

**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): **September 29, 2017**

JAGUAR HEALTH, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation)

001-36714

(Commission File Number)

46-2956775

(IRS Employer Identification No.)

201 Mission Street, Suite 2375

San Francisco, California

(Address of principal executive offices)

94105

(Zip Code)

Registrant's telephone number, including area code: **(415) 371-8300**

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

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

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 September 29, 2017, Jaguar Health, Inc. (the "Company") entered into an underwriting agreement (the "Underwriting Agreement") with Maxim Group LLC ("Maxim"), as representative of the several underwriters named therein (the "Underwriters") with respect to the issuance and sale of an aggregate of 21,250,000 shares (the "Firm Shares") of the Company's voting common stock, par value \$0.0001 per share (the "Common Stock"), in an underwritten public offering. Pursuant to the Underwriting Agreement, the Company also granted Maxim an option to purchase an additional 3,187,500 shares (the "Option Shares," and together with the Firm Shares, the "Shares") of Common Stock to cover any over-allotments made by the Underwriters in the sale and distribution of the shares of Common Stock. The Firm Shares are being offered, and if Maxim exercises its over-allotment option, the Option Shares will be offered, to the public at a price of \$0.20 per Share.

Pursuant to the Underwriting Agreement, the Company agreed to pay the Underwriters a cash fee equal to 7% of the gross proceeds of the offering, provided however that a lower discount will apply to any portion of the offering that is purchased by a certain institutional investor introduced to the Underwriters by the Company. The Company has also agreed to reimburse Maxim for its travel and other out-of-pocket expenses related to the offering, including, without limitation, the reasonable fees and expenses of counsel to Maxim, up to \$75,000 in the aggregate.

The underwriting agreement contains customary representations, warranties and agreements by the Company, customary conditions to closing, indemnification obligations of the Company and Maxim, including for liabilities under the Securities Act of 1933, as amended, other obligations of the parties and termination provisions. The representations, warranties and agreements made by the parties in the Underwriting Agreement were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties, and should not be deemed to be a representation, warranty or agreement to or in favor of any other party. In addition, the assertions embodied in any representations, warranties and agreements contained in the Underwriting Agreement may be subject to qualifications with respect to knowledge and materiality different from those applicable to security holders generally. Moreover, such representations, warranties or agreements were accurate only as of the date when made, except where expressly stated otherwise. Accordingly, such representations, warranties and agreements should not be relied on as accurately representing the current state of the Company's affairs at any time.

Under the Underwriting Agreement, subject to certain exceptions, until 120 days following September 29, 2017, neither the Company nor any of its subsidiaries may issue, enter into any agreement to issue or announce the issuance or proposed issuance of any shares of Common Stock or Common Stock equivalents without Maxim's prior written consent. In addition, until 120 days following September 29, 2017, the Company is prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its subsidiaries of Common Stock or Common Stock equivalents (or a combination of units thereof) involving a variable rate transaction (as defined in the Underwriting Agreement) without Maxim's prior written consent.

The Company expects to receive aggregate net proceeds, after deducting underwriter discounts and commissions and other estimated expenses related to the offering, in the amount of approximately \$3.55 million, or approximately \$4.15 million if Maxim exercises in full its over-allotment option. The Company intends to use the net proceeds from the offering for the commercialization of Mytesi, the Company's lead prescription drug product, and for working capital and general corporate purposes.

The offering closed on October 3, 2017.

The Shares are being offered and sold pursuant to the Company's shelf registration statement on Form S-3 (File No. 333-220236) initially filed with the U.S. Securities and Exchange Commission (the "Commission") on August 29, 2017 and declared effective on September 14, 2017. A prospectus supplement relating to the offering was filed with the Commission on October 2, 2017.

The foregoing description of the Underwriting Agreement is qualified in its entirety by reference to the full text of the Underwriting Agreement, which is filed as Exhibit 1.1 to this Current Report on Form 8-K and incorporated herein by reference in its entirety.

The Company's press release, dated September 29, 2017, announcing the pricing of the offering, is furnished as Exhibit 99.1 to this report.

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Disclaimer on Forward-looking Statements

This Current Report on Form 8-K contains "forward-looking statements" within the meaning of section 27A of the Securities Act of 1933 and section 21E of the Securities Exchange Act of 1934. These include statements regarding the use of proceeds from the offering. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expect," "plan," "aim," "anticipate," "could," "intend," "target," "project," "contemplate," "believe," "estimate," "predict," "potential" or "continue" or the negative of these terms or other similar expressions. The forward-looking statements in this release are only predictions. The Company has based these forward-looking statements largely on its current expectations and projections about future events. These forward-looking statements speak only as of the date of this release and are subject to a number of risks, uncertainties and assumptions, some of which cannot be predicted or quantified and some of which are beyond the Company's control. Except as required by applicable law, the Company does not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

Exhibit No.	Description
1.1	Underwriting Agreement, dated September 29, 2017, by and between Jaguar Health, Inc. and Maxim Group LLC
99.1	Press Release, dated September 29, 2017.

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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.

JAGUAR HEALTH, INC.

Date: October 3, 2017

By: /s/ Karen S. Wright
Name: Karen S. Wright
Title: Chief Financial Officer

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21,250,000 SHARES OF COMMON STOCK

OF

JAGUAR HEALTH, INC.

UNDERWRITING AGREEMENT

September 29, 2017

Maxim Group LLC
 As the Representative of the
 Several underwriters, if any, named in Schedule I hereto
 405 Lexington Avenue, 2nd Floor
 New York, New York 10174

Ladies and Gentlemen:

The undersigned, Jaguar Health, Inc., a company incorporated under the laws of Delaware (collectively with its subsidiaries and affiliates, including, without limitation, all entities disclosed or described in the Registration Statement as being subsidiaries or affiliates of Jaguar Health, Inc., which for the avoidance of any doubt shall include Napo Pharmaceuticals, Inc., the "Company"), hereby confirms its agreement (this "Agreement") with the several underwriters (such underwriters, including the Representative (as defined below), the "Underwriters" and each an "Underwriter") named in Schedule I hereto for which Maxim Group LLC is acting as representative to the several Underwriters (the "Representative" and if there are no Underwriters other than the Representative, references to multiple Underwriters shall be disregarded and the term Representative as used herein shall have the same meaning as Underwriter) on the terms and conditions set forth herein.

It is understood that the several Underwriters are to make a public offering of the Securities as soon as the Representative deems it advisable to do so. The Securities are to be initially offered to the public at the initial public offering price set forth in the Prospectus. The Representative may from time to time thereafter change the public offering price and other selling terms.

It is further understood that you will act as the Representative for the Underwriters in the offering and sale of the Closing Shares and, if any, the Option Shares in accordance with this Agreement.

**ARTICLE I.
 DEFINITIONS**

1.1 Definitions. In addition to the terms defined elsewhere in this Agreement, for all purposes of this Agreement, the following terms have the meanings set forth in this Section 1.1:

"Action" shall have the meaning ascribed to such term in Section 3.1(k).

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

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

"Business Day" means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

"Closing" means the closing of the purchase and sale of the Closing Shares pursuant to Section 2.1.

"Closing Date" means the hour and the date on the Trading Day on which all conditions precedent to (i) the Underwriters' obligations to pay the Closing Purchase Price and (ii) the Company's obligations to deliver the Closing Shares, in each case, have been satisfied or waived, but in no event later than 10:00 a.m. (New York City time) on the third Trading Day following the date hereof or at such earlier time as shall be agreed upon by the Representative and the Company.

"Closing Purchase Price" shall have the meaning ascribed to such term in Section 2.1(b), which aggregate purchase price shall be net of the underwriting discounts and commissions.

