrant Shares issued upon exercise of this Warrant shall be sold, transferred, assigned, pledged or hypothecated, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the securities by any person for a period of one hundred eighty (180) days immediately following the date of effectiveness or commencement of sales of the offering pursuant to which this Warrant is being issued, except the transfer of any security:

(i) by operation of law or by reason of reorganization of the Company;

(ii) to any FINRA member firm participating in the offering and the officers and partners thereof, if all securities so transferred remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period;

(iii) if the aggregate amount of securities of the Company held by the Holder or related person do not exceed 1% of the securities being offered;

(iv) that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or

(v) the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period.

Subject to the foregoing restrictions, compliance with any applicable securities laws, and the conditions set forth in Section 4(d) hereof, 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 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 Original Issuance 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.

d) Representation by the Holder. The Holder, by the acceptance hereof, represents and warrants that it is acquiring this Warrant and, upon any exercise hereof, will acquire the Warrant Shares issuable upon such exercise, for its own account and not with a view to or for distributing or reselling such Warrant or Warrant Shares or any part thereof in violation of the Securities Act or any applicable state securities law, except pursuant to sales registered or exempted under the Securities Act.

Section 5. Registration Rights

a) Demand Registration.

i. Grant of Right. The Company, upon written demand (“Initial Demand Notice”) of the Holder(s) of at least 51% of the Warrant Shares (“Majority Holders”), agrees to register on two occasions only (each, a “Demand Registration”) under the Securities Act all or any portion of the Warrant Shares requested by the Majority Holders in the Initial Demand Notice (the “Registrable Securities”). On such occasion, the Company will file a registration statement covering the Registrable Securities within 60 days after receipt of the Initial Demand Notice and to have such registration statement declared effective as soon as possible thereafter. A demand for registration may be made at any time during which the Majority Holders hold any of the Warrant Shares. Notwithstanding the foregoing, the Company shall not be required to effect a registration pursuant to this Section 5 a): (A) with respect to securities that are not Registrable Securities; (B) during any Scheduled Black-Out Period; (C) if the aggregate offering price of the Registrable Securities to be offered is less than \$250,000, unless the Registrable Securities to be offered constitute all of the then-outstanding Registrable Securities; or (D) within 180 days after the effective date of a prior registration in respect of the Common Stock, including a Demand Registration (or, in the event that Holders were prevented from including any Registrable Securities requested to be included in a Piggyback Registration pursuant to Section 5(b), within 90 days after the effective date of such prior registration in respect of the Common Stock. For purposes of this Agreement, a “Scheduled Black-Out Period” shall mean the periods from and including the day that is ten days prior to the last day of a fiscal quarter of the Company to and including the day that is two days after the day on which the Company publicly releases its earnings for such fiscal quarter. The Initial Demand Notice shall specify the number of shares of Registrable Securities proposed to be sold and the intended method(s) of distribution thereof. The Company will notify all holders of the Warrant Shares of the demand within ten days from the date of the receipt of any such Initial Demand Notice. Each holder of the Warrant Shares who wishes to include all or a portion of such holder’s Warrant Shares in the Demand Registration (each such holder including shares of Registrable Securities in such registration, a “Demanding Holder”) shall so notify the Company within 15 days after the receipt by the holder of the notice from the Company. Upon any such request, the Demanding Holders shall be entitled to have their Warrant Shares included in the Demand Registration. The term of the Demand Registration shall not be more than five-years from the Effective Date.

ii. Effective Registration. A registration will not count as a Demand Registration until the registration statement filed with the Commission with respect to such Demand Registration has been declared effective and the Company has complied with all of its obligations under this Warrant with respect thereto.

