
**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): July 2, 2021

BioSig Technologies, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-38659
(Commission File Number)

26-433375
(IRS Employer
Identification No.)

54 Wilton Road, 2nd Floor
Westport, Connecticut
(Address of principal executive offices)

06880
(Zip Code)

(203) 409-5444
(Registrant's telephone number, including area code)

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

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

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

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of exchange on which registered</u>
Common Stock, par value \$0.001 per share	BSGM	The NASDAQ Capital Market

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

Emerging growth company

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

Item 1.01 Entry Into a Material Definitive Agreement.

On July 2, 2021, BioSig Technologies, Inc. (the “Company”) entered into an underwriting agreement (the “Underwriting Agreement”) with Laidlaw & Company (UK) Ltd. (the “Underwriter”), relating to an underwritten public offering of 2,500,000 shares (the “Shares”) of the Company’s common stock, \$0.001 par value per share (the “Common Stock”). All of the Shares are being sold by the Company. The public offering price of the Shares is \$4.00 per share, and the Underwriter has agreed to purchase the Shares from the Company pursuant to the Underwriting Agreement at a price of \$3.68 per share. After the underwriting discount, but before offering expenses payable by it, the Company expects to receive net proceeds from the offering of \$9,200,000. Pursuant to the Underwriting Agreement, the Company has also granted the Underwriter an option to purchase up to 375,000 additional shares of Common Stock, or 15% of the number of Shares sold in the offering (the “Option Shares”), at a price of \$3.68 per share, for a period of 30 days from the date of the Underwriting Agreement.

Pursuant to the Underwriting Agreement, the Company has agreed to issue to the Underwriter or its designees warrants to purchase up to an aggregate 125,000 shares of Common Stock, or 5% of the number of Shares sold in the offering (the “Underwriter Warrants” and together with the Common Stock issuable upon exercise of the Underwriter Warrants, the “Underwriter Securities”). The Underwriter Warrants will be exercisable following the date of issuance and ending five years from the date of the execution of the Underwriting Agreement, at a price per share equal to \$4.80 per share (120% of the public offering price per Share) and are exercisable on a “cashless” basis. The Company also agreed to reimburse the Underwriter for certain of their out-of-pocket expenses incurred in connection with the offering, including, among other things, the reasonable fees and expenses of counsel, which fees and expenses may not exceed \$100,000.

The Shares will be issued pursuant to the Company’s shelf registration statement on Form S-3 (Registration Statement No. 333-251859) previously filed with the Securities and Exchange Commission (the “Commission”) and declared effective by the Commission on January 12, 2021. A preliminary prospectus supplement and prospectus supplement and the accompanying prospectus relating to the offering have been filed with the Commission. The offering is expected to close on or about July 7, 2021, subject to satisfaction of customary closing conditions.

The Underwriting Agreement contains customary representations and warranties, agreements and obligations, conditions to closing and termination provisions. The Underwriting Agreement provides for indemnification by the Underwriter of the Company, its directors and certain of its executive officers, and by the Company of the Underwriter, for certain liabilities, including liabilities arising under the Securities Act of 1933, as amended, and affords certain rights of contribution with respect thereto. The legal opinion of Haynes and Boone, LLP relating to the legality of the issuance and sale of the Shares is attached as Exhibit 5.1 to this Current Report on Form 8-K.

The description of terms and conditions of the Underwriting Agreement and the form of Underwriter Warrant set forth herein do not purport to be complete and are qualified in their entirety by the full text of the Underwriting Agreement and the form of Underwriter Warrant, which are attached hereto as Exhibit 1.1 and 4.1, respectively.

Item 3.02 Unregistered Sales of Equity Securities.

The information contained in Item 1.01 of this Current Report on Form 8-K in relation to the Underwriter Securities is incorporated herein by reference.

Item 8.01 Other Events.

On July 1, 2021, the Company issued a press release announcing the proposed public offering of the Shares. A copy of the press release is attached as Exhibit 99.1 to this Current Report on Form 8-K and is hereby incorporated by reference herein.

On July 2, 2021, the Company issued a press release announcing the pricing of the public offering of the Shares. A copy of the press release is attached as Exhibit 99.2 to this Current Report on Form 8-K and is hereby incorporated by reference herein.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
1.1	Underwriting Agreement, dated July 2, 2021, by and between BioSig Technologies, Inc. and Laidlaw & Company (UK) Ltd.
4.1	Form of Underwriter Warrant
5.1	Legal Opinion of Haynes and Boone, LLP
23.1	Consent of Haynes and Boone, LLP (contained in Exhibit 5.1)
99.1	Press Release, dated July 1, 2021
99.2	Press Release, dated July 2, 2021
104	Cover Page Interactive Data File (formatted as Inline XBRL)

SIGNATURES

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

BIOSIG TECHNOLOGIES, INC.

Date: July 6, 2021

By: /s/ Kenneth L. Londoner
Name: Kenneth L. Londoner
Title: Executive Chairman

2,500,000 Shares

BIOSIG TECHNOLOGIES, INC.

Common Stock

UNDERWRITING AGREEMENT

July 2, 2021

Laidlaw & Company (UK) Ltd.
521 Fifth Avenue, 12th Floor
New York, NY 10175
As Representative of the several
Underwriters named in Schedule I attached hereto,

Ladies and Gentlemen:

BioSig Technologies, Inc., a Delaware corporation (the “**Company**”), subject to the terms and conditions herein, proposes to sell to the underwriters (the “**Underwriters**”) named in Schedule I attached to this agreement (this “**Agreement**”) 2,500,000 shares (the “**Firm Shares**”) of the Company’s common stock, par value \$0.001 per share (the “**Common Stock**”). In addition, the Company proposes to grant to the Underwriters an option to purchase up to 375,000 additional shares of Common Stock on the terms set forth in Section 2 (the “**Option Shares**”). The Firm Shares and the Option Shares, if and to the extent such option is exercised, are hereinafter collectively called the “**Shares**.”

The Company also proposes to issue to the Representative (as defined below), or its designees, in their individual capacity and not as the Representative of the several Underwriters, warrants (the “**Warrants**”) to purchase up to an aggregate of 125,000 shares of Common Stock (the “**Warrant Shares**”), such Warrants to have the terms and conditions described in the Prospectus (as defined below) and shall otherwise be in form and substance reasonably acceptable to the Representative.

1. *Representations, Warranties and Agreements of the Company.* The Company represents, warrants and agrees with each of the Underwriters that:

(a) A registration statement on Form S-3 (No. 333-251859) relating to the Shares, including a related base prospectus has (i) been prepared by the Company in conformity with the requirements of the Securities Act of 1933, as amended (the “**Securities Act**”), and the rules and regulations (the “**Rules and Regulations**”) of the Securities and Exchange Commission (the “**Commission**”) thereunder; (ii) been filed with the Commission under the Securities Act and is not proposed to be amended; and (iii) become effective under the Securities Act. Copies of such registration statement and any amendment thereto have been delivered by the Company to you as the representative (the “**Representative**”) of the Underwriters. As used in this Agreement:

- (i) “**Applicable Time**” means 8:00 a.m. (New York City time) on July 2, 2021;
- (ii) “**Effective Date**” means the date and time as of which such registration statement, or the most recent post-effective amendment thereto, was declared effective by the Commission;
- (iii) “**Issuer Free Writing Prospectus**” means any “issuer free writing prospectus” (as defined in Rule 433 under the Securities Act) relating to the offering of the Shares in the final 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);
- (iv) “**Preliminary Prospectus**” means any preliminary prospectus relating to the Shares, including the documents incorporated or deemed to be incorporated by reference therein under the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”) pursuant to Item 12 of Form S-3 under the Securities Act, filed by the Company with the Commission with the consent of the Underwriters pursuant to Rule 424(b) of the Rules and Regulations;
- (v) “**Pricing Disclosure Package**” means, as of the Applicable Time, the most recent Preliminary Prospectus, together with the information included in Schedule II hereto and each Issuer Free Writing Prospectus filed or used by the Company on or before the Applicable Time, other than a road show that is an Issuer Free Writing Prospectus but is not required to be filed under Rule 433 of the Rules and Regulations.
- (vi) “**Prospectus**” means the final prospectus, in the form first furnished or made available to the Underwriters for use in connection with the offering of the Shares, including the documents incorporated or deemed to be incorporated by reference therein under the Exchange Act pursuant to Item 12 of Form S-3 under the Securities Act, as filed with the Commission pursuant to Rule 424(b) of the Rules and Regulations;
- (vii) “**Registration Statement**” means such shelf registration statement, as amended by any post-effective amendments thereto to such time, including any exhibits and schedules thereto at such time, the documents incorporated or deemed to be incorporated by reference therein under the Exchange Act at such time pursuant to Item 12 of Form S-3 under the Securities Act and documents otherwise deemed to be a part thereof as of such time pursuant to Rule 430B under the Rules and Regulations (“**Rule 430B**”); *provided, however*, that the “Registration Statement” without reference to a time means such registration statement as amended by any post-effective amendments thereto as of the time of the first contract of sale for the Shares, which time shall be considered the “new effective date” of such registration statement with respect to the Shares within the meaning of paragraph (f)(2) of Rule 430B, including the exhibits and schedules thereto as of such time, the documents incorporated or deemed incorporated by reference therein

under the Exchange Act at such time pursuant to Item 12 of Form S-3 under the Securities Act and the documents otherwise deemed to be a part thereof as of such time pursuant to Rule 430B;

(viii) “**Testing-the-Waters Communication**” means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Securities Act; and

(ix) “**Written Testing-the-Waters Communication**” means any Testing-the-Waters Communication that is a “written communication” within the meaning thereof set forth in Rule 405 under the Securities Act.

Any reference to the “**most recent Preliminary Prospectus**” shall be deemed to refer to the latest Preliminary Prospectus filed pursuant to Rule 424(b) of the Rules and Regulations prior to or on the date hereof. Any reference herein to the term “**Registration Statement**” shall be deemed to include the abbreviated registration statement to register additional shares of Common Stock under Rule 462(b) of the Rules and Regulations (the “**Rule 462(b) Registration Statement**”). The Commission has not issued any order preventing or suspending the use of any Preliminary Prospectus or the Prospectus or suspending the effectiveness of the Registration Statement, including any Rule 462(b) Registration Statement, and no proceeding or examination for such purpose has been instituted or threatened by the Commission.

(b) The Company was not at the time of initial filing of the Registration Statement, is not on the date hereof and will not be on the applicable Delivery Date an “ineligible issuer” (as defined in Rule 405).

(c) The Registration Statement conformed and will conform in all material respects on the Effective Date, on the date hereof and on each applicable Delivery Date, and any post-effective amendment to the Registration Statement filed after the date hereof will conform in all material respects when filed, to the requirements of the Securities Act and the Rules and Regulations. The Company is eligible to use Form S-3 pursuant to General Instruction I.B.1. of such form, and the Company has met all the conditions for incorporation by reference pursuant to Item 12 and the General Instructions to Form S-3. The most recent Preliminary Prospectus conformed, and the Prospectus will conform when filed with the Commission pursuant to Rule 424(b) of the Rules and Regulations and on each applicable Delivery Date, in all material respects, to the requirements of the Securities Act and the Rules and Regulations. The documents incorporated by reference in the Registration Statement, the Preliminary Prospectus or the Prospectus conformed when filed with the Commission, in all material respects to the requirements of the Exchange Act or the Securities Act, as applicable, and the Rules and Regulations.

(d) The Registration Statement does not and did not as of the Effective Date, contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; *provided* that no representation or warranty is made as to information contained in or omitted from the Registration Statement, or any Rule 462(b) Registration Statement, or any post-effective

amendment thereto, made in reliance upon and in conformity with information relating to any Underwriter furnished to the Company in writing by the Representative on behalf of any Underwriter specifically for inclusion therein, which information is specified in Section 8(e) (the “**Underwriter Information**”).

(e) The Prospectus will not, as of its date and on each applicable Delivery Date, contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided* that no representation or warranty is made as to information contained in or omitted from the Prospectus in reliance upon and in conformity with the Underwriter Information.

(f) The documents incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, when they were filed with the Commission, conformed in all material respects to the requirements of the Exchange Act, and none of such documents contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; and any further documents so filed and incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, when such documents are filed with the Commission, will conform in all material respects to the requirements of the Exchange Act and will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(g) The Pricing Disclosure Package did not, as of the Applicable Time, contain an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided* that no representation or warranty is made as to information contained in or omitted from the Pricing Disclosure Package in reliance upon and in conformity with the Underwriter Information.

(h) Each Issuer Free Writing Prospectus (including, without limitation, any road show that is a free writing prospectus under Rule 433), as of its issue date and at all subsequent times throughout the completion of the public offer and sale of the Shares, when considered together with the Pricing Disclosure Package as of the Applicable Time, did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. No Issuer Free Writing Prospectus conflicts or will conflict with the information contained in the Registration Statement, Pricing Disclosure Package or the Prospectus, including any document incorporated by reference therein.

(i) Each Issuer Free Writing Prospectus conformed or will conform in all material respects to the requirements of the Securities Act and the Rules and Regulations on the date of first use, and the Company has complied with all prospectus delivery and any filing requirements applicable to such Issuer Free Writing Prospectus pursuant to the

Rules and Regulations. The Company has not made any offer relating to the Shares that would constitute an Issuer Free Writing Prospectus without the prior written consent of the Representative. The Company has retained in accordance with the Rules and Regulations all Issuer Free Writing Prospectuses that were not required to be filed pursuant to the Rules and Regulations. The Company has taken all actions necessary so that any “road show” (as defined in Rule 433 of the Rules and Regulations) in connection with the offering of the Shares will not be required to be filed pursuant to the Rules and Regulations.