"Closing Shares" shall have the meaning ascribed to such term in Section 2.1(a).

"Combined Purchase Price" shall have the meaning ascribed to such term in Section 2.1(b).

"Commission" means the United States Securities and Exchange Commission.

"Common Stock" means collectively, the Voting Common Stock and the Non-Voting Common Stock.

"Common Stock Equivalents" means any securities of the Company or the Subsidiaries 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.

“Company Counsel” means Reed Smith LLP, with offices located at 1510 Page Mill Road, Suite 110, Palo Alto, California 94304.

“Disclosure Schedules” means the Disclosure Schedules of the Company delivered concurrently herewith.

“Effective Date” shall have the meaning ascribed to such term in Section 3.1(f).

“EGS” means Ellenoff Grossman & Schole LLP, with offices located at 1345 Avenue of the Americas, New York, New York 10105.

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

“Execution Date” shall mean the date on which the parties execute and enter into this Agreement.

“Exempt Issuance” means the issuance of (a) shares of Common Stock or options to employees, officers or directors of the Company pursuant to any stock or option plan duly adopted for such purpose by a majority of the non-employee members of the Board of Directors or a majority of the members of a committee of non-employee directors established for such purpose, (b) securities exercisable or exchangeable for, redeemable for, or convertible into shares of Common Stock issued and outstanding on the date of this Agreement, provided that such securities have not been amended without the prior written consent of the Representative since the date of this Agreement to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities, and (c) securities issued pursuant to acquisitions or strategic transactions approved by a majority of the disinterested directors of the Company, provided that, in the case of clause (c), such securities are issued as “restricted securities” (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith within 90 days following the Closing Date, and provided that any such issuance shall only be to a Person (or to the equity holders of a Person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities.

“FCPA” means the Foreign Corrupt Practices Act of 1977, as amended.

“FINRA” means the Financial Industry Regulatory Authority.

“GAAP” shall have the meaning ascribed to such term in Section 3.1(i).

“Indebtedness” means (a) any liabilities for borrowed money or amounts owed in

excess of \$50,000 (other than trade accounts payable incurred in the ordinary course of business), (b) all guaranties, endorsements and other contingent obligations in respect of indebtedness of others, whether or not the same are or should be reflected in the Company’s consolidated balance sheet (or the notes thereto), except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (c) the present value of any lease payments in excess of \$50,000 due under leases required to be capitalized in accordance with GAAP.

“Liens” means a lien, charge, pledge, security interest, encumbrance, right of first refusal, preemptive right or other restriction.

“Lock-Up Agreements” means the lock-up agreements that are delivered on the date hereof by each of the Company’s officers and directors holding Common Stock and Common Stock Equivalents equal to, on a fully diluted basis, more than 1% of the Company’s issued and outstanding Common Stock, in the form of Exhibit A attached hereto.

“Material Adverse Effect” means (i) a material adverse effect on the legality, validity or enforceability of any Transaction Document, (ii) a material adverse effect on the results of operations, assets, business, prospects or condition (financial or otherwise) of the Company and the Subsidiaries, taken as a whole or (iii) a material adverse effect on the Company’s ability to perform in any material respect on a timely basis its obligations under any Transaction Document.

“Non-Voting Common Stock” means the non-voting common stock of the Company, par value \$0.0001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

“Offering” shall have the meaning ascribed to such term in Section 2.1(c).

“Option Closing Date” shall have the meaning ascribed to such term in Section 2.2(c).

“Option Closing Purchase Price” shall have the meaning ascribed to such term in Section 2.2(b), which aggregate purchase price shall be net of the underwriting discounts and commissions.

“Option Shares” shall have the meaning ascribed to such term in Section 2.2(a).

“Over-Allotment Option” shall have the meaning ascribed to such term in Section 2.2.

“Per Share Purchase Price” shall have the meaning ascribed to such term in Section 2.1(b).

“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.

“Preliminary Prospectus” means, if any, any preliminary prospectus relating to the Securities included in the Registration Statement or filed with the Commission pursuant to Rule 424(b).

“Proceeding” means an action, claim, suit, investigation or proceeding (including, without limitation, an informal investigation or partial proceeding, such as a deposition), whether commenced or threatened.

“Prospectus” means the final prospectus filed for the Registration Statement.

“Prospectus Supplement” means, if any, any supplement to the Prospectus complying with Rule 424(b) of the Securities Act that is filed with the Commission.

“Referral Closing Shares” shall have the meaning ascribed to such term in Section 2.1(b).

“Registration Statement” means, collectively, the various parts of the registration statement prepared by the Company on Form S-3 (File No. 333-220236) with respect to the Securities, each as amended as of the date hereof, including the Prospectus and Prospectus Supplement, if any, the Preliminary Prospectus, if any, and all exhibits filed with or incorporated by reference into such registration statement.

“Required Approvals” shall have the meaning ascribed to such term in Section 3.1(e).

“Rule 424” means Rule 424 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule.

“SEC Reports” shall have the meaning ascribed to such term in Section 3.1(i).

“Securities” means, collectively, the Closing Shares and, if any, the Option Shares.

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

“Share Purchase Price” shall have the meaning ascribed to such term in Section 2.1(b).

“Subsidiary” means any subsidiary of the Company that is a “significant subsidiary” as defined in Rule 1-02 of Regulation S-X under the Securities Act and shall, where applicable, also include any direct or indirect significant subsidiary of the Company formed or acquired after the date hereof.

“Trading Day” means a day on which the principal Trading Market is open for trading.

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

“Transaction Documents” means this Agreement, the Lock-Up Agreements, and any other documents or agreements executed in connection with the transactions contemplated hereunder.

“Transfer Agent” means Computershare Trust Company, N.A., with offices located at 8742 Lucent Blvd., Suite 225 Highlands Ranch, CO 80129, and any successor transfer agent of the Company.

“Underwriter Information” shall have the meaning ascribed to such term in Section 6.1.

“Voting Common Stock” means the voting common stock of the Company, par value \$0.0001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

ARTICLE II. PURCHASE AND SALE

2.1 Closing.

(a) Upon the terms and subject to the conditions set forth herein, the Company agrees to sell in the aggregate 21,250,000 shares of Voting Common Stock, and each Underwriter agrees to purchase, severally and not jointly, at the Closing, the number of shares of Voting Common Stock (the “Closing Shares”) set forth opposite the name of such Underwriter on Schedule I hereof.

(b) The aggregate purchase price for the Closing Shares shall equal the amount set forth opposite the name of such Underwriter on Schedule I hereto (the "Closing Purchase Price"). Such Closing Purchase Price shall be determined by multiplying the number of Closing Shares purchased by each Underwriter by a per share purchase price equal to \$0.20, less underwriting discounts and commissions of seven percent (7%) (such per share purchase price, net of the seven percent (7%) underwriting discounts and commissions, the "Per Share Purchase Price"); provided, however, that the underwriting discounts and commissions payable to the Underwriters will be decreased for any Closing Shares purchased by an Underwriter that will be immediately distributed by such Underwriter to an institutional investor introduced to such Underwriter by the Company and listed on Appendix A (such Closing Shares, the "Referral Closing Shares")

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as follows: (1) underwriting discounts and commissions will be decreased to six percent (6%) for the first \$3,000,000 of Referral Closing Shares; and (2) underwriting discounts and commissions will be decreased to five percent (5%) for any incremental dollar amount of Referral Closing Shares thereafter.