iii. Terms. In connection with the first Demand Registration, the Company shall bear all fees and expenses attendant to registering the Registrable Securities, including the reasonable expenses of one legal counsel selected by the Holders to represent them in connection with the sale of the Registrable Securities. In connection with the second Demand Registration, the Holders shall bear all fees and expenses attendant to registering the Registrable Securities including the reasonable expenses of the Company’s legal counsel. The Company agrees to qualify or register the Registrable Securities in such states as are reasonably requested by the Majority Holder(s); provided, however, that in no event shall the Company be required to register the Registrable Securities in a state in which such registration would cause (i) the Company to be obligated to qualify to do business in such state, or would subject the Company to taxation as a foreign corporation doing business in such jurisdiction or (ii) the principal shareholders of the Company to be obligated to escrow their shares of Common Stock of the Company. The Company shall cause any registration statement filed pursuant to the demand rights granted under Section 5(a)(iii) to remain effective until all Registrable Securities are sold.

iv. Notwithstanding the foregoing, if the Board of Directors of the Company determines in its good faith judgment that the filing of a registration statement in connection with a Demand Registration (i) would be significantly detrimental to the Company in that such registration would interfere with a material corporate transaction or (ii) would require the disclosure of material non-public information concerning the Company that at the time is not, in the good faith judgment of the Board of Directors, in the best interests of the Company to disclose and is not, in the opinion of the Company's counsel, otherwise required to be disclosed, then the Company shall have the right to defer such filing for the period during which such registration would be significantly detrimental under clause (i) or would require such disclosure under clause (ii); provided, however, that (x) the Company may not defer such filing for a period of more than 90 days after receipt of any demand by the Holders and (y) the Company shall not exercise its right to defer a Demand Registration more than once in any 12-month period. The Company shall give written notice of its determination to the Holders to defer the filing and of the fact that the purpose for such deferral no longer exists, in each case, promptly after the occurrence thereof.

b) Piggy-Back Registration.

i. Piggy-Back Rights. If at any time during the five year period after the Effective Date, and the Registration Statement is no longer effective, the Company proposes to file a registration statement under the Securities Act with respect to an offering of equity securities, or securities or other obligations exercisable or exchangeable for, or convertible into, equity securities, by the Company for its own account or for shareholders of the Company for their account (or by the Company and by shareholders of the Company including, without limitation, pursuant to Section 5(a)), other than a registration statement (i) filed in connection with any employee share option or other benefit plan, (ii) for an exchange offer or offering of securities solely to the Company's existing shareholders, or (iii) for a dividend reinvestment plan, then the Company shall (x) give written notice of such proposed filing to the holders of Registrable Securities as soon as practicable but in no event less than ten days before the anticipated filing date, which notice shall describe the amount and type of securities to be included in such offering, the intended method(s) of distribution, and the name of the proposed managing underwriter or underwriters, if any, of the offering, and (y) offer to the holders of Registrable Securities in such notice the opportunity to register the sale of such number of Warrant Shares held by such holder (the "Piggy-Back Registrable Securities"), as such holders may request in writing within five days following receipt of such notice (a "Piggy-Back Registration"). The Company shall cause such Piggy-Back Registrable Securities to be included in such registration and shall use its commercially reasonable efforts to cause the managing underwriter or underwriters of a proposed underwritten offering to permit the Piggy-Back Registrable Securities requested to be included in a Piggy-Back Registration on the same terms and conditions as any similar securities of the Company and to permit the sale or other disposition of such Piggy-Back Registrable Securities in accordance with the intended method(s) of distribution thereof. All holders of Piggy-Back Registrable Securities proposing to distribute their securities through a Piggy-Back Registration that involves an underwriter or underwriters shall enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such Piggy-Back Registration.