(j) The Company (i) has not engaged in any Testing-the-Waters Communication other than Testing-the-Waters Communications with the consent of the Representative with entities that are reasonably believed to be 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 and (ii) has not authorized anyone other than the Representative to engage in Testing-the-Waters Communications. The Company reconfirms that the Representative has been authorized to act on its behalf in undertaking Testing-the-Waters Communications. The Company has not distributed or approved for distribution any Written Testing-the-Waters Communications other than those listed on Schedule III hereto.

(k) Each Written Testing-the-Waters Communication prepared or approved by the Company in writing, did not, as of the Applicable Time, when taken together with the Pricing Disclosure Package, contain an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided* that no representation or warranty is made as to information contained in or omitted from such Written Testing-the-Waters Communication listed on Schedule III hereto in reliance upon and in conformity with the Underwriter Information. Each Written Testing-the-Waters Communications did not, as of the Applicable Time, and at all times through the completion of the public offer and sale of the Shares will not, include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, the Pricing Disclosure Package or the Prospectus.

(l) Each of the Company and its subsidiaries (as defined in Section 17) has been duly organized, is validly existing and in good standing as a corporation or other business entity under the laws of its jurisdiction of organization; each of the Company and its subsidiaries (as defined in Section 17) is duly qualified to do business and in good standing as a foreign corporation or other business entity in each jurisdiction in which its ownership or lease of property or the conduct of its businesses requires such qualification, except where the failure to be so qualified or in good standing would not, individually or in the aggregate, reasonably be expected to have a material adverse effect on (i) the condition (financial or otherwise), results of operations, management, stockholders’ equity, properties, business or prospects of the Company and its subsidiaries taken as a whole, (ii) the ability of the Company to consummate the transactions contemplated hereby or (iii) the ability of the Company to list the Common Stock on, or result in the delisting of the Common Stock from, The Nasdaq Stock Market (in each case, a “**Material Adverse Effect**”); and each of the Company and its subsidiaries has all power and authority necessary to own or hold its properties and to conduct the businesses in which it is engaged

and as disclosed in the Pricing Disclosure Package. The Company does not own or control, directly or indirectly, any corporation, association or other entity other than ViralClear Pharmaceuticals, Inc., which is a “significant subsidiary” (as defined in Rule 405), and NeuroClear Technologies, Inc.

(m) The Company has an authorized capitalization as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, and all of the issued shares of capital stock of the Company have been duly authorized and validly issued, are fully paid and non-assessable, conform to the description thereof contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus, and were issued in compliance with federal and state securities laws and not in violation of any preemptive right, resale right, right of first refusal or similar right. All of the Company’s options, warrants and other rights to purchase or exchange any securities for shares of the Company’s capital stock have been duly authorized and validly issued, conform to the description thereof contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus and were issued in compliance with federal and state securities laws. All of the issued shares of capital stock of each subsidiary of the Company have been duly authorized and validly issued, are fully paid and non-assessable and are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims, except for such liens, encumbrances, equities or claims as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(n) With respect to the stock options (the “**Stock Options**”) granted pursuant to the stock-based compensation plans of the Company and its subsidiaries (the “**Company Stock Plans**”), (i) each Stock Option intended to qualify as an “incentive stock option” under Section 422 of the Code so qualifies, (ii) each grant of a Stock Option was duly authorized no later than the date on which the grant of such Stock Option was by its terms to be effective (the “**Grant Date**”) by all necessary corporate action, including, as applicable, approval by the board of directors of the Company (or a duly constituted and authorized committee thereof) and any required stockholder approval by the necessary number of votes or written consents, and the award agreement governing such grant (if any) was duly executed and delivered by each party thereto, (iii) each such grant was made in accordance with the terms of the Company Stock Plans, the Exchange Act and all other applicable laws and regulatory rules or requirements, including the rules of the Nasdaq Capital Market and any other exchange on which Company securities were traded at the time of such grant, and (iv) each such grant was properly accounted for in accordance with GAAP in the financial statements (including the related notes) of the Company and disclosed in the Company’s filings with the Commission in accordance with the Exchange Act and all other applicable laws. The Company has not knowingly granted, and there is no and has been no policy or practice of the Company of granting, Stock Options prior to, or otherwise coordinating the grant of Stock Options with, the release or other public announcement of material information regarding the Company or its subsidiaries or their results of operations or prospects.

(o) The Shares to be issued and sold by the Company to the Underwriters hereunder have been duly authorized and, upon payment and delivery in accordance with this Agreement, will be validly issued, fully paid and non-assessable, will conform to the

description thereof contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus, will be issued in compliance with federal and state securities laws and will be free of statutory and contractual preemptive rights, rights of first refusal and similar rights. The Warrant Shares issuable upon the exercise of the Warrants have been duly authorized and reserved for issuance and, when issued and paid for upon the due exercise of the Warrants, will be validly issued, fully paid and non-assessable, will conform to the description thereof contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus, will be issued in compliance with federal and state securities laws and will be free of statutory and contractual preemptive rights, rights of first refusal and similar rights.

(p) The Company has all requisite corporate power and authority to execute, deliver and perform its obligations under this Agreement and the Warrants; and all action required to be taken for the due and proper authorization, execution and delivery of this Agreement and the Warrants and the consummation by it of the transactions contemplated hereby and thereby has been duly and validly taken. This Agreement has been duly and validly authorized, executed and delivered by the Company. The Warrants have been duly and validly authorized and, upon execution and delivery thereof by the Company, will constitute legal, valid and binding obligations of the Company enforceable against the Company in accordance with their respective terms, except (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, and (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies. This Agreement conforms, and the Warrants when issued will conform, to the descriptions thereof contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(q) The execution, delivery and performance of this Agreement and the Warrants, the consummation of the transactions contemplated hereby and the application of the proceeds from the sale of the Shares as described under "Use of Proceeds" in the Registration Statement, the Pricing Disclosure Package and the Prospectus will not (i) conflict with or result in a breach or violation of any of the terms or provisions of, impose any lien, charge or encumbrance upon any property or assets of the Company and its subsidiaries, or constitute a default under, any indenture, mortgage, deed of trust, loan agreement, license or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the property or assets of the Company or any of its subsidiaries is subject; (ii) result in any violation of the provisions of the charter or by-laws (or similar organizational documents) of the Company or any of its subsidiaries; or (iii) result in any violation of any statute or any judgment, order, decree, rule or regulation of any court or governmental agency or body, domestic or foreign, having jurisdiction over the Company or any of its subsidiaries or any of their properties or assets, except, with respect to clauses (i) and (iii), for such conflicts, breaches, violations, liens, charges, encumbrances or defaults that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(r) No consent, approval, authorization or order of, or filing, registration or qualification with, any person (including any court or governmental agency or body having jurisdiction over the Company or any of its subsidiaries or any of their properties or assets) is required to be obtained by the Company for the execution, delivery and performance of this Agreement or the Warrants, the consummation of the transactions contemplated hereby and the application of the proceeds from the sale of the Shares as described under “Use of Proceeds” in the Registration Statement, the Pricing Disclosure Package and the Prospectus, except for the registration of the Shares under the Securities Act and such consents, approvals, authorizations, orders, filings, registrations or qualifications as may be required under the Exchange Act, the rules and regulations of the Financial Industry Regulatory Authority, Inc. (“**FINRA**”) and applicable state or foreign securities laws in connection with the purchase and sale of the Shares by the Underwriters and such consents, approvals, authorizations, orders, filings, registrations or qualifications, which, if not obtained, would not, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect.

(s) Except as disclosed in the Pricing Disclosure Package and the Prospectus, there are no contracts, agreements or understandings between the Company and any person granting such person the right to require the Company to file a registration statement under the Securities Act with respect to any securities of the Company owned or to be owned by such person or to require the Company to include such securities in the securities registered pursuant to the Registration Statement or in any securities being registered pursuant to any other registration statement filed by the Company under the Securities Act; no person has the right to act as an underwriter or as a financial advisor to the Company in connection with the offer and sale of the Shares other than the Underwriters.

(t) The Company has not sold or issued any securities that would be integrated with the offering of the Shares contemplated by this Agreement pursuant to the Securities Act, the Rules and Regulations or the interpretations thereof by the Commission.

(u) Neither the Company nor any of its subsidiaries has sustained, since the date of the latest audited financial statements included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, and since such date, there has not been any change in the capital stock or long-term debt of the Company or any of its subsidiaries or any adverse change, or any development or event involving a prospective change, in or affecting the condition (financial or otherwise), results of operations, stockholders’ equity, properties, management, business or prospects of the Company and its subsidiaries taken as a whole, in each case except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. Since the date as of which information is given in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not (i) incurred any liability or obligation, direct or contingent, other than liabilities and obligations that were incurred in the ordinary course of business, (ii) entered into any material transaction not in the ordinary course of business, (iii) declared or paid any dividend on its capital stock or (iv) purchased any of its capital stock.

(v) The historical financial statements (including the related notes and supporting schedules) included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus comply as to form in all material respects with the requirements of Regulation S-X under the Securities Act and present fairly the financial condition, results of operations and cash flows of the entities purported to be shown thereby at the dates and for the periods indicated and have been prepared in conformity with accounting principles generally accepted in the United States applied on a consistent basis throughout the periods involved and the schedules included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus present fairly the information required to be stated therein. The selected financial data and the summary financial information included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus present fairly the information shown therein and have been compiled on a basis consistent with that of the audited financial statements included or incorporated by reference therein. Except as included therein, no historical or pro forma financial statements or supporting schedules are required to be included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package or the Prospectus under the Securities Act, the Exchange Act and the Rules and Regulations.

(w) Liggett & Webb, P.A., who have certified certain financial statements of the Company and its consolidated subsidiaries, whose reports are incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus and who have delivered the initial letter referred to in Section 7(i) hereof, are independent public accountants with respect to the Company and its subsidiaries within the applicable rules and regulations adopted by the Commission and the Public Company Accounting Oversight Board (United States) and as required by the Securities Act.

(x) The statements in the Registration Statement, the Pricing Disclosure Package and the Prospectus under the headings “Certain Relationships and Related Transactions, and Director Independence,” “Description of Capital Stock,” “Risk Factors—Risks Related to Our Intellectual Property,” and “Business—Intellectual Property,” insofar as such statements summarize legal matters, agreements, documents or proceedings discussed therein, are accurate and fair summaries of such legal matters, agreements, documents or proceedings and present the information required to be shown.

(y) The Company and each of its subsidiaries have good and marketable title in fee simple to all real property and good and marketable title to all personal property owned by them, in each case free and clear of all liens, encumbrances and defects, except such as are described in the Registration Statement, the Pricing Disclosure Package and the Prospectus or such as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and its subsidiaries; and all assets held under lease by the Company and its subsidiaries are held by them under valid, subsisting and enforceable leases with no terms or provisions that would materially interfere with the use made or to be made by such assets.

(z) The Company and each of its subsidiaries carry, or are covered by, insurance from insurers of recognized financial responsibility in such amounts and covering such risks as is adequate for the conduct of their respective businesses and the value of their respective properties and as is customary for companies engaged in similar businesses in similar industries. All policies of insurance of the Company and its subsidiaries are in full force and effect; the Company and its subsidiaries are in compliance with the terms of such policies in all material respects; and neither the Company nor any of its subsidiaries has received notice from any insurer or agent of such insurer that capital improvements or other expenditures are required or necessary to be made in order to continue such insurance; there are no claims by the Company or any of its subsidiaries under any such policy or instrument as to which any insurance company is denying liability or defending under a reservation of rights clause; and neither the Company nor any such subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not have a Material Adverse Effect.

(aa) Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not 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 S of the Securities Act.

(bb) Any statistical and market-related data in the Registration Statement, the Pricing Disclosure Package and the Prospectus and the consolidated financial statements of the Company and its subsidiaries included in the Registration Statement, the Pricing Disclosure Package or the Prospectus are based on or derived from sources that the Company believes to be reliable and accurate and, to the extent required, the Company has obtained the written consent to the use of such data from such sources.

(cc) The Company is not, and as of the applicable Delivery Date and, after giving effect to the offer and sale of the Shares and the application of the net proceeds therefrom as described under "Use of Proceeds" in the Registration Statement, the Pricing Disclosure Package and the Prospectus, will not be required to register as, (i) an "investment company" or an entity "controlled" by an "investment company" within the meaning of such term under the Investment Company Act of 1940, as amended (the "**Investment Company Act**"), and the Rules and Regulations or (ii) a "business development company" (as defined in Section 2(a)(48) of the Investment Company Act).

(dd) There are no legal, governmental or regulatory investigations, actions, demands, claims, suits, arbitrations, inquiries or proceedings ("**Actions**") pending to which the Company or any of its subsidiaries is or may be a party or to which any property or assets of the Company or any of its subsidiaries is or may be the subject that, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect; no such Actions are threatened or, to the Company's knowledge, contemplated by any governmental or regulatory authority or threatened by others; and (i) there are no current or pending Actions that are required under the Securities Act to be described in the Registration Statement, the Pricing Disclosure Package or the Prospectus that are not so

described in the Registration Statement, the Pricing Disclosure Package and the Prospectus and (ii) there are no statutes, regulations or contracts or other documents that are required under the Securities Act to be filed as exhibits to the Registration Statement or described under the Registration Statement, the Pricing Disclosure Package or the Prospectus that are not so filed as exhibits to the Registration Statement or described in the Registration Statement, the Pricing Disclosure Package and the Prospectus. Neither the Company nor any of its subsidiaries has knowledge that any other party to any such contract, agreement or arrangement has any intention not to render full performance as contemplated by the terms thereof.

(ee) No relationship, direct or indirect, or related-party transaction exists between or among the Company or any of its subsidiaries, on the one hand, and the directors, officers, stockholders, customers, suppliers or other affiliates of the Company, on the other hand, that is required by the Securities Act to be described in the Registration Statement, the Pricing Disclosure Package and the Prospectus that is not so described in or incorporated by reference into such documents.

(ff) 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. The Company has not, directly or indirectly, including through its subsidiaries, 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.