(c) On the Closing Date, each Underwriter shall deliver or cause to be delivered to the Company, via wire transfer, immediately available funds equal to such Underwriter's Closing Purchase Price and the Company shall deliver to, or as directed by, such Underwriter its respective Closing Shares and the Company shall deliver the other items required pursuant to Section 2.3 deliverable at the Closing. Upon satisfaction of the covenants and conditions set forth in Sections 2.3 and 2.4, the Closing shall occur at the offices of EGS or such other location as the Company and Representative shall mutually agree. The Securities are to be offered initially to the public at the offering price set forth on the cover page of the Prospectus Supplement (the "Offering").

2.2 Over-Allotment Option.

(a) For the purposes of covering any over-allotments in connection with the distribution and sale of the Closing Shares, the Representative is hereby granted an option (the "Over-Allotment Option") to purchase, in the aggregate, up to 3,187,500 shares of Voting Common Stock (the "Option Shares") which each may be purchased at the Per Share Purchase Price (which for the avoidance of any doubt shall in all cases be \$0.186).

(b) In connection with an exercise of the Over-Allotment Option, the purchase price to be paid for the Option Shares is equal to the product of the Per Share Purchase Price multiplied by the number of Option Shares to be purchased (the aggregate purchase price to be paid on an Option Closing Date, the "Option Closing Purchase Price").

(c) The Over-Allotment Option granted pursuant to this Section 2.2 may be exercised by the Representative as to all (at any time) or any part (from time to time) of the Option Shares within forty-five (45) days after the Execution Date. An Underwriter will not be under any obligation to purchase any Option Shares prior to the exercise of the Over-Allotment Option by the Representative. The Over-Allotment Option granted hereby may be exercised by the giving of oral notice to the Company from the Representative, which must be confirmed in writing by overnight mail or facsimile or other electronic transmission setting forth the number of Option Shares to be purchased and the date and time for delivery of and payment for the Option Shares (each, an "Option Closing Date"), which will not be later than three (3) full Business Days after the date of the notice or such other time as shall be agreed upon by the Company and the Representative, at the offices of EGS or at such other place (including remotely by facsimile or other electronic transmission) as shall be agreed upon by the Company and the Representative. If such delivery and payment for the Option Shares does not occur on the Closing Date, each Option Closing Date will be as set forth in the notice. Upon exercise of the Over-Allotment Option, the Company will become obligated to convey to the Underwriters, and, subject to the terms and conditions set forth herein, the Underwriters will become obligated to purchase, the number of Option Shares specified

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in such notice. The Representative may cancel the Over-Allotment Option at any time prior to the expiration of the Over-Allotment Option by written notice to the Company.

2.3 Deliveries. The Company shall deliver or cause to be delivered to each Underwriter (if applicable) the following:

(i) At the Closing Date, the Closing Shares and, as to each Option Closing Date, if any, the applicable Option Shares, which shares shall be delivered via The Depository Trust Company Deposit or Withdrawal at Custodian system for the accounts of the several Underwriters;

(ii) At the Closing Date, a legal opinion of Company Counsel addressed to the Underwriters, including, without limitation, a negative assurance letter, in form and substance satisfactory to the Representative and previously agreed to and as to the Closing Date and as to each Option Closing Date, if any, a bring-down opinion from Company Counsel in form and substance reasonably satisfactory to the Representative and the favorable opinions of intellectual property legal counsel and FDA legal counsel to the Company, including, without limitation, a negative assurance letter, addressed to the Underwriters and in form and substance satisfactory to the Representative;

(iii) Contemporaneously herewith, a cold comfort letter, addressed to the Underwriters and in form and substance satisfactory in all respects to the Representative from the Company Auditor dated, respectively, as of the date of this Agreement and a bring-down letter dated as of the Closing Date and each Option Closing Date, if any;

(iv) On the Closing Date and on each Option Closing Date, the duly executed and delivered Officer's Certificate, in the form agreed to by the parties signatory hereto;

(v) On the Closing Date and on each Option Closing Date, the duly executed and delivered Secretary's Certificate, in the form agreed to by the parties signatory hereto; and

(vi) Contemporaneously herewith, the duly executed and delivered Lock-Up Agreements.

2.4 Closing Conditions. The respective obligations of each Underwriter hereunder in connection with the Closing and each Option Closing Date are subject to the following conditions being met:

- (i) the accuracy in all material respects when made and on the date in question (other than representations and warranties of the Company already qualified by materiality, which shall be true and correct in all respects) of the representations and warranties of the Company contained herein (unless as of a specific date therein);
- (ii) all obligations, covenants and agreements of the Company required to be performed at or prior to the date in question shall have been performed;

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- (iii) the delivery by the Company of the items set forth in Section 2.3 of this Agreement;
- (iv) the Registration Statement shall be effective on the date of this Agreement and at each of the Closing Date and each Option Closing Date, if any, no stop order suspending the effectiveness of the Registration Statement shall have been issued and no proceedings for that purpose shall have been instituted or shall be pending or contemplated by the Commission and any request on the part of the Commission for additional information shall have been complied with to the reasonable satisfaction of the Representative;
- (v) by the Execution Date, if required by FINRA, the Underwriters shall have received clearance from FINRA as to the amount of compensation allowable or payable to the Underwriters as described in the Registration Statement;
- (vi) the Closing Shares and the Option Shares have been approved for listing on the Trading Market; and
- (vii) prior to and on each of the Closing Date and each Option Closing Date, if any: (i) there shall have been no material adverse change in the condition or prospects or the business activities, financial or otherwise, of the Company from the latest dates as of which such condition is set forth in the Registration Statement and Prospectus; (ii) no action suit or proceeding, at law or in equity, shall have been pending or threatened against the Company or any Affiliate of the Company before or by any court or federal or state commission, board or other administrative agency wherein an unfavorable decision, ruling or finding could reasonably be expected to materially adversely affect the business, operations, prospects or financial condition or income of the Company, except as set forth in the Registration Statement and Prospectus; (iii) no stop order shall have been issued under the Securities Act and no proceedings therefor shall have been initiated or threatened by the Commission; and (iv) the Registration Statement and the Prospectus and any amendments or supplements thereto shall contain all material statements which are required to be stated therein in accordance with the Securities Act and the rules and regulations thereunder and shall conform in all material respects to the requirements of the Securities Act and the rules and regulations thereunder, and neither the Registration Statement nor the Prospectus nor any amendment or supplement thereto shall contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

ARTICLE III. REPRESENTATIONS AND WARRANTIES

3.1 Representations and Warranties of the Company. Except as set forth in the Disclosure Schedules, which Disclosure Schedules shall be deemed a part hereof and shall qualify any representation or otherwise made herein to the extent of the disclosure contained in the corresponding section of the Disclosure Schedules, the Company represents and warrants to

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the Underwriters as of the Execution Date, as of the Closing Date and as of each Option Closing Date, if any, as follows:

(a) Subsidiaries. All of the direct and indirect Subsidiaries of the Company are set forth in the SEC Reports to the extent required under the Securities Act and the Exchange Act. The Company owns, directly or indirectly, all of the capital stock or other equity interests of each Subsidiary free and clear of any Liens, and all of the issued and outstanding shares of capital stock of each Subsidiary are validly issued and are fully paid, non-assessable and free of preemptive and similar rights to subscribe for or purchase securities. If the Company has no Subsidiaries, all other references to the Subsidiaries or any of them in the Transaction Documents shall be disregarded.