ii. Reduction of Offering. If the managing underwriter or underwriters for a Piggy-Back Registration that is to be an underwritten offering advises the Company and the holders of Registrable Securities in writing that the dollar amount or number of shares of Common Stock which the Company desires to sell, taken together with shares of Common Stock, if any, as to which registration has been requested pursuant to written contractual arrangements with persons other than the holders of Piggy-Back Registrable Securities hereunder, the Piggy-Back Registrable Securities as to which registration has been requested under this Section 5(b), and the shares of Common Stock, if any, as to which registration has been requested pursuant to the written contractual piggy-back registration rights of other shareholders of the Company, exceeds the maximum dollar amount or maximum number of shares that can be sold in such offering without adversely affecting the proposed offering price, the timing, the distribution method, or the probability of success of such offering (such maximum dollar amount or maximum number of shares, as applicable, the "Maximum Number of Shares"), then the Company shall include in any such registration:

(x) If the registration is undertaken for the Company's account: (A) first, the Common Stock or other securities that the Company desires to sell that can be sold without exceeding the Maximum Number of Shares; and (B) second, subject to the requirements of registration rights granted by the Company prior to the date hereof, to the extent that the Maximum Number of Shares has not been reached under the foregoing clause (A), up to the amount of shares of Common Stock or other securities that can be sold without exceeding the Maximum Number of Shares, on a pro rata basis, from (i) Piggy-Back Registrable Securities as to which registration has been requested and (ii) the Common Stock or other securities for the account of other persons that the Company is obligated to register pursuant to written contractual piggy-back registration rights with such persons;

(y) If the registration is a Demand Registration undertaken at the demand of holders of Registrable Securities, subject to the requirements of registration rights granted by the Company prior to the date hereof, (A) first, the shares of Common Stock or other securities for the account of the demanding persons that can be sold without exceeding the Maximum Number of Shares; (B) second, to the extent that the Maximum Number of Shares has not been reached under the foregoing clause (A), the shares of Common Stock or other securities comprised of Piggy-Back Registrable Securities, pro rata, as to which registration has been requested pursuant to the terms hereof that can be sold without exceeding the Maximum Number of Shares; and (C) third, to the extent that the Maximum Number of Shares has not been reached under the foregoing clauses (A) and (B), the shares of Common Stock or other securities for the account of other persons that the Company is obligated to register pursuant to written contractual arrangements with such persons, that can be sold without exceeding the Maximum Number of Shares.

iii. Withdrawal. Any holder of Piggy-Back Registrable Securities may elect to withdraw such holder's request for inclusion of such Piggy-Back Registrable Securities in any Piggy-Back Registration by giving written notice to the Company of such request to withdraw prior to the effectiveness of the registration statement. The Company (whether on its own determination or as the result of a withdrawal by persons making a demand pursuant to written contractual obligations) may withdraw a registration statement at any time prior to the effectiveness of the registration statement. Notwithstanding any such withdrawal, the Company shall pay all expenses incurred by the holders of Piggy-Back Registrable Securities in connection with such Piggy-Back Registration as provided in Section 5(b)(iv).

iv. Terms. The Company shall bear all fees and expenses attendant to registering the Piggy-Back Registrable Securities, including the expenses of one legal counsel selected by the Holders to represent them in connection with the sale of the Piggy-Back Registrable Securities but the Holders shall pay any and all underwriting commissions related to the Piggy-Back Registrable Securities. In the event of such a proposed registration, the Company shall furnish the then Holders of outstanding Piggy-Back Registrable Securities with not less than fifteen days written notice prior to the proposed date of filing of such registration statement. Such notice to the Holders shall continue to be given for each applicable registration statement filed (during the period in which the Warrant is exercisable) by the Company until such time as all of the Piggy-Back Registrable Securities have been registered and sold. The Holders of the Piggy-Back Registrable Securities shall exercise the "piggy-back" rights provided for herein by giving written notice, within ten days of the receipt of the Company's notice of its intention to file a registration statement. The Company shall cause any registration statement filed pursuant to the above "piggyback" rights to remain effective for at least nine (9) months from the date that the Holders of the Piggy-Back Registrable Securities are first given the opportunity to sell all of such securities.

c) General Terms. These additional terms shall relate to registration under Sections 5(a) above:

i. Indemnification.