(gg) No labor disturbance by the employees of the Company or its subsidiaries exists or, to the knowledge of the Company, is imminent that could reasonably be expected to have a Material Adverse Effect.

(hh) (i) Each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended (“ERISA”), for which the Company or any member of its “Controlled Group” (defined as any entity, whether or not incorporated, that is under common control with the Company within the meaning of Section 4001(a)(14) of ERISA or any entity that would be regarded as a single employer with the Company under Section 414(b),(c),(m) or (o) of the Internal Revenue Code of 1986, as amended (the “Code”)) would have any liability (each, a “Plan”) has been maintained in compliance in all material respects with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to ERISA and the Code; (ii) no prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred with respect to any Plan, excluding transactions effected pursuant to a statutory or administrative exemption; (iii) for each Plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, no Plan has failed (whether or not waived), or is reasonably expected to fail, to satisfy the minimum funding standards (within the meaning of Section 302 of ERISA or Section 412 of the Code) applicable to such Plan; (iv) no Plan is, or is reasonably expected to be, in “at risk status” (within the meaning of Section 303(i) of ERISA) and no Plan that is a “multiemployer plan” within the meaning of Section 4001(a)(3) of ERISA is in

“endangered status” or “critical status” (within the meaning of Sections 304 and 305 of ERISA) (v) the fair market value of the assets of each Plan exceeds the present value of all benefits accrued under such Plan (determined based on those assumptions used to fund such Plan); (vi) no “reportable event” (within the meaning of Section 4043(c) of ERISA and the regulations promulgated thereunder) has occurred or is reasonably expected to occur; (vii) each Plan that is intended to be qualified under Section 401(a) of the Code is so qualified, and nothing has occurred, whether by action or by failure to act, which would cause the loss of such qualification; (viii) neither the Company nor any member of the Controlled Group has incurred, nor reasonably expects to incur, any liability under Title IV of ERISA (other than contributions to the Plan or premiums to the Pension Benefit Guarantee Corporation, in the ordinary course and without default) in respect of a Plan (including a “multiemployer plan” within the meaning of Section 4001(a)(3) of ERISA); and (ix) none of the following events has occurred or is reasonably likely to occur: (A) a material increase in the aggregate amount of contributions required to be made to all Plans by the Company or its Controlled Group affiliates in the current fiscal year of the Company and its Controlled Group affiliates compared to the amount of such contributions made in the Company’s and its Controlled Group affiliates’ most recently completed fiscal year; or (B) a material increase in the Company and its subsidiaries’ “accumulated post-retirement benefit obligations” (within the meaning of Accounting Standards Codification Topic 715-60) compared to the amount of such obligations in the Company and its subsidiaries’ most recently completed fiscal year, except in each case with respect to the events or conditions set forth in (i) through (ix) hereof, as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(ii) The Company and each of its subsidiaries have filed all federal, state, local and foreign income and franchise tax returns required to be filed through the date hereof, subject to permitted extensions, and have paid all taxes due thereon, and no tax deficiency has been determined adversely to the Company or any of its subsidiaries, nor does the Company have any knowledge of any tax deficiencies that could, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(jj) There are no transfer taxes or other similar fees or charges under Federal law or the laws of any state, or any political subdivision thereof, required to be paid in connection with the execution and delivery of this Agreement or the issuance by the Company or sale by the Company of the Shares.

(kk) Neither the Company nor any of its subsidiaries (i) is in violation of its charter or by-laws (or similar organizational documents), (ii) is in default, and no event has occurred that, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement, license or other agreement or instrument to which it is a party or by which it is bound or to which any of its properties or assets is subject or (iii) is in violation of any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over it or its property or assets or has failed to obtain any license, permit, certificate, franchise or other governmental authorization or permit necessary to the ownership of its property or to the conduct of its business, except in the case of clauses (ii) and (iii), to the extent any such conflict, breach,

violation, failure or default would not, individually or in the aggregate, have a Material Adverse Effect.

(ll) Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company and each of its subsidiaries (i) make and keep accurate books and records and (ii) maintain and has maintained effective internal control over financial reporting as defined in Rule 13a-15 under the Exchange Act and a system of internal accounting controls sufficient to provide reasonable assurance that (A) transactions are executed in accordance with management's general or specific authorization, (B) transactions are recorded as necessary to permit preparation of the Company's financial statements in conformity with accounting principles generally accepted in the United States and to maintain accountability for its assets, (C) access to the Company's assets is permitted only in accordance with management's general or specific authorization, (D) the recorded accountability for the Company's assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences and (E) interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Pricing Disclosure Package fairly presents the information called for in all material respects and is prepared in accordance with the Commission's rules and guidelines applicable thereto.

(mm) Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (i) the Company and each of its subsidiaries have established and maintain disclosure controls and procedures (as such term is defined in Rule 13a-15 under the Exchange Act), (ii) such disclosure controls and procedures are designed to ensure that the information required to be disclosed by the Company and its subsidiaries in the reports they will file or submit under the Exchange Act is accumulated and communicated to management of the Company and its subsidiaries, including their respective principal executive officers and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure to be made and (iii) such disclosure controls and procedures are effective in all material respects to perform the functions for which they were established. The Company and its subsidiaries have carried out evaluations of the effectiveness of their disclosure controls and procedures as required by Rule 13a-15 of the Exchange Act.

(nn) Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, since the date of the most recent balance sheet of the Company and its consolidated subsidiaries reviewed or audited by Liggett & Webb, P.A. and the audit committee of the board of directors of the Company, (i) the Company has not been advised of (A) any significant deficiencies in the design or operation of internal controls that could adversely affect the ability of the Company and each of its subsidiaries to record, process, summarize and report financial data, or any material weaknesses in internal controls and (B) any fraud, whether or not material, that involves management or other employees who have a significant role in the internal controls of the Company and each of its subsidiaries, and (ii) since that date, there have been no significant changes in internal controls or in other factors that could significantly affect internal controls, including any corrective actions with regard to significant deficiencies and material weaknesses. Neither

the Company nor its Audit Committee is reviewing or investigating, and neither the Company's independent auditors nor its internal auditors have recommended that the Company or its Audit Committee review or investigate (1) adding to, deleting, changing the application of, or changing the Company's disclosure with respect to, any of the Company's material accounting policies, or (2) any matter which could result in a restatement of the Company's financial statements for any annual or interim period during the current or prior three fiscal years.

(oo) There is and has been no failure on the part of the Company and, to the knowledge of the Company, any of the Company's directors or officers, in their capacities as such, to comply with the applicable provisions of the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated in connection therewith.

(pp) Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there are no off-balance sheet arrangements, outstanding guarantees or other contingent obligations of the Company. All disclosures contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus of "non-GAAP financial measures" (as such term is defined by the rules and regulations promulgated by the Commission) comply with Regulation G of the Exchange Act and Item 10 of Regulation S-K under the Securities Act, to the extent applicable

(qq) The section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Policies" in the Registration Statement, the Pricing Disclosure Package and the Prospectus accurately and fully describes (A) the accounting policies that the Company believes are the most important in the portrayal of the Company's financial condition and results of operations and that require management's most difficult, subjective or complex judgments ("**Critical Accounting Policies**"); (B) the judgments and uncertainties affecting the application of Critical Accounting Policies; and (C) the likelihood that materially different amounts would be reported under different conditions or using different assumptions and an explanation thereof.

(rr) The Company and each of its subsidiaries have and are in compliance with such permits, licenses, patents, franchises, certificates of need and other approvals or authorizations of governmental or regulatory authorities ("**Permits**"), as are necessary under applicable law to own their properties and conduct their businesses in the manner described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, except for any of the foregoing that could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; each of the Company and its subsidiaries has fulfilled and performed all of its obligations with respect to the Permits, and no event has occurred that allows, or after notice or lapse of time would allow, revocation or termination thereof or results in any other impairment of the rights of the holder or any such Permits, except for any of the foregoing that could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. Neither the Company nor any of its subsidiaries has received notice of any revocation or modification of any Permits that would, individually or in the aggregate, reasonably be expected to result

in a Material Adverse Effect or has any reason to believe that any such Permits will not be renewed in the ordinary course.

(ss) The Company and each of its subsidiaries own, possess, license or have other rights to use, or can acquire on reasonable terms, all patents, patent applications, trade and service marks, trade and service mark registrations, trade names, copyrights, licenses, inventions, trade secrets, technology, know-how and other intellectual property, which are necessary for the conduct of the Company's business as now conducted or as currently proposed to be conducted in the Registration Statement, Pricing Disclosure Package and the Prospectus, as well as related rights, such as moral rights and the right to sue for all past, present and future infringements or misappropriations (collectively, the "**Intellectual Property**"). Except as set forth in the Registration Statement, Pricing Disclosure Package and Prospectus under the caption "Business — Intellectual Property," (a) to the Company's knowledge, there are no rights of third parties to any such Intellectual Property solely owned by the Company or its subsidiaries, including no liens, security interests, or other encumbrances and the Company and its subsidiaries have taken all reasonable steps necessary to secure their interests in the Intellectual Property from their employees and contractors and to protect the confidentiality of all of their confidential information and trade secrets; (b) to the Company's knowledge, there is no infringement by third parties of any such Intellectual Property; (c) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the Company's rights in or to any such Intellectual Property, and the Company is unaware of any facts which would form a reasonable basis for any such claim; (d) such Intellectual Property has not been adjudged by a court of competent jurisdiction invalid or unenforceable, in whole or in part, and there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others challenging the validity, enforceability or scope of any such Intellectual Property, including interferences, oppositions, reexaminations, post-grant reviews, *Inter partes* reviews, supplemental examinations, or government proceedings, and the Company is unaware of any facts which would form a reasonable basis for any such claim; (e) there is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others that the Company infringes, misappropriates, or otherwise violates any patent, trademark, copyright, trade secret or other proprietary rights of others, and the Company is unaware of any facts which would form a reasonable basis for any such claim; (f) no employee of the Company is in or has been in violation of any term of any employment contract, patent disclosure agreement, invention assignment agreement, non-competition agreement, non-solicitation agreement, nondisclosure agreement or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company and where such violation would, individually or in the aggregate, reasonably be expected to result in a Material Adverse Effect; (g) to the Company's knowledge, there is no patent or published patent application in the U.S. or other jurisdiction which contains claims that dominate or may dominate any Intellectual Property described in the Registration Statement, Pricing Disclosure Package and the Prospectus as being owned by or licensed to the Company or that interferes with the issued or pending claims of any such Intellectual Property; (h) there is no prior art of which the Company is aware that would render any patent held by the Company invalid; and (i) all prior art of which the Company is aware that may be material to the validity of a U.S. patent or to the patentability of a U.S. patent application has been disclosed to the U.S.

Patent and Trademark Office, and all such prior art has been disclosed to the patent offices of other jurisdictions where required, (j) the Company and each of its affiliates have upheld the duties of candor and good faith required by the United States Patent and Trademark Office during the prosecution of the United States patents and patent applications included in the Intellectual Property, (k) the products described in the Pricing Disclosure Package and the Prospectus as under development by the Company or any of its subsidiaries fall within the scope of the claims of one or more patents owned by, or exclusively licensed to, the Company or any of its subsidiaries, (l) there are no material defects in any of the patents or patent applications included in the Intellectual Property and (m) the Company and its subsidiaries have complied with the terms of each agreement pursuant to which Intellectual Property has been licensed to the Company or any subsidiary, and all such agreements are in full force and effect. All licenses to which the Company is a party relating to the Intellectual Property are in full force and effect and the Company is not in violation of any term of such license.

(tt) The Company and its subsidiaries (i) are and at all times have been in compliance with all statutes, rules and regulations applicable to the ownership, testing, development, manufacture, packaging, processing, use, distribution, marketing, advertising, labeling, promotion, sale, offer for sale, storage, import, export or disposal of any product manufactured or distributed by the Company, including, without limitation, the Food and Drug Administration of the U.S. Department of Health and Human Services or any committee thereof (the “**FDA**”), the Federal Food, Drug and Cosmetic Act (21 U.S.C. § 301 et seq.), the federal Anti-kickback Statute (42 U.S.C. § 1320a-7b(b)), the civil False Claims Act (31 U.S.C. §§ 3729 et seq.), the administrative False Claims Law (42 U.S.C. § 1320a-7b(a)), the Civil Monetary Penalties Law (42 U.S.C. § 1320a-7a), 18 U.S.C. §§ 286 and 287, the exclusion laws, the statutes, regulations and directives of Medicare (Title XVIII of the Social Security Act), Medicaid (Title XIX of the Social Security Act) and all other government funded or sponsored healthcare programs including the TRICARE program (32 C.F.R. § 199.17), the Health Insurance Portability and Accountability Act of 1996 (Public Law 104-191), as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, and the Patient Protection and Affordable Care Act of 2010 (Public Law 111-148), as amended by the Health Care and Education Reconciliation Act of 2010 (Public Law 152), the regulations promulgated pursuant to such laws, including, without limitation, the collection and reporting requirements, and the processing of any applicable rebate, chargeback or adjustment, under applicable rules and regulations relating to the VA Federal Supply Schedule (38 U.S.C. § 8126) or under any U.S. Department of Veterans Affairs agreement, and any successor government programs, and comparable state laws, regulations relating to Good Clinical Practices and Good Laboratory Practices and all other local, state, federal, national, supranational and foreign laws, and administrative guidance relating to the regulation of the Company (collectively, the “**Applicable Laws**”), except for such non-compliance as would not, individually or in the aggregate, have a Material Adverse Effect; (ii) have not received any notice from any court or arbitrator or governmental or regulatory authority or third party alleging or asserting non-compliance with any Applicable Laws or any licenses, exemptions, certificates, approvals, clearances, authorizations, permits, registrations and supplements or amendments thereto, including any FDA Form 483, notice of adverse finding, warning letter, untitled letter or other correspondence or notice from the FDA,

required by any such Applicable Laws (“**Authorizations**”); (iii) possess all material Authorizations and such Authorizations are valid and in full force and effect and are not in violation of any term of any such Authorizations; (iv) have not received notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any court or arbitrator or governmental or regulatory authority, including the FDA, or third party alleging that any product operation or activity is in violation of any Applicable Laws or Authorizations nor, to the Company’s knowledge, is any such claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action threatened; (v) have not received notice that any court or arbitrator or governmental or regulatory authority, including the FDA, has taken, is taking or intends to take action to materially limit, suspend, materially modify or revoke any Authorizations nor, to the Company’s knowledge, is any such limitation, suspension, modification or revocation threatened; (vi) have filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Applicable Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were timely, complete and accurate on the date filed in all material respects (or were corrected or supplemented by a subsequent submission); and (vii) are not a party to any corporate integrity agreements, monitoring agreements, consent decrees, settlement orders, or similar agreements with or imposed by any governmental or regulatory authority. In addition, none of the Company, its subsidiaries or, to the Company’s knowledge, any of their respective directors, officers, employees or agents is or, has been debarred, suspended or excluded, or has been convicted of any crime or engaged in any conduct that would result in a debarment, suspension or exclusion by the FDA or from any federal or state government health care program.