(b) Organization and Qualification. The Company and each of the Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any Subsidiary is in violation nor default of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents. Each of the Company and the Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, could not have or reasonably be expected to result in a Material Adverse Effect and no Proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

(c) Authorization; Enforcement. The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement and each of the other Transaction Documents to which it is a party and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of this Agreement and each of the other Transaction Documents by the Company and the consummation by it of the transactions contemplated hereby and thereby have been duly authorized by all necessary action on the part of the Company and no further action is required by the Company, the Board of Directors or the Company's stockholders in connection herewith or therewith other than in connection with the Required Approvals. This Agreement and each other Transaction Document to which the Company is a party has been (or upon delivery will have been) duly executed by the Company and, when delivered in accordance with the terms hereof and thereof, will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its 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, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

(d) No Conflicts. The execution, delivery and performance by the Company of this Agreement and the other Transaction Documents to which it is a party, the issuance and sale of the Securities and the consummation by it of the transactions contemplated hereby and thereby do not and will not (i) conflict with or violate any provision of the Company's or any Subsidiary's certificate or articles of incorporation, bylaws or other organizational or charter documents, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any Lien upon any of the properties or assets of the Company or any Subsidiary, or give to others any rights of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument (evidencing a Company or Subsidiary debt or otherwise) or other understanding to which the Company or any Subsidiary is a party or by which any property or asset of the Company or any Subsidiary is bound or affected, or (iii) subject to the Required Approvals, conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company or a Subsidiary is subject (including federal and state securities laws and regulations), or by which any property or asset of the Company or a Subsidiary is bound or affected; except in the case of each of clauses (ii) and (iii), such as could not have or reasonably be expected to result in a Material Adverse Effect.

(e) Filings, Consents and Approvals. The Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other Person in connection with the execution, delivery and performance by the Company of the Transaction Documents, other than: (i) the filing with the Commission of the Prospectus Supplement and (ii) such filings as are required to be made under applicable state securities laws (collectively, the "Required Approvals").

(f) Registration Statement. The Company has filed with the Commission the Registration Statement under the Securities Act, which became effective on September 14, 2017 (the "Effective Date"), for the registration under the Securities Act of the Securities. At the time of such filing, the Company met the requirements of Form S-3 under the Securities Act. The Registration Statement meets the requirements set forth in Rule 415(a)(1)(x) under the Securities Act and complies with said Rule and the Prospectus Supplement will meet the requirements set forth in Rule 424(b). The Company has advised the Representative of all further information (financial and other) with respect to the Company required to be set forth therein in the Registration Statement and Prospectus Supplement, other than Underwriter Information. Any reference in this Agreement to the Registration Statement, the Prospectus or the Prospectus Supplement shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 which were filed under the Exchange Act, on or before the date of this Agreement, or the issue date of the Prospectus or the Prospectus Supplement, as the case may be; and any reference in this Agreement to the terms "amend," "amendment" or "supplement" with respect to the Registration Statement, the Prospectus or the Prospectus Supplement shall be deemed to refer to and include the

filing of any document under the Exchange Act after the date of this Agreement, or the issue date of the Prospectus or the Prospectus Supplement, as the case may be, deemed to be incorporated therein by reference. All references in this Agreement to financial statements and schedules and other information which is "contained," "included," "described," "referenced," "set forth" or "stated" in the Registration Statement, the Prospectus or the Prospectus Supplement (and all other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information which is or is deemed to be incorporated by reference in the Registration Statement, the Prospectus or the Prospectus Supplement, as the case may be. No stop order suspending the effectiveness of the Registration Statement or the use of the Prospectus or the Prospectus Supplement has been issued, and no proceeding for any such purpose is pending or has been initiated or, to the Company's knowledge, is threatened by the Commission. For purposes of this Agreement, "free writing prospectus" has the meaning set forth in Rule 405 under the Securities Act. The Company will not, without the prior consent of the Representative, prepare, use or refer to, any free writing prospectus.

(g) Issuance of Securities. The Securities are duly authorized and, when issued and paid for in accordance with the applicable Transaction Documents, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Company has reserved from its duly authorized capital stock the maximum number of shares of Voting Common Stock issuable pursuant to this Agreement. The holder of the Securities will not be subject to personal liability by reason of being such holders. The Securities are not and will not be subject to the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company. All corporate action required to be taken for the authorization, issuance and sale of the Securities has been duly and validly taken. The Securities conform in all material respects to all statements with respect thereto contained in the Registration Statement.

(h) Capitalization. The capitalization of the Company is as set forth in the SEC Reports. The Company has not issued any capital stock since the filing date of its most recently filed periodic report under the Exchange Act, other than as set forth in Schedule 3.1(h), the exercise of employee stock options under the Company's stock option plans, the issuance of shares of Common Stock to employees pursuant to the Company's employee stock purchase plans and pursuant to the conversion and/or exercise of Common Stock Equivalents outstanding as of the date of the most recently filed periodic report under the Exchange Act. No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents. Except as a result of the purchase and sale of the Securities, there are no outstanding options, warrants, scrip rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire, any shares of Common Stock, or contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to issue additional shares of Common Stock or

Common Stock Equivalents. The issuance and sale of the Securities will not obligate the Company to issue shares of Common Stock or other securities to any Person (other than the Underwriters) and will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange or reset price under any of such securities. All of the outstanding shares of capital stock of the Company are duly authorized, validly issued, fully paid and nonassessable, have been issued in compliance with all federal and state securities laws, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. The authorized shares of the Company conform in all material respects to all statements relating thereto contained in the Registration Statement and the Prospectus. The offers and sales of the Company's securities were at all relevant times either registered under the Securities Act and the applicable state securities or Blue Sky laws or, based in part on the representations and warranties of the purchasers, exempt from such registration requirements. Except for the approval by the Trading Market of the Company's additional shares listing application filed in connection with this Agreement, no further approval or authorization of any stockholder, the Board of Directors or others is required for the issuance and sale of the Securities. There are no stockholders agreements, voting agreements or other similar agreements with respect to the Company's capital stock to which the Company is a party or, to the knowledge of the Company, between or among any of the Company's stockholders.

(i) SEC Reports; Financial Statements. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the two years preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, together with the Prospectus and the Prospectus Supplement, being collectively referred to herein as the "SEC Reports") on a timely basis (other than as set forth in Schedule 3.1(i)) or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension. As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Reports comply in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved ("GAAP"), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its consolidated Subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal,

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immaterial, year-end audit adjustments. The agreements and documents described in the Registration Statement, the Prospectus, the Prospectus Supplement and the SEC Reports conform to the descriptions thereof contained therein and there are no agreements or other documents required by the Securities Act and the rules and regulations thereunder to be described in the Registration Statement, the Prospectus, the Prospectus Supplement or the SEC Reports or to be filed with the Commission as exhibits to the Registration Statement, that have not been so described or filed. Each agreement or other instrument (however characterized or described) to which the Company is a party or by which it is or may be bound or affected and (i) that is referred to in the Registration Statement, the Prospectus, the Prospectus Supplement or the SEC Reports, or (ii) is material to the Company's business, has been duly authorized and validly executed by the Company, is in full force and effect in all material respects and is enforceable against the Company and, to the Company's knowledge, the other parties thereto, in accordance with its terms, except (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally, (y) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefore may be brought. None of such agreements or instruments has been assigned by the Company, and neither the Company nor, to the best of the Company's knowledge, any other party is in default thereunder and, to the best of the Company's knowledge, no event has occurred that, with the lapse of time or the giving of notice, or both, would constitute a default thereunder. To the best of the Company's knowledge, performance by the Company of the material provisions of such agreements or instruments will not result in a violation of any existing applicable law, rule, regulation, judgment, order or decree of any governmental agency or court, domestic or foreign, having jurisdiction over the Company or any of its assets or businesses, including, without limitation, those relating to environmental laws and regulations.