(w) The Company shall, to the fullest extent permitted by applicable law, indemnify the Holder(s) of the Registrable Securities to be sold pursuant to any registration statement hereunder and each person, if any, who controls such Holders within the meaning of Section 15 of the Act or Section 20(a) of the Exchange Act against all loss, claim, damage, expense or liability (including all reasonable attorneys' fees and other expenses reasonably incurred in investigating, preparing or defending against litigation, commenced or threatened, or any claim whatsoever whether arising out of any action between the underwriter and the Company or between the underwriter and any third party or otherwise) to which any of them may become subject under the Act, the Exchange Act or otherwise, arising from such registration statement; provided, however, that, with respect to any Holder of Registrable Securities, this indemnity shall not apply to any loss, liability, claim, damage or expense to the extent arising out of an untrue statement or omission or alleged untrue statement or omission made in reliance upon and in conformity with written information furnished to the Company by such Holder expressly for use in the registration statement (or any amendment thereto), or any preliminary prospectus or the prospectus (or any amendment or supplement thereto).

(x) The Holder(s) of the Registrable Securities to be sold pursuant to such registration statement, and their successors and assigns, shall severally, and not jointly, indemnify the Company, its officers and directors and each person, if any, who controls the Company within the meaning of Section 15 of the Act or Section 20(a) of the Exchange Act, against all loss, claim, damage, expense or liability (including all reasonable attorneys' fees and other expenses reasonably incurred in investigating, preparing or defending against any claim whatsoever) to which they may become subject under the Act, the Exchange Act or otherwise, arising from information furnished by or on behalf of such Holders, or their successors or assigns, in writing, for specific inclusion in such registration statement (or any amendment thereto), or any preliminary prospectus or the prospectus (or any amendment or supplement thereto).

(y) Each indemnified party shall give prompt notice to each indemnifying party of any action commenced against it in respect of which indemnity may be sought hereunder, but failure to so notify an indemnifying party shall not relieve the indemnifying party from any liability it may have under this Agreement, except to the extent that the indemnifying party is prejudiced thereby. If it so elects, after receipt of such notice, an indemnifying party, jointly with any other indemnifying parties receiving such notice, may assume the defense of such action with counsel chosen by it; provided, however, that the indemnified party shall be entitled to participate in (but not control) the defense of such action with counsel chosen by it, the reasonable fees and expenses of which shall be paid by such indemnified party, unless a conflict would arise if one counsel were to represent both the indemnified party and the indemnifying party, in which case the reasonable fees and expenses of counsel to the indemnified party shall be paid by the indemnifying party or parties. In no event shall the indemnifying party or parties be liable for a settlement of an action with respect to which they have assumed the defense if such settlement is effected without the written consent of such indemnifying party, or for the reasonable fees and expenses of more than one counsel for (i) the Company, its officers, directors and controlling persons as a group, and (ii) the selling Holders and their controlling persons as a group, in each case, in connection with any one action or separate but similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances; provided, however, that if, in the reasonable judgment of an indemnified party, a conflict of interest may exist between such indemnified party and the Company or any other of such indemnified parties with respect to such claim, the indemnifying party shall be obligated to pay the reasonable fees and expenses of such additional counsel.

(z) If the indemnification provided for in or pursuant to Section 5(b)(i) is due in accordance with the terms hereof, but held by a court of competent jurisdiction to be unavailable or unenforceable in respect of any losses, claims, damages, liabilities or expenses referred to therein, then each applicable indemnifying party, in lieu of indemnifying such indemnified party, shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages, liabilities or expenses in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the statements or omissions which result in such losses, claims, damages, liabilities or expenses as well as any other relevant equitable considerations. The relative fault of the indemnifying party on the one hand and of the indemnified party on the other 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 indemnifying party or by the indemnified party, and by such party's relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