(uu) The nonclinical studies and clinical trials conducted by or on behalf of or sponsored by the Company or its subsidiaries that are described in the Registration Statement, the Pricing Disclosure Package or the Prospectus or the results of which are referred to in the Registration Statement, the Pricing Disclosure Package or the Prospectus, as applicable, were and, if still pending, are being conducted in all material respects in accordance with standard medical and scientific research procedures and all applicable statutes, rules and regulations of the FDA and comparable drug regulatory agencies outside of the United States to which it is subject (collectively, the “**Regulatory Authorities**”), including, without limitation, 21 C.F.R. Parts 50, 54, 56, 58, and 312; the descriptions in the Registration Statement, the Pricing Disclosure Package or the Prospectus of the results of such studies and trials do not contain any misstatement of a material fact or omit to state a material fact necessary to make such statements not misleading; the Company has no knowledge of any other trials the results of which are inconsistent with or otherwise call into question the results described or referred to in the Registration Statement, the Pricing Disclosure Package and the Prospectus; neither the Company nor its subsidiaries have received any written notices, correspondence or other communication from the Regulatory Authorities or any other governmental agency which would lead to the termination or suspension of any nonclinical or clinical trials that are described in the Registration Statement, the Pricing Disclosure Package or the Prospectus or the results of which are referred to in the Registration Statement, Pricing Disclosure Package or the Prospectus,

except where such termination or suspension would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(vv) The Company and each of its subsidiaries (i) are, and at all times prior hereto were, in compliance with all laws, regulations, ordinances, rules, orders, judgments, decrees, permits or other legal requirements of any governmental authority, including without limitation any international, national, state, provincial, regional, or local authority, relating to the protection of human health or safety, the environment, or natural resources, or to hazardous or toxic substances or wastes, pollutants or contaminants ("**Environmental Laws**") applicable to such entity, which compliance includes, without limitation, obtaining, maintaining and complying with all permits and authorizations and approvals required by Environmental Laws to conduct their respective businesses, and (ii) have not received notice of any actual or alleged violation of Environmental Laws, or of any potential liability for or other obligation concerning the presence, disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants, except in the case of clause (i) or (ii) where such non-compliance, violation, liability or other obligation would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. Except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (A) there are no proceedings that are pending, or known to be contemplated, against the Company or any of its subsidiaries under Environmental Laws in which a governmental authority is also a party, other than such proceedings regarding which it is reasonably believed no monetary sanctions of \$100,000 or more will be imposed, (B) the Company and its subsidiaries are not aware of any issues regarding compliance with Environmental Laws, or liabilities or other obligations under Environmental Laws or concerning hazardous or toxic substances or wastes, pollutants or contaminants, that would reasonably be expected to have a Material Adverse Effect and (C) none of the Company and its subsidiaries anticipates material capital expenditures relating to Environmental Laws.

(ww) Neither the Company nor any subsidiary is in violation of or has received notice of any violation with respect to any federal or state law relating to discrimination in the hiring, promotion or pay of employees, nor any applicable federal or state wage and hour laws, nor any state law precluding the denial of credit due to the neighborhood in which a property is situated, the violation of any of which would reasonably be expected to have a Material Adverse Effect.

(xx) No subsidiary of the Company is currently prohibited, directly or indirectly, from paying any dividends to the Company, from making any other distribution on such subsidiary's capital stock, from repaying to the Company any loans or advances to such subsidiary from the Company or from transferring any of such subsidiary's property or assets to the Company or any other subsidiary of the Company, except as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(yy) Neither the Company nor any of its subsidiaries nor, to the Company's best knowledge, any director, officer, agent, employee or other person associated with or acting on behalf of the Company or any of its subsidiaries has (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to

political activity; (ii) made or taken an act in furtherance of an offer, promise or authorization of any direct or indirect unlawful payment or benefit to any foreign or domestic government official or employee, including of any government-owned or controlled entity or of a public international organization or any person acting in an official capacity for or on behalf of any of the foregoing, or any political party or party official or candidate for political office; (iii) violated or is in violation of any provision of the Foreign Corrupt Practices Act of 1977, as amended, the U.K. Bribery Act of 2010, as amended, any applicable law or regulation implementing the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions or any other applicable anti-bribery or anti-corruption law; or (iv) made, offered, agreed, requested or taken an act in furtherance of any bribe, rebate, payoff, influence payment, kickback or other unlawful payment. The Company and its subsidiaries have instituted, maintain and enforce policies and procedures designed to promote and ensure compliance with the foregoing.

(zz) The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the USA Patriot Act, the money laundering statutes of all jurisdictions, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any 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 knowledge of the Company, threatened.

(aaa) None of the Company, its subsidiaries or, to the Company’s best knowledge, any of their respective directors or officers or, to the knowledge of the Company, any agent (while acting in such capacity), employee or other person acting on behalf of the Company or its subsidiaries is (i) currently subject to or the target of any sanctions administered or enforced by the Office of Foreign Assets Control of the U.S. Treasury Department (“**OFAC**”), the U.S. Department of State, the United Nations Security Council (“**UNSC**”), the European Union (“**EU**”), Her Majesty’s Treasury (“**HMT**”), or other relevant sanctions authority (collectively, “**Sanctions**”); (ii) located, organized or resident in a country that is the subject of Sanctions (including, without limitation, Cuba, Iran, North Korea and Syria); or (iii) on the Specially Designated Nationals List (the “**SDNL**”) of the U.S. Treasury Department; and the Company will not directly or indirectly use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to its subsidiaries, joint venture partner or other person or entity, (i) to fund or facilitate any activities of or business with any person that, at the time of such funding or facilitation, is the subject or target of Sanctions or that appears on the SDNL, (ii) to fund or facilitate any activities of or business in any country that is the subject or target of Sanctions or that appears on the SDNL or (iii) in any other manner that will result in a violation by any person (including any person participating in the transaction, whether as underwriter, advisor, investor or otherwise) of Sanctions. The Company and its subsidiaries have not knowingly engaged in for the past five years, are not now knowingly engaged in, and will not knowingly engage in, any dealings or transactions with any

individual or entity, or in any country or territory, that at the time of the dealing or transaction is or was the subject or target of Sanctions or currently appears on the SDNL.

(bbb) The Company and its subsidiaries' information technology assets and equipment, computers, systems, networks, hardware, software, websites, applications, and databases (collectively, "**IT Systems**") are adequate for, and operate and perform in all material respects as required in connection with the operation of the business of the Company and its subsidiaries as currently conducted, and are, to the Company's knowledge, free and clear of all material bugs, errors, defects, Trojan horses, time bombs, malware and other corruptants. The Company and its subsidiaries have implemented and maintained commercially reasonable controls, policies, procedures, and safeguards to maintain and protect their material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and data (including all personal, personally identifiable, sensitive, confidential or regulated data ("**Personal Data**")) used in connection with their businesses, and there have been no breaches, violations, outages or unauthorized uses of or accesses to same, except for those that have been remedied without material cost or liability or the duty to notify any other person, nor any incidents under internal review or investigations relating to the same. The Company and its subsidiaries are presently in material compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Personal Data and to the protection of such IT Systems and Personal Data from unauthorized use, access, misappropriation or modification. The Company and its subsidiaries have taken all necessary actions to prepare to comply with the European Union General Data Protection Regulation (and all other applicable laws and regulations with respect to Personal Data that have been announced as of the date hereof as becoming effective within 12 months after the date hereof, and for which any non-compliance with same would be reasonably likely to create a material liability) as soon they take effect.

(ccc) The Company has not distributed and, prior to the later to occur of any Delivery Date and completion of the distribution of the Shares, will not distribute any offering material in connection with the offering and sale of the Shares other than any Preliminary Prospectus, the Prospectus, any Issuer Free Writing Prospectus to which the Representative has consented in accordance with Section 1(i) or 5(a)(v).

(ddd) The Company has obtained for the benefit of the underwriters the Lock-Up Agreements referred to in Section 5(a)(ix) hereof from each of its "directors" and "officers" (within the meaning of Rule 16a-1(f) under the Exchange Act) and each shareholder of the Company set forth on Schedule IV hereto.

(eee) None of the Company, its officers or its directors has taken and will not take, directly or indirectly, any action designed to or that has constituted or that could reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares.

(fff) There are no contracts, agreements or understandings between the Company and any person (other than the Underwriters) that would give rise to a valid claim against the Company or any Underwriter for a brokerage commission, finder's fee or other like payment in connection with this offering.

(ggg) The Common Stock is listed on The NASDAQ Capital Market.

(hhh) Reserved.

(iii) Neither the issuance, sale and delivery of the Shares nor the application of the proceeds thereof by the Company as described in each of the Registration Statement, the Pricing Disclosure Package and the Prospectus will violate Regulation T, U or X of the Board of Governors of the Federal Reserve System or any other regulation of such Board of Governors.

(jjj) No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) included or incorporated by reference in any of the Registration Statement, the Pricing Disclosure Package or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

Any certificate signed by any officer of the Company and delivered to the Representative or counsel for the Underwriters in connection with the offering of the Shares shall be deemed a representation and warranty by the Company, as to matters covered thereby, to each Underwriter.

2. *Purchase of the Shares by the Underwriters.* On the basis of the representations and warranties contained in, and subject to the terms and conditions of, this Agreement, the Company agrees to sell 2,500,000 Firm Shares to the several Underwriters, and each of the Underwriters, severally and not jointly, agrees to purchase the number of Firm Shares set forth opposite that Underwriter's name in Schedule I hereto. The respective purchase obligations of the Underwriters with respect to the Firm Shares shall be rounded among the Underwriters to avoid fractional shares, as the Representative may determine.

In addition, the Company grants to the Underwriters an option to purchase up to 375,000 additional Option Shares. Each Underwriter agrees, severally and not jointly, to purchase the number of Option Shares (subject to such adjustments to eliminate fractional shares as the Representatives may determine) that bears the same proportion to the total number of Option Shares to be sold on such Delivery Date as the number of Firm Shares set forth in Schedule I hereto opposite the name of such Underwriter bears to the total number of Firm Shares.

The price of the Firm Shares and any Option Shares purchased by the Underwriters shall be \$3.68 per share.

The Company shall not be obligated to deliver any of the Firm Shares or Option Shares to be delivered on the applicable Delivery Date, except upon payment for all such Shares to be purchased on such Delivery Date as provided herein.

3. *Offering of Stock by the Underwriters.* Upon authorization by the Representative of the release of the Firm Shares, the several Underwriters propose to offer the Firm Shares for sale upon the terms and conditions to be set forth in the Prospectus.

4. *Delivery of and Payment for the Shares.* Delivery of and payment for the Firm Shares shall be made at 10:00 A.M., New York City time, on the second full business day following the date of this Agreement or at such other date or place as shall be determined by agreement between the Representative and the Company. This date and time are sometimes referred to as the “**Initial Delivery Date.**” Delivery of the Firm Shares shall be made to the Representative for the account of each Underwriter against payment by the several Underwriters through the Representative and of the respective aggregate purchase prices of the Firm Shares being sold by the Company to or upon the order of the Company of the purchase price by wire transfer in immediately available funds to the accounts specified by the Company. Time shall be of the essence, and delivery at the time and place specified pursuant to this Agreement is a further condition of the obligation of each Underwriter hereunder. The Company shall deliver the Firm Shares through the facilities of DTC unless the Representative shall otherwise instruct.

The option granted in Section 2 will expire 30 days after the date of this Agreement and may be exercised in whole or from time to time in part by written notice being given to the Company by the Representative; *provided* that if such date falls on a day that is not a business day, the option granted in Section 2 will expire on the next succeeding business day. Such notice shall set forth the aggregate number of Option Shares as to which the option is being exercised, the names in which the Option Shares are to be registered, the denominations in which the Option Shares are to be issued and the date and time, as determined by the Representative, when the Option Shares are to be delivered; *provided, however,* that this date and time shall not be earlier than the Initial Delivery Date nor earlier than the first business day after the date on which the option shall have been exercised nor later than the fifth business day after the date on which the option shall have been exercised. Each date and time the Option Shares are delivered is sometimes referred to as an “**Option Share Delivery Date,**” and the Initial Delivery Date and any Option Share Delivery Date are sometimes each referred to as a “**Delivery Date.**”

Delivery of the Option Shares by the Company and payment for the Option Shares by the several Underwriters through the Representative shall be made at 10:00 A.M., New York City time, on the date specified in the corresponding notice described in the preceding paragraph or at such other date or place as shall be determined by agreement between the Representative and the Company. On the Option Share Delivery Date, the Company shall deliver or cause to be delivered the Option Shares to the Representative for the account of each Underwriter against payment by the several Underwriters through the Representative and of the respective aggregate purchase prices of the Option Shares being sold by the Company to or upon the order of the Company of the purchase price by wire transfer in immediately available funds to the accounts specified by the Company. Time shall be of the essence, and delivery at the time and place specified pursuant to this Agreement is a further condition of the obligation of each Underwriter hereunder. The Company shall deliver the Option Shares through the facilities of DTC unless the Representative shall otherwise instruct.