(j) Material Changes; Undisclosed Events, Liabilities or Developments. Since the date of the latest audited financial statements included within the SEC Reports, except as specifically disclosed in a subsequent SEC Report filed prior to the date hereof or as set forth in Schedule 3.1(j), (i) there has been no event, occurrence or development that has had or that could reasonably be expected to result in a Material Adverse Effect, (ii) the Company has not incurred any liabilities (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required to be reflected in the Company's financial statements pursuant to GAAP or disclosed in filings made with the Commission, (iii) the Company has not altered its method of accounting, (iv) the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock, (v) the Company has not issued any equity securities to any officer, director or Affiliate, except pursuant to existing Company stock option plans and (vi) no officer or director of the Company has resigned from any position with the Company. The Company does not have pending before the Commission

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any request for confidential treatment of information. Except for the issuance of the Securities contemplated by this Agreement, no event, liability, fact, circumstance, occurrence or development has occurred or exists or is reasonably expected to occur or exist with respect to the Company or its Subsidiaries or their respective businesses, prospects, properties, operations, assets or financial condition that would be required to be disclosed by the Company under applicable securities laws at the time this representation is made or deemed made that has not been publicly disclosed at least 1 Trading Day prior to the date that this representation is made. Unless otherwise disclosed in an SEC Report filed prior to the date hereof, the Company has not: (i) issued any securities or incurred any liability or obligation, direct or contingent, for borrowed money; or (ii) declared or paid any dividend or made any other distribution on or in respect to its capital stock.

(k) Litigation. Except as specifically disclosed in an SEC Report filed prior to the date hereof, there is no action, suit, inquiry, notice of violation, proceeding or investigation pending or, to the knowledge of the Company, threatened against or affecting the Company, any Subsidiary

or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an “Action”) which (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents or the Securities or (ii) could, if there were an unfavorable decision, have or reasonably be expected to result in a Material Adverse Effect. Neither the Company nor any Subsidiary, nor, to the Company’s knowledge, any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company or any Subsidiary under the Exchange Act or the Securities Act.

(l) Labor Relations. No labor dispute exists or, to the knowledge of the Company, is imminent with respect to any of the employees of the Company, which could reasonably be expected to result in a Material Adverse Effect. None of the Company’s or its Subsidiaries’ employees is a member of a union that relates to such employee’s relationship with the Company or such Subsidiary, and neither the Company nor any of its Subsidiaries is a party to a collective bargaining agreement, and the Company and its Subsidiaries believe that their relationships with their employees are good. To the knowledge of the Company, no executive officer of the Company or any Subsidiary, is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement or non-competition agreement, or any other contract or agreement or any restrictive covenant in favor of any third party, and the continued employment of each such executive officer does not subject the Company or any of its Subsidiaries to any liability with respect to any of the foregoing matters. The Company and its Subsidiaries are in compliance with all U.S. federal, state, local and foreign laws and regulations relating to

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employment and employment practices, terms and conditions of employment and wages and hours, except where the failure to be in compliance could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(m) Compliance. Neither the Company nor any Subsidiary: (i) is in default under or in violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company or any Subsidiary under), nor has the Company or any Subsidiary received notice of a claim that it is in default under or that it is in violation of, any indenture, loan or credit agreement or any other agreement or instrument to which it is a party or by which it or any of its properties is bound (whether or not such default or violation has been waived), (ii) is in violation of any judgment, decree or order of any court, arbitrator or other governmental authority or (iii) is or has been in violation of any statute, rule, ordinance or regulation of any governmental authority, including without limitation all foreign, federal, state and local laws relating to taxes, environmental protection, occupational health and safety, product quality and safety and employment and labor matters, except in each case as could not have or reasonably be expected to result in a Material Adverse Effect.

(n) Regulatory Permits. The Company and the Subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct their respective businesses as described in the SEC Reports, except where the failure to possess such permits could not reasonably be expected to result in a Material Adverse Effect (each, a “Material Permit”), and neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any Material Permit. The disclosures in the Registration Statement concerning the effects of Federal, State, local and all foreign regulation on the Company’s business as currently contemplated are correct in all material respects.

(o) Title to Assets. The Company and the Subsidiaries have good and marketable title in fee simple to, or have valid and marketable rights to lease or otherwise use, all real property and all personal property that is material to the business of the Company and the Subsidiaries, in each case free and clear of all Liens, except for (i) Liens 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 the Subsidiaries and (ii) Liens for the payment of federal, state or other taxes, for which appropriate reserves have been made in accordance with GAAP, and the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company and the Subsidiaries are held by them under valid, subsisting and enforceable leases with which the Company and the Subsidiaries are in compliance, except where failure to be in compliance could not reasonably be expected to have a Material Adverse Effect.

(p) Intellectual Property. The Company and the Subsidiaries have, or have rights to use, all patents, patent applications, trademarks (registered or unregistered), trademark applications, service marks, trade names, trade secrets, inventions, copyrights

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and registrations, licenses and other intellectual property rights and similar rights necessary or required for use in connection with their respective businesses as described in the SEC Reports and which the failure to do so could have a Material Adverse Effect (collectively, the “Intellectual Property Rights”). All Company owned Intellectual Property Rights have been assigned to the Company and recorded as required, or are subject to an obligation to assign rights to the Company; all required fees and maintenance fees for Intellectual Property Rights have been paid, except for certain annuity payments on patents due to expire in October 2017. None of, and neither the Company nor any Subsidiary has received a notice (written or otherwise) that any of, the Intellectual Property Rights has expired, terminated or been abandoned, or is expected to expire or terminate or be abandoned, within two (2) years from the date of this Agreement, except for Intellectual Property Rights that are within a year of the end of their term or the abandonment of which would not have a Material Adverse Effect. Neither the Company nor any Subsidiary has received, since the date of the latest audited financial statements included within the SEC Reports, a written notice of a claim or otherwise has any knowledge that the Company’s products or planned future products violate or infringe upon the intellectual property rights of any Person, except for any such violation or infringement that, if the subject of any unfavorable decision, ruling or finding, would not have or would not reasonably be expected to have a Material Adverse Effect. To the knowledge of the Company, all such Intellectual Property Rights are enforceable and there is no existing infringement by another Person of any of the Intellectual Property Rights. The Company and its Subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all of their intellectual properties, except where failure to do so could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(q) Insurance. The Company and the Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary in the businesses in which the Company and the Subsidiaries are engaged, including, but

not limited to, clinical trial insurance coverage and directors and officers insurance coverage. Neither the Company nor any 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 without a significant increase in cost.

(r) Transactions With Affiliates and Employees. Except as set forth in the SEC Reports, none of the officers or directors of the Company or any Subsidiary and, to the knowledge of the Company, none of the employees of the Company or any Subsidiary is presently a party to any transaction with the Company or any Subsidiary (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, providing for the borrowing of money from or lending of money to or otherwise requiring payments to or from, any officer, director or such employee or, to the knowledge of the Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee, stockholder, member or partner, in each case in excess of

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\$100,000 other than for (i) payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company and (iii) other employee benefits, including stock option agreements under any stock option plan of the Company.

(s) Sarbanes-Oxley; Internal Accounting Controls. The Company and the Subsidiaries are in compliance with any and all applicable requirements of the Sarbanes-Oxley Act of 2002 that are effective as of the date hereof, and any and all applicable rules and regulations promulgated by the Commission thereunder that are effective as of the date hereof and as of the Closing Date. The Company and the Subsidiaries maintain a system of internal accounting controls sufficient to provide reasonable assurance that: (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management's general or specific authorization, and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company and the Subsidiaries have established disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the Company and the Subsidiaries and designed such disclosure controls and procedures to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms. The Company's certifying officers have evaluated the effectiveness of the disclosure controls and procedures of the Company and the Subsidiaries as of the end of the period covered by the most recently filed periodic report under the Exchange Act (such date, the "Evaluation Date"). The Company presented in its most recently filed periodic report under the Exchange Act the conclusions of the certifying officers about the effectiveness of the disclosure controls and procedures based on their evaluations as of the Evaluation Date. Since the Evaluation Date, there have been no changes in the internal control over financial reporting (as such term is defined in the Exchange Act) of the Company and its Subsidiaries that have materially affected, or is reasonably likely to materially affect, the internal control over financial reporting of the Company and its Subsidiaries.