ii. Documents Delivered to Holders. The Company shall furnish the initial Holder a signed counterpart, addressed to the initial Holder, of (i) an opinion of counsel to the Company, dated the effective date of such registration statement (or, if such registration includes an underwritten public offering, an opinion dated the date of the closing under any underwriting agreement related thereto), and (ii) if such registration statement is filed in connection of an underwritten public offering, a "cold comfort" letter dated the effective date of such registration statement (or, if such registration includes an underwritten public offering, a letter dated the date of the closing under the underwriting agreement) signed by the independent public accountants who have issued a report on the Company's financial statements included in such registration statement, in each case covering substantially the same matters with respect to such registration statement (and the prospectus included therein) and, in the case of such accountants' letter, with respect to events subsequent to the date of such financial statements, as are customarily covered in opinions of issuer's counsel and in accountants' letters delivered to underwriters in underwritten public offerings of securities.

iii. Supplemental Prospectus. Each Holder agrees, that upon receipt of any notice from the Company of the happening of any event as a result of which the prospectus included in the registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing, such Holder will immediately discontinue disposition of Registrable Securities pursuant to the registration statement covering such Registrable Securities until such Holder's receipt of the copies of a supplemental or amended prospectus, and, if so desired by the Company, such Holder shall deliver to the Company (at the expense of the Company) or destroy (and deliver to the Company a certificate of such destruction) all copies, other than permanent file copies then in such Holder's possession, of the prospectus covering such Registrable Securities current at the time of receipt of such notice. Immediately after discovering of such an event which causes the prospectus included in the registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing, the Company shall prepare and file, as soon as practicable, a supplement or amendment to the prospectus so that such registration statement does not include any untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing and distribute such supplement or amendment to each Holder.

Section 6. 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 any rights of a Holder to receive Warrant Shares on a “cashless exercise” pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall 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 (which, in the case of the Warrant, shall not include the posting of any bond), 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 Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business 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 non-assessable 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 non-assessable 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) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Agreement.

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) Non-waiver 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. Without limiting any other provision of this Warrant or the Agreement, 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 notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Agreement.

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 shares of 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 and the Holder.

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.

(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.

BLUE WATER VACCINES, INC.

By: /s/ Joseph Hernandez

Name: Joseph Hernandez

Title: Chief Executive Officer

Blue Water Vaccines Announces Pricing of approximate \$20M Initial Public Offering

CINCINNATI, Feb. 17, 2022 (GLOBE NEWSWIRE) -- Blue Water Vaccines, Inc. (“BWV” or “Blue Water Vaccines” or the “Company”), a biopharmaceutical company developing vaccines, today announced the pricing of its initial public offering of 2,222,222 shares of its common stock at a public offering price of \$9.00 per share. The shares are expected to begin trading on the Nasdaq Capital Market under the ticker symbol “BWV” on February 18, 2022.

The aggregate gross proceeds to BWV from the initial public offering are expected to be approximately \$20 million prior to deducting underwriting discounts, commissions, and other estimated offering expenses. The offering is expected to close on February 23, 2022, subject to the satisfaction of customary closing conditions.

Boustead Securities, LLC is acting as the sole book-running manager for the offering.

The Securities and Exchange Commission (“SEC”) declared effective a registration statement on Form S-1 relating to these securities on February 11, 2022. A final prospectus relating to this offering will be filed with the SEC. The offering is being made only by means of a prospectus, copies of which, when available, may be obtained from; Boustead Securities, LLC, Attention: Prospectus Department, 6 Venture, Suite 325, Irvine, CA 92618, or by telephone at 949-502-4408, or by email at offerings@boustead1828.com. Investors may also obtain these documents at no cost by visiting the SEC’s website at <http://www.sec.gov>.

Before you invest, you should read the prospectus and other documents the Company has filed or will file with the SEC for more complete information about the Company and the offering.