5. *Further Agreements of the Company and the Underwriters.* (a) The Company agrees:

(i) To prepare the Prospectus in a form approved by the Representative and to file such Prospectus pursuant to Rule 424(b) and Rule 430A, 430B and 430C under the Securities Act, as applicable, not later than the Commission's close of business on the second business day following the execution and delivery of this Agreement and to provide satisfactory evidence to the Representative of such timely filing; to file promptly all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of the Prospectus and for so long as the delivery of a prospectus is required in connection with the offering or sale of the Shares; to make no further amendment or any supplement to the Registration Statement or the Prospectus prior to the last Delivery Date except, with the prior written consent of the Representative or as provided herein, which consent shall not be unreasonably withheld, conditioned or delayed; to advise the Representative, promptly after it receives notice thereof, of the time when any amendment or supplement to the Registration Statement or the Prospectus has been filed and to furnish the Representative with copies thereof to the extent reasonably requested; to advise the Representative, promptly after it receives notice thereof, of the issuance by the Commission of any stop order or of any order preventing or suspending the use of the Prospectus or any Issuer Free Writing Prospectus, of the suspension of the qualification of the Shares for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding or examination for any such purpose or of any request by the Commission for the amending or supplementing of the Registration Statement, the Prospectus or any Issuer Free Writing Prospectus or for additional information; and, in the event of the issuance of any stop order or of any order preventing or suspending the use of the Prospectus or any Issuer Free Writing Prospectus or suspending any such qualification, to use promptly its best efforts to obtain its withdrawal;

(ii) To deliver promptly to the Representative such number of the following documents as the Representative shall reasonably request: (A) conformed copies of the Registration Statement as originally filed with the Commission and each amendment thereto (in each case including exhibits and consents filed therewith and documents incorporated by reference therein), (B) each Preliminary Prospectus, the Prospectus and any amended or supplemented Prospectus, (C) each Issuer Free Writing Prospectus and (D) any document incorporated by reference in any Preliminary Prospectus or the Prospectus (unless available on EDGAR); and, if the delivery of a prospectus is required at any time after the date hereof in connection with the offering or sale of the Shares or any other securities relating thereto and if at such time any events shall have occurred as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made when such Prospectus is delivered, not misleading, or, if for any other reason it shall be necessary to amend or supplement the Prospectus in order to comply with the Securities Act, to notify the Representative and, upon its request, to prepare and file such document and to prepare and furnish without charge to each Underwriter and to any dealer in securities as many copies as the Representative may from time to time reasonably request of an amended or

supplemented Prospectus that will correct such statement or omission or effect such compliance;

(iii) To file promptly with the Commission any amendment or supplement to the Registration Statement or the Prospectus that may, in the reasonable judgment of the Company or the Representative, be required by the Securities Act or requested by the Commission in connection with the offering of the Shares;

(iv) During the period when a prospectus relating to the Shares is required by the Securities Act to be delivered, prior to filing with the Commission any amendment or supplement to the Registration Statement, the Prospectus, any document incorporated by reference in the Prospectus or any amendment to any document incorporated by reference in the Prospectus, to furnish a copy thereof to the Representative and counsel for the Underwriters and obtain the consent of the Representative to the filing. Neither the Representative's consent to, nor the Underwriters' delivery of, any such amendment or supplement shall constitute a waiver of any of the conditions set forth in Section 7 hereof;

(v) Not to make any offer relating to the Shares that would constitute an Issuer Free Writing Prospectus without the prior written consent of the Representative;

(vi) To comply with all applicable requirements of Rule 433 with respect to any Issuer Free Writing Prospectus with respect to the Shares; and if at any time after the date hereof any events shall have occurred as a result of which any Issuer Free Writing Prospectus, as then amended or supplemented, would conflict with the information in the Registration Statement, the Pricing Disclosure Package or the Prospectus or would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading, or, if for any other reason it shall be necessary to amend or supplement any Issuer Free Writing Prospectus, to notify the Representative and, upon its request, to file such document and to prepare and furnish without charge to each Underwriter as many copies as the Representative may from time to time reasonably request of an amended or supplemented Issuer Free Writing Prospectus that will correct such conflict, statement or omission or effect such compliance;

(vii) As soon as practicable, but not later than twelve (12) months after the date of this Agreement, to make generally available to its security holders an earning statement (which need not be audited) covering a period of at least 12 months beginning with the first fiscal quarter of the Company occurring after the date of this Agreement, which will satisfy the provisions of Section 11(a) of the Securities Act and Rule 158 of the Securities Act; *provided* that this obligation shall be deemed satisfied if the Company shall have filed the requisite reports with the Commission containing such information;

(viii) Promptly from time to time to take such action as the Representative may reasonably request to qualify the Shares for offering and sale under the securities laws of such jurisdictions as the Representative may reasonably request and to comply with such laws so as to permit the continuance of sales and dealings therein in such jurisdictions for as long as may be necessary to complete the distribution of the Shares; *provided* that in

connection therewith the Company shall not be required to (i) qualify as a foreign corporation in any jurisdiction in which it would not otherwise be required to so qualify, (ii) file a general consent to service of process in any such jurisdiction or (iii) subject itself to taxation in any jurisdiction in which it would not otherwise be subject;

(ix) For a period commencing on the date hereof and ending on the 90th day after the date of the Prospectus (the "**Lock-Up Period**"), except for the Shares to be sold hereunder, not to, directly or indirectly, (1) offer for sale, sell, issue, contract to sell, pledge or otherwise dispose of (or enter into any transaction or device that is designed to, or could be expected to, result in the disposition by any person at any time in the future of) any shares of Common Stock or securities of the Company convertible into or exercisable or exchangeable for Common Stock, or sell or grant options, rights or warrants with respect to any shares of Common Stock or securities convertible into or exchangeable for Common Stock (other than the grant of options or other equity awards in the ordinary course of business pursuant to incentive plans described in the Registration Statement), (2) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of such shares of Common Stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common Stock or other securities, in cash or otherwise, (3) offer to purchase, purchase or contract to purchase or grant any option, right or warrant to purchase Common Stock or securities convertible, exercisable or exchangeable into Common Stock or any other securities of the Company, (4) file or cause to be filed a registration statement, including any amendments, with respect to the registration of any shares of Common Stock or securities convertible, exercisable or exchangeable into Common Stock or any other securities of the Company (other than any registration statement on Form S-8 or any successor form thereto relating to securities granted or to be granted pursuant to any plan in effect on the date of this Agreement and described in the Prospectus, *provided* that no such registered securities shall be issued by the Company during the Lock-Up Period), (5) establish or increase a put equivalent position or liquidate or decrease a call equivalent position in securities of the Company or (6) publicly disclose the intention to do any of the foregoing, in each case without the prior written consent of the Representative on behalf of the Underwriters, and to cause each officer and director of the Company and each stockholder of the Company set forth on Schedule IV hereto to furnish to the Representative, prior to the Initial Delivery Date, a letter or letters, in the form of Exhibit A hereto (the "**Lock-Up Agreements**");

(x) To apply the net proceeds from the sale of the Shares being sold by the Company as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus under the heading "Use of Proceeds";

(xi) To not take, directly or indirectly, any action designed to or that would constitute or that might reasonably be expected to cause or result in, stabilization or manipulation of the price of any securities of the Company to facilitate the sale or resale of the Shares;

(xii) Reserved.

(xiii) If at any time following the distribution of any Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such Written Testing-the-Waters Communication 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 existing at that subsequent time, not misleading, the Company will promptly notify the Representative and will promptly amend or supplement, at its own expense, such Written Testing-the-Waters Communication to eliminate or correct such untrue statement or omission. The Company will promptly notify the Representative of (i) any distribution by the Company of Written Testing-the-Waters Communications and (ii) any request by the Commission for information concerning the Written Testing-the-Waters Communications.

(xiv) Reserved.

(xv) To do and perform all things required or necessary to be done and performed under this Agreement by it prior to each Delivery Date, and to satisfy all conditions precedent to the Underwriters' obligations hereunder to purchase the Shares;

(b) Each Underwriter severally agrees that such Underwriter shall not include any "issuer information" (as defined in Rule 433) in any "free writing prospectus" (as defined in Rule 405) used or referred to by such Underwriter without the prior consent of the Company (any such issuer information with respect to whose use the Company has given its consent, "**Permitted Issuer Information**"); *provided* that (i) no such consent shall be required with respect to any such issuer information contained in any document filed by the Company with the Commission prior to the use of such free writing prospectus and (ii) "issuer information," as used in this Section 5(b), shall not be deemed to include information prepared by or on behalf of such Underwriter on the basis of or derived from issuer information.

6. *Expenses.* The Company agrees, whether or not the transactions contemplated by this Agreement are consummated or this Agreement is terminated, to pay all costs, expenses, fees and taxes incident to and in connection with (a) the authorization, issuance, sale and delivery of the Shares and any stamp duties or other taxes payable in that connection, and the preparation and printing of certificates for the Shares; (b) the preparation, printing and filing under the Securities Act of the Registration Statement (including any exhibits thereto), any Preliminary Prospectus, the Prospectus, any Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication and any amendment or supplement thereto; (c) the distribution of the Registration Statement (including any exhibits thereto), any Preliminary Prospectus, the Prospectus, any Issuer Free Writing Prospectus, any Written Testing-the-Waters Communication and any amendment or supplement thereto, all as provided in this Agreement; (d) any required review by FINRA of the terms of sale of the Shares (including filing fees); (e) the listing of the Shares on The NASDAQ Capital Market or any other exchange; (f) the qualification of the Shares under the securities laws of the several jurisdictions as provided in Section 5(a)(viii) and the preparation, printing and distribution of a Blue Sky Memorandum (including related fees and expenses of counsel to the Underwriters); (g) the investor presentations on any "road show" or any Written Testing-the-Waters Communication undertaken in connection with the marketing of the Shares, including, without limitation, expenses associated with any electronic roadshow and the reasonable travel and lodging expenses of the Representative and officers of the Company; the cost of any aircraft

chartered in connection with the road show; (h) all other costs and expenses incident to the performance of the obligations of the Company under this Agreement, and any transfer taxes payable in connection with its sale of the Shares to the Underwriters; and (i) all fees and expenses incurred by the Representative in connection with the offering, including the reasonable fees and expenses of Underwriters' counsel, *provided* that such fees and expenses of Underwriters' counsel shall not exceed \$100,000 without the Company's prior written consent.

7. *Conditions of Underwriters' Obligations.* The respective obligations of the Underwriters hereunder are subject to the accuracy, when made and on each Delivery Date, of the representations and warranties of the Company contained herein, to the performance by the Company of its obligations hereunder, and to each of the following additional terms and conditions:

(a) The Prospectus shall have been timely filed with the Commission in accordance with Section 5(a)(i); the Company shall have complied with all filing requirements applicable to any Issuer Free Writing Prospectus used or referred to after the date hereof; the Registration Statement, including any Rule 462(b) Registration Statement, has become effective and, at such Delivery Date, no stop order suspending the effectiveness of the Registration Statement or preventing or suspending the use of the Prospectus or any Issuer Free Writing Prospectus shall have been issued and no proceeding or examination for such purpose shall have been initiated or threatened, or to the knowledge of the Company or the Representative, contemplated by the Commission; and any request of the Commission for inclusion of additional information in the Registration Statement or the Prospectus or otherwise shall have been complied with.

(b) The representations and warranties of the Company contained herein shall be true and correct on the date hereof and on and as of each Delivery Date; and the statements of the Company and its officers made in any certificates delivered pursuant to this Agreement shall be true and correct on and as of each Delivery Date.

(c) No Underwriter shall have discovered and disclosed to the Company on or prior to such Delivery Date that the Registration Statement, the Prospectus or the Pricing Disclosure Package, or any amendment or supplement thereto, contains an untrue statement of a fact which, in the reasonable opinion of counsel for the Underwriters, is material or omits to state a fact which, in the reasonable opinion of such counsel, is material and is required to be stated therein or is necessary to make the statements therein not misleading.

(d) All corporate proceedings and other legal matters incident to the authorization, form and validity of this Agreement, the Warrants, the Shares, the Warrant Shares, the Registration Statement, the Prospectus and any Issuer Free Writing Prospectus, and all other legal matters relating to this Agreement and the transactions contemplated hereby shall be reasonably satisfactory in all material respects to counsel for the Underwriters, and the Company shall have furnished to such counsel all documents and information that they may reasonably request to enable them to pass upon such matters.

(e) Haynes and Boone, LLP shall have furnished to the Representative its written opinion and 10b-5 statement, as counsel to the Company, addressed to the

Underwriters and dated such Delivery Date, in form and substance reasonably satisfactory to the Representative.

(f) Sterne, Kessler, Goldstein & Fox P.L.L.C., special counsel for the Company with respect to patents and proprietary rights, shall have furnished to the Representative its written opinion, addressed to the Underwriters and dated such Delivery Date, in form and substance reasonably satisfactory to the Representative.

(g) The Company shall have delivered the Warrants to the Representative or as the Representative may otherwise direct.

(h) Reserved.

(i) (i) On the date of this Agreement and on each Delivery Date, Liggett & Webb, P.A. shall have furnished to the Representative, at the request of the Company, letters, dated the respective dates of delivery thereof and addressed to the Underwriters, in form and substance reasonably satisfactory to the Representative, containing statements and information of the type customarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained or incorporated by reference in each of the Registration Statement, the Pricing Disclosure Package and the Prospectus; *provided* that the letter delivered on such Delivery Date shall use a "cut-off" date no more than two business days prior to such Delivery Date.