(t) Certain Fees. Except as set forth in the Prospectus Supplement, no brokerage or finder's fees or commissions are or will be payable by the Company, any Subsidiary or Affiliate of the Company to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. To the Company's knowledge, there are no other arrangements, agreements or understandings of the Company or, to the Company's knowledge, any of its stockholders that may affect the Underwriters' compensation, as determined by FINRA. Except as set forth in Schedule 3.1(t), the Company has not made any direct or indirect payments (in cash, securities or otherwise) to: (i) any person, as a finder's fee, consulting fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who raised or provided capital to the Company; (ii) any FINRA member; or (iii) any person or entity that has any direct or indirect affiliation or association with any FINRA

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member, within the twelve months prior to the Execution Date, other than the prior payment of \$15,000 to the Representative as provided hereunder in connection with the Offering. None of the net proceeds of the Offering will be paid by the Company to any participating FINRA member or its affiliates, except as specifically authorized herein.

(u) Investment Company. The Company is not, and is not an Affiliate of, and immediately after receipt of payment for the Securities will not be or be an Affiliate of, an "investment company" within the meaning of the Investment Company Act of 1940, as amended. The Company shall conduct its business in a manner so that it will not become an "investment company" subject to registration under the Investment Company Act of 1940, as amended.

(v) Registration Rights. Except as set forth in Schedule 3.1(v), no Person has any right to cause the Company or any Subsidiary to effect the registration under the Securities Act of any securities of the Company or any Subsidiary.

(w) Listing and Maintenance Requirements. The Voting Common Stock is registered pursuant to Section 12(b) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Voting Common Stock under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such registration. Except as set forth under Schedule 3.1(w), the Company has not, in the 12 months preceding the date hereof, received notice from any Trading Market on which the Voting Common Stock is or has been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Trading Market. The Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements. The Voting Common Stock is currently eligible for electronic transfer through the Depository Trust Company or another established clearing corporation and the Company is current in payment of the fees of the Depository Trust Company (or such other established clearing corporation) in connection with such electronic transfer.

(x) Application of Takeover Protections. The Company and the Board of Directors have taken all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar anti-takeover provision under the Company's certificate of incorporation (or similar charter documents) or the laws of its state of

incorporation that is or could become applicable as a result of the Underwriters and the Company fulfilling their obligations or exercising their rights under the Transaction Documents.

(y) Disclosure: 10b-5. The Registration Statement (and any further documents to be filed with the Commission) contains all exhibits and schedules as required by the Securities Act. Each of the Registration Statement and any post-effective amendment thereto, if any, at the time it became effective, complied in all material respects with the Securities Act and the Exchange Act and the applicable rules and

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regulations under the Securities Act and did not and, as amended or supplemented, if applicable, will not, contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Prospectus and the Prospectus Supplement, each as of its respective date, comply in all material respects with the Securities Act and the Exchange Act and the applicable rules and regulations. Each of the Prospectus and the Prospectus Supplement, as amended or supplemented, did not and will not contain as of the date thereof any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The SEC Reports, when they were filed with the Commission, conformed in all material respects to the requirements of the Exchange Act and the applicable rules and regulations, and none of such documents, when they were filed with the Commission, contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein (with respect to the SEC Reports incorporated by reference in the Prospectus or Prospectus Supplement), in light of the circumstances under which they were made not misleading; and any further documents so filed and incorporated by reference in the Prospectus or Prospectus Supplement, when such documents are filed with the Commission, will conform in all material respects to the requirements of the Exchange Act and the applicable rules and regulations, as applicable, 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 light of the circumstances under which they were made not misleading. No post-effective amendment to the Registration Statement reflecting any facts or events arising after the date thereof which represent, individually or in the aggregate, a fundamental change in the information set forth therein is required to be filed with the Commission. There are no documents required to be filed with the Commission in connection with the transaction contemplated hereby that (x) have not been filed as required pursuant to the Securities Act or (y) will not be filed within the requisite time period. There are no contracts or other documents required to be described in the Prospectus or Prospectus Supplement, or to be filed as exhibits or schedules to the Registration Statement, which have not been described or filed as required. The press releases disseminated by the Company during the twelve months preceding the date of this Agreement taken as a whole do not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made and when made, not misleading.

(z) No Integrated Offering. Neither the Company, nor any of its Affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Securities to be integrated with prior offerings by the Company for purposes of any applicable shareholder approval provisions of any Trading Market on which any of the securities of the Company are listed or designated.

(aa) Solvency. Based on the consolidated financial condition of the Company as of the Closing Date, after giving effect to the receipt by the Company of the proceeds from the sale of the Securities hereunder, (i) the fair saleable value of the Company's

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assets exceeds the amount that will be required to be paid on or in respect of the Company's existing debts and other liabilities (including known contingent liabilities) as they mature, (ii) the Company's assets do not constitute unreasonably small capital to carry on its business as now conducted and as proposed to be conducted including its capital needs taking into account the particular capital requirements of the business conducted by the Company, consolidated and projected capital requirements and capital availability thereof, and (iii) the current cash flow of the Company, together with the proceeds the Company would receive, were it to liquidate all of its assets, after taking into account all anticipated uses of the cash, would be sufficient to pay all amounts on or in respect of its liabilities when such amounts are required to be paid. The Company does not intend to incur debts beyond its ability to pay such debts as they mature (taking into account the timing and amounts of cash to be payable on or in respect of its debt). The Company has no knowledge of any facts or circumstances which lead it to believe that it will file for reorganization or liquidation under the bankruptcy or reorganization laws of any jurisdiction within one year from the Closing Date. The SEC Reports sets forth as of the date hereof all outstanding secured and unsecured Indebtedness of the Company or any Subsidiary, or for which the Company or any Subsidiary has commitments.

(bb) Tax Status. Except for matters that would not, individually or in the aggregate, have or reasonably be expected to result in a Material Adverse Effect, the Company and its Subsidiaries each (i) has made or filed all United States federal, state and local income and all foreign income and franchise tax returns, reports and declarations required by any jurisdiction to which it is subject, (ii) has paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations and (iii) has set aside on its books provision reasonably adequate for the payment of all material taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company or of any Subsidiary know of no basis for any such claim. The provisions for taxes payable, if any, shown on the financial statements filed with or as part of the Registration Statement are sufficient for all accrued and unpaid taxes, whether or not disputed, and for all periods to and including the dates of such consolidated financial statements. The term "taxes" mean all federal, state, local, foreign, and other net income, gross income, gross receipts, sales, use, ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes, fees, assessments, or charges of any kind whatsoever, together with any interest and any penalties, additions to tax, or additional amounts with respect thereto. The term "returns" means all returns, declarations, reports, statements, and other documents required to be filed in respect to taxes.

(cc) Foreign Corrupt Practices. Neither the Company nor any Subsidiary, nor to the knowledge of the Company or any Subsidiary, any agent or other person acting on behalf of the Company or any Subsidiary, has (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign

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or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company or any Subsidiary (or made by any person acting on its behalf of which the Company is aware) which is in violation of law, or (iv) violated in any material respect any provision of FCPA. The Company has taken reasonable steps to ensure that its accounting controls and procedures are sufficient to cause the Company to comply in all material respects with the FCPA.