This press release shall not constitute an offer to sell or the solicitation of an offer to buy these securities, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

About Bluewater Vaccines

Blue Water Vaccines, Inc. is a biopharmaceutical company focused on developing transformational vaccines to address significant health challenges globally. Headquartered in Cincinnati, OH, the company holds the rights to proprietary technology developed at the University of Oxford, Cincinnati Children’s Hospital Medical Center (CCHMC), and St. Jude Children’s Hospital. The company is developing a universal flu vaccine that will provide protection from all virulent strains and a *Streptococcus pneumoniae* (pneumococcus) vaccine candidate, designed to specifically prevent the highly infectious middle ear infections, known as Acute Otitis Media (AOM), in children. Additionally, Blue Water Vaccines has licensed a novel norovirus (NoV) S&P nanoparticle versatile virus-like particle (VLP) vaccine platform from CCHMC to develop vaccines for multiple infectious diseases, including norovirus/rotavirus and malaria among others. For more information, visit www.bluewatervaccines.com.

Cautionary Note Concerning Forward-Looking Statements

This press release contains “forward-looking statements,” including with respect to the initial public offering. No assurance can be given that the offering discussed above will be completed on the terms described, or at all, or that the proceeds of the offering will be used as indicated. Forward-looking statements are subject to numerous conditions, many of which are beyond the control of the Company, including those set forth in the Risk Factors section of the Company’s registration statement for the initial public offering filed with the SEC. Copies are available on the SEC’s website, www.sec.gov. Although the Company believes that the expectations reflected in its forward-looking statements are reasonable, it cannot guarantee future results. The Company has no obligation, and does not undertake any obligation, to update or revise any forward-looking statement made in this press release to reflect changes since the date of this press release, except as required by law.

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Blue Water Vaccines Announces Closing of Initial Public Offering

CINCINNATI, OH, February 23, 2022 (GLOBE NEWSWIRE) -- Blue Water Vaccines Inc. (“BWV” or “Blue Water Vaccines” or the “Company”), a biopharmaceutical company developing vaccines, today announced the closing of its initial public offering of 2,222,222 shares of its common stock at a public offering price of \$9.00 per share. The shares began trading on the Nasdaq Capital Market under the ticker symbol “BWV” on February 18, 2022.

The aggregate gross proceeds to BWV from the initial public offering were approximately \$20 million, prior to deducting underwriting discounts, commissions, and other estimated offering expenses.

Boustead Securities, LLC acted as the sole book-running manager for the offering.

The Securities and Exchange Commission (“SEC”) declared effective a registration statement on Form S-1 relating to these securities on February 11, 2022. A final prospectus relating to this offering was filed with the Securities and Exchange Commission on February 22, 2022. The offering was made only by means of a prospectus, copies of which may be obtained from; Boustead Securities, LLC, Attention: Prospectus Department, 6 Venture, Suite 325, Irvine, CA 92618, or by telephone at 949-502-4408 or by email at offerings@boustead1828.com. Investors may also obtain these documents at no cost by visiting the SEC’s website at <http://www.sec.gov>.

This press release shall not constitute an offer to sell or the solicitation of an offer to buy these securities, nor shall there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

About Bluewater Vaccines

Blue Water Vaccines, Inc. is a biopharmaceutical company focused on developing transformational vaccines to address significant health challenges globally. Headquartered in Cincinnati, OH, the company holds the rights to proprietary technology developed at the University of Oxford, Cincinnati Children’s Hospital Medical Center (CCHMC), and St. Jude Children’s Hospital. The company is developing a universal flu vaccine that will provide protection from all virulent strains and a *Streptococcus pneumoniae* (pneumococcus) vaccine candidate, designed to specifically prevent the highly infectious middle ear infections, known as Acute Otitis Media (AOM), in children. Additionally, Blue Water Vaccines has licensed a novel norovirus (NoV) S&P nanoparticle versatile virus-like particle (VLP) vaccine platform from CCHMC to develop vaccines for multiple infectious diseases, including norovirus/rotavirus and malaria among others. For more information, visit www.bluewatervaccines.com.

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