(j) On the date of this Agreement and on such Delivery Date, the Company shall have furnished to the Representative a certificate, dated the respective dates of delivery thereof and addressed to the Underwriters, of its chief financial officer with respect to certain financial data contained in the Pricing Disclosure Package and the Prospectus, providing "management comfort" with respect to such information, in form and substance reasonably satisfactory to the Representative.

(k) The Company shall have furnished to the Representative a certificate, dated such Delivery Date, of its principal executive officer and its principal financial officer stating that:

(i) the representations, warranties and agreements of the Company in Section 1 are true and correct on and as of such Delivery Date, and the Company has complied with all its agreements contained herein and satisfied all the conditions on its part to be performed or satisfied hereunder at or prior to such Delivery Date;

(ii) no stop order suspending the effectiveness of the Registration Statement has been issued; and no proceedings or examination for that purpose have been instituted or threatened or, to the knowledge of such officers, contemplated;

(iii) subsequent to the date of the most recent financial statements in the Pricing Disclosure Package, there has been no material adverse change, nor any development or event involving a prospective material adverse change, in the

condition (financial or otherwise), results of operations, business, properties or prospects of the Company and its subsidiaries taken as a whole except as set forth in the Pricing Disclosure Package or as described in such certificate; and

(iv) they have carefully examined the Registration Statement, the Prospectus and the Pricing Disclosure Package, and, in their opinion, (A) (1) the Registration Statement, as of the Effective Date, (2) the Prospectus, as of its date and on the applicable Delivery Date, and (3) the Pricing Disclosure Package, as of the Applicable Time, did not and do not contain any untrue statement of a material fact and did not and do not omit to state a material fact required to be stated therein or necessary to make the statements therein (except in the case of the Registration Statement and the Prospectus, in the light of the circumstances under which they were made) not misleading, and (B) since the Effective Date, no event has occurred that should have been set forth in a supplement or amendment to the Registration Statement, the Prospectus or any Issuer Free Writing Prospectus that has not been so set forth.

(l) (i) Neither the Company nor any of its subsidiaries shall have sustained, since the date of the latest audited financial statements included or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor disturbance or dispute or from any court, regulatory authority or governmental action, order or decree or (ii) since such date there shall not have been any change in the capital stock or long-term debt or net current assets of the Company or any of its subsidiaries or any change, or any development involving a prospective change, in or affecting the condition (financial or otherwise), results of operations, stockholders' equity, properties, management, business or prospects of the Company and its subsidiaries taken as a whole, the effect of which, in any such case described in clause (i) or (ii), is, in the judgment of the Representative, so material and adverse as to make it impracticable or inadvisable to proceed with the public offering or the delivery of the Shares being delivered on such Delivery Date on the terms and in the manner contemplated in the Prospectus.

(m) Subsequent to the execution and delivery of this Agreement there shall not have occurred any of the following: (i) trading in securities generally on the New York Stock Exchange, the NYSE Amex or Nasdaq Capital Market, or trading in any securities of the Company on any exchange, shall have been suspended or materially limited or the settlement of such trading generally shall have been materially disrupted or minimum prices shall have been established on any such exchange or such market by the Commission, by such exchange or by any other regulatory body or governmental authority having jurisdiction, (ii) a banking moratorium shall have been declared by federal or state authorities, (iii) any attack on, or outbreak involving the United States, the United States shall have become engaged in hostilities, there shall have been an escalation in hostilities involving the United States or there shall have been a declaration of a national emergency or war by the United States or (iv) there shall have occurred such a material adverse change in general economic, political or financial conditions, including, without limitation, as a result of terrorist activities after the date hereof (or the effect of international conditions on

the financial markets in the United States shall be such), as to make it, in the judgment of the Representative, impracticable or inadvisable to proceed with the public offering or delivery of the Shares being delivered on such Delivery Date on the terms and in the manner contemplated in the Prospectus.

(n) The Company shall have submitted a listing of additional shares notification form to NASDAQ with respect to the Shares and the Warrant Shares and shall have received no objection thereto from NASDAQ.

(o) The Representative shall have received on and as of such Delivery Date satisfactory evidence of the good standing of the Company and its subsidiaries in their respective jurisdictions of organization and their good standing in such other jurisdictions as the Representative may reasonably request, in each case in writing or any standard form of telecommunication from the appropriate governmental authorities of such jurisdictions.

(p) The Lock-Up Agreements between the Representative and the officers, directors and the stockholders of the Company shall have been delivered to the Representative on or before the date of this Agreement and shall be in full force and effect on such Delivery Date.

(q) The Company shall have furnished such other opinions, certificates, letters and documents as the Representative reasonably requests.

All opinions, letters, evidence and certificates mentioned above or elsewhere in this Agreement shall be deemed to be in compliance with the provisions hereof only if they are in form and substance reasonably satisfactory to counsel for the Underwriters.

8. *Indemnification and Contribution.*

(a) The Company shall indemnify and hold harmless each Underwriter, its directors, officers, employees, partners, agents, affiliates and each person, if any, who controls any Underwriter within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act (each an “**Indemnified Party**”), from and against any and all loss, claim, damage or liability, joint or several, or any action in respect thereof (including, but not limited to, any loss, claim, damage, liability or action relating to purchases and sales of Shares), to which such Indemnified Party may become subject, under the Securities Act, the Exchange Act, other federal or state statutory law or otherwise, insofar as such loss, claim, damage or liability (or action in respect thereof) arises out of, or is based upon, (i) any untrue statement or alleged untrue statement of a material fact contained in (A) any Preliminary Prospectus as of any time, any part of any Registration Statement at any time, the Pricing Disclosure Package, the Prospectus or in any amendment or supplement thereto, (B) any Issuer Free Writing Prospectus or in any amendment or supplement thereto or (C) any Permitted Issuer Information used or referred to in any “free writing prospectus” (as defined in Rule 405) used or referred to by any Underwriter or (D) any “road show” (as defined in Rule 433) or investor presentation not constituting an Issuer Free Writing Prospectus and any Written Testing-the-Waters Communication (“**Marketing Materials**”) or (ii) the omission or alleged omission to state in any Preliminary Prospectus, any part of

any Registration Statement, the Pricing Disclosure Package, the Prospectus, any Issuer Free Writing Prospectus or in any amendment or supplement thereto or in any Permitted Issuer Information or any Marketing Materials, any material fact required to be stated therein or necessary to make the statements therein not misleading, and shall reimburse each Indemnified Party promptly upon demand for any legal or other expenses reasonably incurred by such Indemnified Party in connection with investigating or defending or preparing to defend against any such loss, claim, damage, liability, action, litigation, investigation or proceeding whatsoever (whether or not such Indemnified Party is a party thereto), whether threatened or commenced, as such expenses are incurred; *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 any of such documents, in reliance upon and in conformity with information relating to any Underwriter furnished to the Company in writing by the Representative on behalf of any Underwriter specifically for inclusion therein, which information consists solely of the information specified in Section 8(e). The foregoing indemnity agreement is in addition to any liability which the Company may otherwise have to any Indemnified Party.

(b) Each Underwriter, severally and not jointly, shall indemnify and hold harmless the Company, its directors, officers who sign a Registration Statement 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 an “**Underwriter Indemnified Party**”), from and against any loss, claim, damage or liability, joint or several, or any action in respect thereof, to which such Underwriter Indemnified Party may become subject, under the Securities Act, the Exchange Act, other federal or state statutory law or regulation or otherwise, insofar as such loss, claim, damage, liability or action arises out of, or is based upon, (i) any untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, any Registration Statement, the Pricing Disclosure Package, the Prospectus, any Issuer Free Writing Prospectus or in any amendment or supplement thereto or in any Marketing Materials, or (ii) the omission or alleged omission to state in any Preliminary Prospectus, any Registration Statement, the Prospectus, any Issuer Free Writing Prospectus or in any amendment or supplement thereto or in any Marketing Materials, any material fact required to be stated therein or necessary to make the statements therein not misleading, but in each case only to the extent that the untrue statement or alleged untrue statement or omission or alleged omission was made in reliance upon and in conformity with information relating to any Underwriter furnished to the Company in writing by the Representative on behalf of any Underwriter specifically for inclusion therein, which information is limited to the information set forth in Section 8(e). The foregoing indemnity agreement is in addition to any liability that any Underwriter may otherwise have to an Underwriter Indemnified Party.

(c) Promptly after receipt by an indemnified party under this Section 8 of notice of any claim or the commencement of any action, the indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under this Section 8, notify the indemnifying party in writing of the claim or the commencement of that action; *provided, however*, that the failure to notify the indemnifying party shall not relieve it from any liability that it may have under this Section 8 except to the extent it has been materially

prejudiced (through the forfeiture of substantive rights or defenses) by such failure and, *provided, further*, that the failure to notify the indemnifying party shall not relieve it from any liability which it may have to an indemnified party otherwise than under this Section 8. If any such claim or action is brought against an indemnified party, and it notifies the indemnifying party thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it wishes, jointly with any other similarly notified indemnifying party, to assume the defense thereof with counsel reasonably satisfactory to the indemnified party (who shall not, except with the consent of the indemnified party, be counsel to the indemnifying party). After notice from the indemnifying party to the indemnified party of its election to assume the defense of such claim or action, the indemnifying party shall not be liable to the indemnified party under this Section 8 for any legal or other expenses subsequently incurred by the indemnified party in connection with the defense thereof other than reasonable costs of investigation; *provided, however*, that the indemnified party shall have the right to employ counsel to represent jointly the indemnified party and those other indemnified parties who may be subject to liability arising out of any claim in respect of which indemnity may be sought under this Section 8 if (i) the indemnified party and the indemnifying party shall have so mutually agreed; (ii) the indemnifying party has failed within a reasonable time to retain counsel reasonably satisfactory to the indemnified party; (iii) the indemnified party shall have reasonably concluded that there may be legal defenses available to them that are different from or in addition to those available to the indemnifying party; or (iv) the named parties in any such proceeding (including any impleaded parties) include both the indemnified parties or their respective directors, officers, employees, partners, agents, affiliates or controlling persons, on the one hand, and the indemnifying party, on the other hand, and representation of both sets of parties by the same counsel would be inappropriate due to actual or potential differing interests between them, and in any such event the reasonable fees and expenses of such separate counsel shall be paid by the indemnifying party (but the indemnifying party shall not be liable for the fees and expenses of more than one law firm (in addition to any local counsel) for the indemnified party). No indemnifying party shall (i) without the prior written consent of the indemnified party (which consent shall not be unreasonably withheld), settle or compromise or consent to the entry of any judgment with respect to any pending or threatened claim, action, suit or proceeding in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified parties are actual or potential parties to such claim or action) unless such settlement, compromise or consent includes an unconditional release of such indemnified party from all liability arising out of such claim, action, suit or proceeding and does not include any findings of fact or admissions of fault or culpability as to the indemnified party, or (ii) be liable for any settlement of any such action effected without its written consent (which consent shall not be unreasonably withheld), but if settled with the consent of the indemnifying party or if there be a final judgment for the plaintiff in any such action, the indemnifying party agrees to indemnify and hold harmless any indemnified party from and against any loss or liability by reason of such settlement or judgment.

(d) If the indemnification provided for in this Section 8 shall for any reason be unavailable to or insufficient to hold harmless an indemnified party under Section 8(a) or 8(b) in respect of any loss, claim, damage or liability, or any action in respect thereof, referred to therein, then each indemnifying party shall, in lieu of indemnifying such

indemnified party, contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability, or action in respect thereof, (i) in such proportion as shall be appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other, from the offering of the Shares or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and the Underwriters, on the other, with respect to the statements or omissions that resulted in such loss, claim, damage or liability, or action in respect thereof, as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Underwriters, on the other, with respect to such offering shall be deemed to be in the same proportion as the total net proceeds from the offering of the Shares purchased under this Agreement (before deducting expenses) received by the Company, as set forth in the table on the cover page of the Prospectus, on the one hand, and the total underwriting discounts and commissions received by the Underwriters with respect to the Shares purchased under this Agreement, as set forth in the table on the cover page of the Prospectus, on the other hand. The relative fault shall be determined by reference to whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or the Underwriters, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 8(d) were to be determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, damage or liability, or action in respect thereof, referred to above in this Section 8(d) shall be deemed to include, for purposes of this Section 8(d), any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 8(d), no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions received by it. 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. The Underwriters' obligations to contribute as provided in this Section 8(d) are several in proportion to their respective underwriting obligations and not joint.

(e) The Underwriters severally confirm and the Company acknowledges and agrees that the concession and reallowance figures and the paragraph relating to stabilization by the Underwriters appearing under the caption "Underwriting" in, the most recent Preliminary Prospectus and the Prospectus constitute the only information concerning such Underwriters furnished in writing to the Company by or on behalf of the Underwriters specifically for inclusion in any Preliminary Prospectus, any Registration Statement, the Pricing Disclosure Package, the Prospectus, any Issuer Free Writing Prospectus or in any amendment or supplement thereto or in any Marketing Materials.