(dd) Accountants. To the knowledge and belief of the Company, the Company Auditor (i) is an independent registered public accounting firm as required by the Exchange Act and (ii) shall express its opinion with respect to the financial statements to be included in the Company's Annual Report for the fiscal year ending December 31, 2017. The Company Auditor has not, during the periods covered by the financial statements included in the Prospectus, provided to the Company any non-audit services, as such term is used in Section 10A(g) of the Exchange Act.

(ee) FDA and Other Governmental Authorities. As to each product subject to the jurisdiction of the U.S. Food and Drug Administration ("FDA") under the Federal Food, Drug and Cosmetic Act, as amended, and the regulations thereunder ("FDCA") that is manufactured, packaged, labeled, tested, distributed, sold, and/or marketed by the Company or any of its Subsidiaries (each such product, a "Pharmaceutical Product"), such Pharmaceutical Product is being manufactured, packaged, labeled, tested, distributed, sold and/or marketed by the Company in compliance with all applicable requirements under FDCA and similar laws, rules and regulations relating to registration, investigational use, premarket clearance, licensure, or application approval, good manufacturing practices, good laboratory practices, good clinical practices, product listing, quotas, labeling, advertising, record keeping and filing of reports, except where the failure to be in compliance would not have a Material Adverse Effect. As to each of the Company's products not subject to the jurisdiction of the FDA, such product is being manufactured, packaged, labeled, tested, distributed, sold and/or marketed by the Company in compliance with all requirements under applicable laws, rules and regulations relating to registration, investigational use, premarket clearance, licensure, or application approval, good manufacturing practices, good laboratory practices, good clinical practices, product listing, quotas, labeling, advertising, record keeping and filing of reports, except where the failure to be in compliance would not have a Material Adverse Effect. There is no pending, completed or, to the Company's knowledge, threatened, action (including any lawsuit, arbitration, or legal or administrative or regulatory proceeding, charge, complaint, or investigation) against the Company or any of its Subsidiaries, and none of the Company or any of its Subsidiaries has received any notice, warning letter or other communication from the FDA or any other governmental entity, which (i) contests the premarket clearance, licensure, registration, or approval of, the uses of, the distribution of, the manufacturing or packaging of, the testing of, the sale of, or the labeling and promotion of any product of the Company, (ii) withdraws its approval of, requests the recall, suspension, or seizure of, or withdraws or orders the withdrawal of advertising or sales promotional materials relating to, any product of the

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Company, (iii) imposes a clinical hold on any clinical investigation by the Company or any of its Subsidiaries, (iv) enjoins production at any facility of the Company or any of its Subsidiaries, (v) enters or proposes to enter into a consent decree of permanent injunction with the Company or any of its Subsidiaries, or (vi) otherwise alleges any violation of any laws, rules or regulations by the Company or any of its Subsidiaries, and which, either individually or in the aggregate, would have a Material Adverse Effect. The properties, business and operations of the Company have been and are being conducted in all material respects in accordance with all applicable laws, rules and regulations of the FDA and other applicable governmental authorities. The Company has not been informed by the FDA or other governmental authorities that such government entity will prohibit the marketing, sale, license or use of any product proposed to be developed, produced or marketed by the Company nor has any government entity expressed any concern as to approving or clearing for marketing any product being developed or proposed to be developed by the Company.

(ff) Office of Foreign Assets Control. Neither the Company nor any Subsidiary nor, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company or any Subsidiary is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department.

(gg) U.S. Real Property Holding Corporation. The Company is not and has never been a U.S. real property holding corporation within the meaning of Section 897 of the Internal Revenue Code of 1986, as amended, and the Company shall so certify upon the Representative's request.

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

(ii) Money Laundering. The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance with applicable financial record-keeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, applicable money laundering statutes and applicable rules and regulations thereunder (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 Subsidiary with respect to the Money Laundering Laws is pending or, to the knowledge of the Company or any Subsidiary, threatened.

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(jj) D&O Questionnaires. To the Company's knowledge, all information contained in the questionnaires completed by each of the Company's directors and officers immediately prior to the Offering as well as in the Lock-Up Agreement provided to the Underwriters is true and correct in all material respects and the Company has not become aware of any information which would cause the information disclosed in such questionnaires become inaccurate and incorrect.

(kk) FINRA Affiliation. No officer, director or any beneficial owner of 5% or more of the Company's unregistered securities has any direct or indirect affiliation or association with any FINRA member (as determined in accordance with the rules and regulations of FINRA) that is participating in the Offering. The Company will advise the Representative and EGS if it learns that any officer, director or owner of 5% or more of the Company's outstanding shares of Common Stock or Common Stock Equivalents is or becomes an affiliate or associated person of a FINRA member firm.

(ll) Officers' Certificate. Any certificate signed by any duly authorized officer of the Company and delivered to the Representative or EGS shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby.

(mm) Board of Directors. The Board of Directors is comprised of the persons set forth under the heading of the Company's definitive proxy statement on Schedule 14A, filed on April 17, 2017 captioned "PROPOSAL 1—ELECTION OF DIRECTORS—Information Regarding the Board of Directors and Director Nominees." The qualifications of the persons serving as board members and the overall composition of the Board of Directors comply with the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder applicable to the Company and the rules of the Trading Market. At least one member of the Board of Directors qualifies as a "financial expert" as such term is defined under the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder and the rules of the Trading Market. In addition, at least a majority of the persons serving on the Board of Directors qualify as "independent" as defined under the rules of the Trading Market.

(nn) Change of Control Transaction. The Company is not currently contemplating any merger, consolidation or other similar transaction the result of which is that any "person" (as defined in Section 13(d)(3) of the Exchange Act), or group of persons, other than the Company, becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 of the Exchange Act) of 50% of total voting power of the voting stock of the Company. The Company is not aware of any bona fide third party tender offer of its securities.

ARTICLE IV. OTHER AGREEMENTS OF THE PARTIES

4.1 Amendments to Registration Statement. The Company has delivered, or will as promptly as practicable deliver, to the Underwriters complete conformed copies of the

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Registration Statement and of each consent and certificate of experts, as applicable, filed as a part thereof, and conformed copies of the Registration Statement (without exhibits), the Prospectus and the Prospectus Supplement, as amended or supplemented, in such quantities and at such places as an Underwriter reasonably requests. Neither the Company nor any of its directors and officers has distributed and none of them will distribute, prior to the Closing Date, any offering material in connection with the offering and sale of the Securities other than the Prospectus, the Prospectus Supplement, the Registration Statement, and copies of the documents incorporated by reference therein. The Company shall not file any such amendment or supplement to which the Representative shall reasonably object in writing.

4.2 Federal Securities Laws.

(a) Compliance. During the time when a Prospectus is required to be delivered under the Securities Act, the Company will use its best efforts to comply with all requirements imposed upon it by the Securities Act and the rules and regulations thereunder and the Exchange Act and the rules and regulations thereunder, as from time to time in force, so far as necessary to permit the continuance of sales of or dealings in the Securities in accordance with the provisions hereof and the Prospectus. If at any time when a Prospectus relating to the Securities is required to be delivered under the Securities Act, any event shall have occurred as a result of which, in the opinion of counsel for the Company or counsel for the Underwriters, the Prospectus, as then amended or supplemented, includes an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, or if it is necessary at any time to amend the Prospectus to comply with the Securities Act, the Company will notify the Underwriters promptly and prepare and file with the Commission, subject to Section 4.1 hereof, an appropriate amendment or supplement in accordance with Section 10 of the Securities Act.

(b) Filing of Final Prospectus Supplement. The Company will file the Prospectus Supplement (in form and substance satisfactory to the Representative) with the Commission pursuant to the requirements of Rule 424.

(c) Exchange Act Registration. For a period of three years from the Execution Date, the Company will use its best efforts to maintain the registration of the Voting Common Stock under the Exchange Act. The Company will not deregister the Voting Common Stock under the Exchange Act without the prior written consent of the Representative.