9. *Defaulting Underwriters.* If, on any Delivery Date, any Underwriter defaults in the performance of its obligations to purchase Shares under this Agreement, the remaining non-

defaulting Underwriters shall be obligated to purchase or make arrangements reasonably satisfactory to the Company for other persons to purchase the Shares that the defaulting Underwriter agreed but failed to purchase on such Delivery Date in the respective proportions which the number of Firm Shares set forth opposite the name of each remaining non-defaulting Underwriter in Schedule I hereto bears to the total number of Firm Shares set forth opposite the names of all the remaining non-defaulting Underwriters in Schedule I hereto; *provided, however*, that the remaining non-defaulting Underwriters shall not be obligated to purchase any of the Shares on such Delivery Date if the total number of Shares that the defaulting Underwriter or Underwriters agreed but failed to purchase on such date exceeds 9.99% of the total number of Shares to be purchased on such Delivery Date, and any remaining non-defaulting Underwriter shall not be obligated to purchase more than 110% of the number of Shares that it agreed to purchase on such Delivery Date pursuant to the terms of Section 2. If the foregoing maximums are exceeded, the remaining non-defaulting Underwriters, or those other underwriters satisfactory to the Representative who so agree, shall have the right, but shall not be obligated, to purchase, in such proportion as may be agreed upon among them, all the Shares to be purchased on such Delivery Date. If the remaining Underwriters or other underwriters satisfactory to the Representative do not elect within 36 hours of the default to purchase the shares that the defaulting Underwriter or Underwriters agreed but failed to purchase on such Delivery Date, this Agreement (or, with respect to any Option Share Delivery Date, the obligation of the Underwriters to purchase, and of the Company to sell, the Option Shares) shall terminate without liability on the part of any non-defaulting Underwriter or the Company, except as provided in Section 16 and except that the Company will continue to be liable for the payment of expenses to the extent set forth in Sections 6 and 11. As used in this Agreement, the term “Underwriter” includes, for all purposes of this Agreement unless the context requires otherwise, any party not listed in Schedule I hereto that, pursuant to this Section 9, purchases Shares that a defaulting Underwriter agreed but failed to purchase.

Nothing contained herein shall relieve a defaulting Underwriter of any liability it may have to the Company for damages caused by its default. If other Underwriters are obligated or agree to purchase the Shares of a defaulting or withdrawing Underwriter, either the Representative or the Company may postpone the Delivery Date for up to seven full business days in order to effect any changes that in the opinion of counsel for the Company or counsel for the Underwriters may be necessary in the Registration Statement, the Prospectus or in any other document or arrangement.

10. *Termination.* The obligations of the Underwriters hereunder may be terminated by the Representative by notice given to and received by the Company prior to delivery of and payment for the Firm Shares if, prior to that time, any of the events described in Sections 7(l) and 7(m) shall have occurred or if the Underwriters shall decline to purchase the Shares for any reason permitted under this Agreement.

11. *Reimbursement of Underwriters’ Expenses.* If the Company shall fail to tender the Shares for delivery to the Underwriters for any reason or (b) the Underwriters shall decline to purchase the Shares for any reason permitted under this Agreement (other than as a result of any of the events set forth in Section 7(m)), the Company will reimburse the Underwriters for all reasonable out-of-pocket expenses (including reasonable fees and disbursements of counsel) incurred by the Underwriters in connection with this Agreement and the proposed purchase of the

Shares, and upon demand the Company shall pay the full amount thereof to the Representative. If this Agreement is terminated pursuant to Section 9 by reason of the default of one or more Underwriters, the Company shall not be obligated to reimburse any defaulting Underwriter on account of those expenses.

12. *Research Analyst Independence.* The Company acknowledges that the Underwriters' research analysts and research departments are required to be independent from their respective investment banking divisions and are subject to certain regulations and internal policies, and that such Underwriters' research analysts may hold views and make statements or investment recommendations and/or publish research reports with respect to the Company and/or the offering that differ from the views of their respective investment banking divisions. 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 conflict of interest that may arise from the fact that the views expressed by their independent research analysts and research departments may be different from or inconsistent with the views or advice communicated to the Company by such Underwriters' investment banking divisions. The Company acknowledges that each of the Underwriters is a full service securities firm and as such from time to time, subject to applicable securities laws, may effect transactions for its own account or the account of its customers and hold long or short positions in debt or equity securities of the companies that may be the subject of the transactions contemplated by this Agreement.

13. *No Fiduciary Duty.* The Company acknowledges and agrees that in connection with this offering, sale of the Shares or any other services the Underwriters may be deemed to be providing hereunder, notwithstanding any preexisting relationship, advisory or otherwise, between the parties or any oral representations or assurances previously or subsequently made by the Underwriters: (i) no fiduciary or agency relationship between the Company and any other person, on the one hand, and the Underwriters, on the other, exists; (ii) the Underwriters are not acting as advisors, expert or otherwise, to the Company, including, without limitation, with respect to the determination of the public offering price of the Shares, and such relationship between the Company, on the one hand, and the Underwriters, on the other, is entirely and solely commercial, based on arms-length negotiations; (iii) any duties and obligations that the Underwriters may have to the Company shall be limited to those duties and obligations specifically stated herein; and (iv) the Underwriters and their respective affiliates may have interests that differ from those of the Company. The Company hereby waives any claims that the Company may have against the Underwriters with respect to any breach of fiduciary duty in connection with this offering.

14. *Notices, Etc.* All statements, requests, notices and agreements hereunder shall be in writing, and:

(a) if to the Underwriters, shall be delivered or sent by mail or facsimile transmission to Laidlaw & Company (UK) Ltd., 521 Fifth Avenue, 12th Floor, New York, NY 10175, telecopy number: (212) 354-8783, Attention: Francis Ryan Smith, Vice President, with a copy to Sheppard, Mullin, Richter & Hampton LLP 30 Rockefeller Plaza, New York, New York 10112, Attention: Richard A. Friedman, Esq.; and

(b) if to the Company, shall be delivered or sent by mail or facsimile transmission to BioSig Technologies, Inc., 54 Wilton Road, 2nd Floor, Westport, Connecticut 06880, Attention: Kenneth Londoner (Fax: 203-429-5044), with a copy to Haynes and Boone, LLP, 30 Rockefeller Center, 26th Floor, New York, New York 10112, Attention: Rick A. Werner, Esq.

Any such statements, requests, notices or agreements shall take effect at the time of receipt thereof. The Company shall be entitled to act and rely upon any request, consent, notice or agreement given or made on behalf of the Underwriters by Laidlaw & Company (UK) Ltd.

15. *Persons Entitled to Benefit of Agreement.* This Agreement shall inure to the benefit of and be binding upon the Underwriters, the Company and their respective successors. This Agreement and the terms and provisions hereof are for the sole benefit of only those persons, except that (A) the representations, warranties, indemnities and agreements of the Company contained in this Agreement shall also be deemed to be for the benefit of the directors, officers and employees of the Underwriters and each person or persons, if any, who control any Underwriter within the meaning of Section 15 of the Securities Act and (B) the indemnity agreement of the Underwriters contained in Section 8(b) of this Agreement shall be deemed to be for the benefit of the directors of the Company, the officers of the Company who have signed the Registration Statement and any person controlling the Company within the meaning of Section 15 of the Securities Act. Nothing in this Agreement is intended or shall be construed to give any person, other than the persons referred to in this Section 15, any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision contained herein.

16. *Survival.* The respective indemnities, representations, warranties and agreements of the Company and the Underwriters contained in this Agreement or made by or on behalf of them, respectively, pursuant to this Agreement, shall survive the delivery of and payment for the Shares and shall remain in full force and effect, regardless of any investigation made by or on behalf of any of them or any person controlling any of them.

17. *Definition of the Terms “Business Day” and “Subsidiary”.* For purposes of this Agreement, (a) “**business day**” means each Monday, Tuesday, Wednesday, Thursday or Friday that is not a day on which banking institutions in New York are generally authorized or obligated by law or executive order to close and (b) “**subsidiary**” has the meaning set forth in Rule 405.

18. *Governing Law.* **This Agreement shall be governed by and construed in accordance with the laws of the State of New York.**

19. *Counterparts.* This Agreement may be executed in one or more counterparts and, if executed in more than one counterpart, the executed counterparts shall each be deemed to be an original but all such counterparts shall together constitute one and the same instrument.

20. *Amendments or Waivers.* No amendment or waiver of any provision of this Agreement, nor any consent or approval to any departure therefrom, shall in any event be effective unless the same shall be in writing and signed by the parties hereto.

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.

[Signature page follows]

If the foregoing correctly sets forth the agreement between the Company and the Underwriters, please indicate your acceptance in the space provided for that purpose below.

Very truly yours,

BIOSIG TECHNOLOGIES, INC.

By: /s/ Steve Chaussy

Name: Steve Chaussy

Title: Chief Financial Officer

Accepted:

Laidlaw & Company (UK) Ltd.

For itself and as Representative
of the several Underwriters named
in Schedule I hereto

By: /s/ Hugh Regan
Authorized Representative

SCHEDULE I

Underwriters	Number of Firm Shares
Laidlaw & Company (UK) Ltd.	2,500,000
Total	<u>2,500,000</u>

SCHEDULE II

ORALLY CONVEYED PRICING INFORMATION

1. Public Offering Price: \$4.00
 2. Number of Firm Shares Offered: 2,500,000
-

SCHEDULE III

PERMITTED WRITTEN TESTING-THE-WATERS COMMUNICATIONS

[None.]

SCHEDULE IV

LOCK-UP SIGNATORIES

Directors and Officers:

Kenneth L. Londoner

Steve Chaussy

Daniel E. Foley

Patrick J. Gallagher

David Weild, IV

Samuel E. Navarro

FORM OF LOCK-UP LETTER AGREEMENT

[Provided Separately]

NEITHER THIS SECURITY NOR THE SECURITIES FOR WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD UNLESS (I) SUCH SECURITIES HAVE BEEN REGISTERED FOR SALE PURSUANT TO THE SECURITIES ACT, (II) SUCH SECURITIES MAY BE SOLD PURSUANT TO RULE 144, OR (III) THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO IT THAT SUCH TRANSFER MAY LAWFULLY BE MADE WITHOUT REGISTRATION UNDER THE SECURITIES ACT. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.

PURSUANT TO SECTION 2 OF THIS WARRANT, ALL OR A PORTION OF THIS WARRANT MAY HAVE BEEN EXERCISED, AND THEREFORE THE ACTUAL NUMBER OF WARRANT SHARES REPRESENTED BY THIS WARRANT MAY BE LESS THAN THE AMOUNT SET FORTH ON THE FACE HEREOF.

UNDERWRITER COMMON STOCK PURCHASE WARRANT
BIOSIG TECHNOLOGIES, INC.

Warrant Shares: _____

Issue Date: July __, 2021

THIS UNDERWRITER COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the Issue Date set forth above and on or prior to 5:00 p.m. (New York City time) on July __, 2026 (the "Termination Date"), but not thereafter, to subscribe for and purchase from BioSig Technologies, Inc., a Delaware corporation (the "Company"), up to _____¹ shares (as subject to adjustment hereunder, the "Warrant Shares") of the Company's common stock, par value \$0.0001 per share (the "Common Stock"). The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b). This Warrant is being issued pursuant to that certain underwriting agreement, dated as of July __, 2021, by and among the Company and Laidlaw & Company (UK) Ltd., as representative of the several underwriters named therein (the "Underwriting Agreement").

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in the Underwriting Agreement.

¹ Insert number of shares equal to 5% of the aggregate number of shares of common stock sold in the offering.

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 Issue Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Warrant Shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Trading Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

"Trading Day" means a day on which the principal Trading Market located in the United States is open for trading.

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

Without limiting the rights of a Holder to receive Warrant Shares upon a "cashless exercise" and without limiting the liquidated damages provision in Section 2(d)(i) and the buy-in provision in Section 2(d)(iv), in no event will the Company be required to net cash settle a Warrant exercise.

b) Exercise Price. The exercise price per one Common Stock under this Warrant shall be \$ _____², subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. This Warrant may be exercised, in whole or in part, 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)(68) 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;

(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 Warrant Shares being issued may be tacked on to the holding period of this Warrant. 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 OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest

² Insert exercise price equal to 120% of public offering price.

preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Securities then outstanding 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 OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock is then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrant Shares then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by its transfer agent (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 the Holder or (B) the Warrant Shares are eligible for resale by the Holder without volume or manner-of-sale limitations pursuant to Rule 144 (in the event that the Warrant has been exercised on a cashless basis), and otherwise by physical delivery of a certificate, registered in the Company’s share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earlier of (i) the earlier of (A) two (2) Trading Days after the delivery to the Company of the Notice of Exercise and (B) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (ii) 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 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, 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 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, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

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

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, including, without limitation, the fees and expenses of legal counsel related to any opinion required by the transfer agent in connection with such issuance, 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 shareholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

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

or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one (1) Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% 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. "Common Stock Equivalents" means any securities of the Company which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive Common Stock. "Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person as such terms are used in and construed under Rule 405 under the Securities Act. "Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

Section 3. Certain Adjustments.

a) Share Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a share dividend or otherwise makes a distribution or distributions on Common Stock or any other equity or equity equivalent securities payable in Common Stock (which, for avoidance of doubt, shall not include any 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 share split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of Common Stock any share capital 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 shareholders 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) Reserved.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time while this Warrant is outstanding the Company grants, issues or sells any Common Stock Equivalents or rights to purchase shares, 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 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).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend (other than cash) or other distribution of its assets (or rights to acquire its assets) to holders of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of shares 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 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

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). To the extent that this Warrant has not been partially or completely exercised at the time of such Distribution, such portion of the Distribution shall be held in abeyance for the benefit of the Holder until the Holder has exercised this Warrant.

e) 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 (other than for the purpose of changing the Company's name and/or the jurisdiction of incorporation of the Company or a holding company for the Company, (ii) the Company (and all of its subsidiaries, taken as a whole), directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding shares of 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 shares of Common Stock are 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 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 shares of Common Stock (not including any 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 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 the Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate

Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, that if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, share or any combination thereof, or whether the holders of the Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; provided, further, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock of the Successor Entity (which Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black and Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the 100 day volatility obtained from the HVT function on Bloomberg as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the greater of (x) the last VWAP immediately prior to the public announcement of such Fundamental Transaction and (y) the last VWAP immediately prior to the consummation of such Fundamental Transaction and (D) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or by delivery of such other consideration, as applicable) within five (5) Trading Days of the Holder's election (or, if later, on the effective date of the Fundamental Transaction). The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant and the other Transaction Documents in accordance with the provisions of this Section 3(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 share capital 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 share capital (but taking into account the relative value of the Common Stock pursuant to such Fundamental Transaction and the value of such share capital, such number of share capital 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.

f) 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.

g) 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 share capital of any class or of any rights, (D) the approval of any shareholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs

of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 4. Transfer of Warrant.

a) Transferability. Subject to 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 two (2) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

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

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

d) Transfer Restrictions. If, at the time of the surrender of this Warrant in connection with any transfer of this Warrant, the transfer of this Warrant shall not be either (i) registered pursuant to an effective registration statement under the Securities Act and under applicable state securities or blue sky laws or (ii) eligible for resale without volume or manner-of-sale restrictions or current public information requirements pursuant to Rule 144, the Company may require, as a condition of allowing such transfer, that the Holder or transferee of this Warrant, as the case may be, provide to the Company, at the Company's sole expense, an opinion of counsel, the form and substance of which opinion shall be reasonably satisfactory to the Company to the effect that the transfer of this Warrant does not require registration under the Securities Act.

e) 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 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) Grant of Right. Unless a registration statement covering the exercise of this Warrant and the sale of the Warrant Shares by the Holder is in effect and available, the Holder shall have the right to include the Warrant Shares as part of any other registration of securities filed by the Company (other than in connection with a transaction contemplated by Rule 145(a) promulgated under the Securities Act, or pursuant to Form S-8 or any equivalent form); provided, however, that if, solely in connection with any primary underwritten public offering for the account of the Company, the managing underwriter(s) thereof shall, in its reasonable discretion, impose a limitation on the number of shares of Common Stock which may be included in the registration statement because, in such underwriter(s)' judgment, marketing or other factors dictate such limitation is

necessary to facilitate public distribution, then the Company shall be obligated to include in such registration statement only such limited portion of the Warrant Shares with respect to which the Holder requested inclusion hereunder as the underwriter shall reasonably permit. Any exclusion of Warrant Shares shall be made pro rata among the holders seeking to include registrable securities in proportion to the number of Warrant Shares sought to be included by such holders; provided, however, that the Company shall not exclude any Warrant Shares unless the Company has first excluded all outstanding securities, the holders of which are not entitled to inclusion of such securities in such registration statement or are not entitled to pro rata inclusion with the Warrant Shares. Notwithstanding the foregoing, the Company shall not be required to register any Warrant Shares pursuant to this Section that are subject of a then effective registration statement.

b) Terms. The Company shall bear all fees and expenses attendant to registering the Warrant Shares pursuant to Section 5(a) hereof, but the holders shall pay any and all underwriting commissions and the expenses of any legal counsel selected by the holders to represent them in connection with the sale of the Warrant Shares. In the event of such a proposed registration, the Company shall furnish the then holders of outstanding Warrant Shares with not less than fifteen (15) 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 registration statement filed by the Company until such time as all of the Warrant Shares have been sold by the Holder. The holders of the Warrant Shares shall exercise the "piggy-back" rights provided for herein by giving written notice within five (5) days of the receipt of the Company's notice of its intention to file a registration statement. Except as otherwise provided in this Warrant, there shall be no limit on the number of times the Holder may request registration under this Section 5(b).

Section 6. Miscellaneous.

a) No Rights as Shareholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a shareholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3.

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

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its articles of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

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

e) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Underwriting 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) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies, notwithstanding the fact that all rights hereunder terminate on the Termination Date. Without limiting any other provision of this Warrant or the Underwriting 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 to the address for the Holder in the Warrant Register.

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

BIOSIG TECHNOLOGIES, INC.

By: _____
Name:
Title:

NOTICE OF EXERCISE

TO: **BIOSIG TECHNOLOGIES, INC.**

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

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

in lawful money of the United States; or

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

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

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

(4) Accredited Investor. The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____



ASSIGNMENT FORM

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

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

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____, _____

Holder's Signature: _____

Holder's Address: _____

July 7, 2021

BioSig Technologies, Inc.
54 Wilton Road, 2nd Floor
Westport, Connecticut

Ladies and Gentlemen:

We have acted as counsel for BioSig Technologies, Inc., a Delaware corporation (the "Company"), in connection with the filing with the Securities and Exchange Commission (the "**Commission**") pursuant to Rule 424(b) under the Securities Act of 1933, as amended (the "**Act**") of the Company's prospectus supplement, dated July 1, 2021 (the "**Prospectus Supplement**"), forming part of the registration statement on Form S-3, initially filed by the Company with the Securities and Exchange Commission on December 31, 2020, and declared effective on January 12, 2021 (the "**Registration Statement**"). The Prospectus Supplement relates to the proposed sale of 2,500,000 shares (the "**Shares**") of the Company's common stock, \$0.001 par value per share (the "**Common Stock**"), pursuant to that certain Underwriting Agreement, dated July 2, 2021, by and among the Company and the underwriters named therein (the "**Underwriting Agreement**").

In rendering the opinions expressed herein, we have examined and relied upon the originals, or copies certified or otherwise identified to our satisfaction, of (i) the Company's Certificate of Incorporation and bylaws, each as amended and/or restated to date ("**Company Charter Documents**"); (ii) certain resolutions of the Pricing Committee of the Board of Directors of the Company related to the filing of the Prospectus Supplement, the authorization and issuance of the Shares and related matters; (iii) the Registration Statement, including the prospectus, and all exhibits thereto; (iv) the Prospectus Supplement and the prospectus included in the Registration Statement dated January 12, 2021 (the "**Base Prospectus**" and together with the Prospectus Supplement, the "**Prospectus**"); (v) the Underwriting Agreement; (vi) a specimen of the Company's Common Stock certificate; and (vii) such other corporate records of the Company, as we have deemed necessary or appropriate for the purposes of the opinions hereafter expressed.

As to questions of fact material to the opinions expressed below, we have, without independent verification of their accuracy, relied to the extent we deem reasonably appropriate upon the representations and warranties of the Company contained in such documents, records, certificates, instruments or representations furnished or made available to us by the Company.

In making the foregoing examination, we have assumed (i) the genuineness of all signatures, (ii) the authenticity of all documents submitted to us as originals, (iii) the conformity to original documents of all documents submitted to us as certified or photostatic copies, (iv) that all agreements or instruments we have examined are the valid, binding and enforceable obligations of the parties thereto, and (v) that all factual information on which we have relied was accurate and complete.

We have also assumed that, at the time of the issuance of the Shares: (i) the Company will continue to be incorporated and in existence and good standing in its jurisdiction of organization; (ii) the Registration Statement, and any amendments thereto (including post-effective amendments) will have remained effective, (iii) no stop order of the Commission preventing or suspending the use of the Prospectus will have been issued; (iv) the resolutions of the Pricing Committee of the Board of Directors of the Company referred to above will not have been modified or rescinded; (v) the Underwriting Agreement will have been duly authorized and validly executed and delivered by the parties thereto (other than the Company) and will be enforceable obligations of the parties thereto (other than the Company); (vi) all requirements of the DGCL and the Company Charter Documents will be complied with when the Shares are issued; (vii) all Shares will be issued and sold in compliance with applicable federal and state securities laws and in the manner stated in the Prospectus, and (viii) neither the issuance nor sale of the Shares will result in a violation of any agreement or instrument then binding upon the Company or any order of any court or governmental body having jurisdiction over the Company.

Based upon the foregoing and subject to the assumptions and qualifications stated herein, we are of the opinion that upon payment and delivery in accordance with the Underwriting Agreement the Shares will be validly issued, fully paid and non-assessable.

The opinions expressed herein are limited exclusively to the General Corporation Law of the State of Delaware (the "DGCL") and applicable provisions of the Delaware Constitution and reported judicial decisions interpreting the DGCL and such provisions of the Delaware Constitution and we have not considered, and express no opinion on, any other laws or the laws of any other jurisdiction.

We hereby consent to the filing of this opinion with the Commission as Exhibit 5.1 to the Registration Statement and to the reference to our firm under the heading "Legal Matters" in the Prospectus. In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,
/s/ Haynes and Boone, LLP

Haynes and Boone, LLP

July 1, 2021



BioSig Announces Proposed Public Offering of Common Stock

Westport, CT, July 1, 2021--(GLOBE NEWSWIRE)--BioSig Technologies, Inc. (Nasdaq: BSGM) ("BioSig" or the "Company"), a medical technology company commercializing an innovative biomedical signal processing platform designed to improve signal fidelity and uncover the full range of ECG and intra-cardiac signals, today announced that it has commenced an underwritten public offering of its common stock. BioSig also intends to grant the underwriters a 30-day option to purchase up to an additional 15% of the number of shares of common stock offered in the public offering. The offering is subject to market and other conditions and there can be no assurance as to whether or when the offering may be completed, or as to the actual size or terms of the offering.

Laidlaw & Company (UK) Ltd. is acting as sole book-running manager.

BioSig intends to use the net proceeds from the offering for the continuation of full commercialization activities related to the PURE EP™ System, including additional support for organizational development, the continuation of our ongoing research and development activities for new products, and general corporate purposes and other capital expenditures.

A shelf registration statement on Form S-3 (Registration No. 333-251859) relating to the public offering of the shares of common stock described above was previously filed with the Securities and Exchange Commission (SEC) and declared effective on January 12, 2021. A preliminary prospectus supplement and accompanying prospectus relating to the underwritten public offering will be filed with the SEC and will be available on the SEC's website at www.sec.gov. Copies of the preliminary prospectus supplement (when available) and accompanying prospectus relating to the offering may be obtained from Laidlaw & Company (UK) Ltd., 521 Fifth Ave., 12th Floor, New York, NY 10175, Attention: Syndicate Dept.; email: syndicate@laidlawltd.com.

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 other 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 other jurisdiction. Any offer, if at all, will be made only by means of the prospectus supplement and accompanying prospectus forming a part of the effective registration statement.

About BioSig Technologies

BioSig Technologies is a medical technology company commercializing an innovative biomedical signal processing platform designed to improve signal fidelity and uncover the full range of ECG and intra-cardiac signals (www.biosig.com).

The Company's first product, PURE EP(tm) System is a computerized system intended for acquiring, digitizing, amplifying, filtering, measuring and calculating, displaying, recording and storing of electrocardiographic and intracardiac signals for patients undergoing electrophysiology (EP) procedures in an EP laboratory.

Forward-looking Statements

This press release contains “forward-looking statements.” Such statements may be preceded by the words “intends,” “may,” “will,” “plans,” “expects,” “anticipates,” “projects,” “predicts,” “estimates,” “aims,” “believes,” “hopes,” “potential” or similar words. Forward- looking statements are not guarantees of future performance, are based on certain assumptions and are subject to various known and unknown risks and uncertainties, many of which are beyond the Company’s control, and cannot be predicted or quantified and consequently, actual results may differ materially from those expressed or implied by such forward-looking statements. Such risks and uncertainties include, without limitation, risks and uncertainties associated with (i) the geographic, social and economic impact of COVID-19 on our ability to conduct our business and raise capital in the future when needed, (ii) our inability to manufacture our products and product candidates on a commercial scale on our own, or in collaboration with third parties; (iii) difficulties in obtaining financing on commercially reasonable terms; (iv) changes in the size and nature of our competition; (v) loss of one or more key executives or scientists; and (vi) difficulties in securing regulatory approval to market our products and product candidates. More detailed information about the Company and the risk factors that may affect the realization of forward-looking statements is set forth in the Company’s filings with the Securities and Exchange Commission (SEC), including the Company’s Annual Report on Form 10-K and its Quarterly Reports on Form 10-Q. Investors and security holders are urged to read these documents free of charge on the SEC’s website at <http://www.sec.gov>. The Company assumes no obligation to publicly update or revise its forward-looking statements as a result of new information, future events or otherwise.

Contacts

Andrew Ballou
BioSig Technologies, Inc.
Vice President, Investor Relations
54 Wilton Road, 2nd floor
Westport, CT 06880
aballou@biosigtech.com
203-409-5444, x133



BioSig Announces Pricing of Public Offering of Common Stock

Westport, CT, July 02, 2021--(GLOBE NEWSWIRE)--BioSig Technologies, Inc. (Nasdaq: BSGM) ("BioSig" or the "Company"), a medical technology company commercializing an innovative biomedical signal processing platform designed to improve signal fidelity and uncover the full range of ECG and intra-cardiac signals, today announced pricing of its previously announced underwritten public offering of 2,500,000 shares of its common stock, \$0.001 par value per share, at a price to the public of \$4.00 per share. The gross proceeds to BioSig from this offering are expected to be approximately \$10 million, or approximately \$11.5 million if the underwriter exercises its 30-day option to purchase an additional 15% of the number of shares of common stock offered in the public offering in full, before deducting the underwriting discounts and commissions and estimated offering expenses payable by BioSig. The offering is expected to close on July 7, 2021, subject to the satisfaction of customary closing conditions.

Laidlaw & Company (UK) Ltd. is acting as sole book-running manager for the offering.

BioSig intends to use the net proceeds from the offering for the continuation of full commercialization activities related to the PURE EP™ System, including additional support for organizational development, the continuation of our ongoing research and development activities for new products, and general corporate purposes and other capital expenditures.

A shelf registration statement on Form S-3 (Registration No. 333-251859) relating to the public offering of the shares of common stock described above was previously filed with the Securities and Exchange Commission (SEC) and declared effective on January 12, 2021. A preliminary prospectus supplement and accompanying prospectus relating to the offering have been filed with the SEC and are available on the SEC's website at www.sec.gov. A final prospectus supplement and accompanying prospectus relating to the offering will be filed with the SEC and will be available on the SEC's website at www.sec.gov. Copies of the final prospectus supplement, when available, and accompanying prospectus relating to the offering may be obtained from Laidlaw & Company (UK) Ltd., 521 Fifth Ave., 12th Floor, New York, NY 10175, Attention: Syndicate Dept.; email: syndicate@laidlawltd.com.

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 other 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 other jurisdiction. Any offer, if at all, will be made only by means of the prospectus supplement and accompanying prospectus forming a part of the effective registration statement.

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