(d) Free Writing Prospectuses. The Company represents and agrees that it has not made and will not make any offer relating to the Securities that would constitute an issuer free writing prospectus, as defined in Rule 433 of the rules and regulations under the Securities Act, without the prior written consent of the Representative. Any such free writing prospectus consented to by the Representative is herein referred to as a "Permitted Free Writing Prospectus." The Company represents that it will treat each Permitted Free Writing Prospectus as an "issuer free writing prospectus" as defined in

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rule and regulations under the Securities Act, and has complied and will comply with the applicable requirements of Rule 433 of the Securities Act, including timely Commission filing where required, legending and record keeping.

4.3 Delivery to the Underwriters of Prospectuses. The Company will deliver to the Underwriters, without charge, from time to time during the period when the Prospectus is required to be delivered under the Securities Act or the Exchange Act such number of copies of each Prospectus as the Underwriters may reasonably request and, as soon as the Registration Statement or any amendment or supplement thereto becomes effective, deliver to you

two original executed Registration Statements, including exhibits, and all post-effective amendments thereto and copies of all exhibits filed therewith or incorporated therein by reference and all original executed consents of certified experts.

4.4 Effectiveness and Events Requiring Notice to the Underwriters. The Company will notify the Underwriters immediately and confirm the notice in writing: (i) of the effectiveness of the Registration Statement and any amendment thereto; (ii) of the issuance by the Commission of any stop order or of the initiation, or the threatening, of any proceeding for that purpose; (iii) of the issuance by any state securities commission of any proceedings for the suspension of the qualification of the Securities for offering or sale in any jurisdiction or of the initiation, or the threatening, of any proceeding for that purpose; (iv) of the mailing and delivery to the Commission for filing of any amendment or supplement to the Registration Statement or Prospectus; (v) of the receipt of any comments or request for any additional information from the Commission; and (vi) of the happening of any event during the period described in this Section 4.4 that, in the judgment of the Company, makes any statement of a material fact made in the Registration Statement or the Prospectus untrue or that requires the making of any changes in the Registration Statement or the Prospectus in order to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Commission or any state securities commission shall enter a stop order or suspend such qualification at any time, the Company will make every reasonable effort to obtain promptly the lifting of such order.

4.5 Review of Financial Statements. For a period of three (3) years from the Execution Date, the Company, at its expense, shall retain the Company Auditor (or such other firm that is nationally recognized in the U.S. of independent PCAOB registered public accountants and reasonably acceptable to the Representative) and cause its regularly engaged independent registered public accountants to review (but not audit) the Company's financial statements for each of the first three fiscal quarters prior to the announcement of quarterly financial information.

4.6 Reports to the Underwriters; Expenses of the Offering.

(a) Periodic Reports, etc. For a period of two years from the Execution Date, the Company will furnish to the Underwriters copies of such financial statements and other periodic and special reports as the Company from time to time furnishes generally to holders of any class of its securities and also promptly furnish to the Underwriters: (i) a copy of each periodic report the Company shall be required to file with the Commission;

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(ii) a copy of every press release and every news item and article with respect to the Company or its affairs which was released by the Company; (iii) a copy of each Form 8-K prepared and filed by the Company; (iv) a copy of each registration statement filed by the Company under the Securities Act; (v) such additional documents and information with respect to the Company and the affairs of any future Subsidiaries of the Company as the Representative may from time to time reasonably request; provided that the Underwriters shall each sign, if requested by the Company, a Regulation FD compliant confidentiality agreement which is reasonably acceptable to the Representative in connection with such Underwriter's receipt of such information. Documents filed with the Commission pursuant to its EDGAR system shall be deemed to have been delivered to the Underwriters pursuant to this Section.

(b) Transfer Sheets. For a period of two (2) years from the Execution Date, the Company shall retain the Transfer Agent or a transfer and registrar agent acceptable to the Representative and will furnish to the Underwriters at the Company's sole cost and expense such transfer sheets of the Company's securities as an Underwriter may reasonably request, including the daily and monthly consolidated transfer sheets of the Transfer Agent and the DTC.

(c) Trading Reports. During such time as the Closing Shares and Option Shares are listed on the Trading Market, the Company shall provide to the Underwriters, at the Company's expense, such reports published by the Trading Market relating to price and trading of such shares, as the Underwriters shall reasonably request.

(d) General Expenses Related to the Offering. The Company hereby agrees to pay on each of the Closing Date and each Option Closing Date, if any, to the extent not paid prior to the Closing Date, all expenses incident to the performance of the obligations of the Company under this Agreement, including, but not limited to: (a) all filing fees and communication expenses relating to the registration of the Securities to be sold in the Offering (including the Option Shares) with the Commission; (b) all FINRA Public Offering Filing System fees associated with the review of the Offering by FINRA; (c) all fees and expenses relating to the listing of such Closing Shares and Option Shares on the Trading Market and such other stock exchanges as the Company and the Representative together determine; (d) the costs of all mailing and printing of the Registration Statements, Preliminary Prospectuses, Prospectuses and all amendments, supplements and exhibits thereto as the Representative may reasonably deem necessary; (e) the costs and expenses of the Company's public relations firm; (f) the costs of preparing, printing and delivering the Securities; (g) fees and expenses of the Transfer Agent for the Securities (including, without limitation, any fees required for same day processing of any instruction letter delivered by the Company); (h) stock transfer and/or stamp taxes, if any, payable upon the transfer of Securities from the Company to the Underwriters; (i) the fees and expenses of the Company's accountants; and (j) the fees and expenses of the Company's legal counsel and other agents and representatives. In addition to the aforementioned expenses of the Company, the Company will also reimburse the Representative for all travel and other out-of-pocket expenses, including the reasonable fees, costs and disbursements of its legal counsel, which shall be limited to, in the

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aggregate \$75,000 (inclusive of \$15,000 previously paid by the Company as an advance, which such advance shall be returned to the Company to the extent that it is not offset by actual expenses in the Offering) by deduction from the net proceeds of the Offering payable to the Company on the Closing Date, or each Option Closing Date, if any. All reasonable background checks for the Company's senior management run by the Representative shall be reimbursed by the Company by deduction from the net proceeds of the Offering payable to the Company on the Closing Date, separate and apart from the aforementioned expense reimbursements.

4.7 Application of Net Proceeds. The Company will apply the net proceeds from the Offering received by it in a manner consistent with the application described under the caption "Use Of Proceeds" in the Prospectus.

4.8 Delivery of Earnings Statements to Security Holders. The Company will make generally available to its security holders as soon as practicable, but not later than the first day of the fifteenth full calendar month following the Execution Date, an earnings statement (which need not be certified by independent public or independent certified public accountants unless required by the Securities Act or the Rules and Regulations under the Securities Act, but which shall satisfy the provisions of Rule 158(a) under Section 11(a) of the Securities Act) covering a period of at least twelve consecutive months beginning after the Execution Date, which requirement will be deemed to be satisfied if the Company timely files complete and accurate information on Forms 10-K, 10-Q and 8-K under the Exchange Act and otherwise complies with Rule 158 under the Securities Act or any successor rule thereto.

4.9 Stabilization. Neither the Company, nor, to its knowledge, any of its employees, directors or shareholders (without the consent of the Representative) has taken or will take, directly or indirectly, any action designed to or that has constituted or that might reasonably be expected to cause or result in, under the Exchange Act, or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities.

4.10 Internal Controls. The Company will maintain a system of internal accounting controls sufficient to provide reasonable assurances that: (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary in order to permit preparation of financial statements in accordance with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

4.11 Accountants. The Company shall continue to retain a nationally recognized independent certified public accounting firm for a period of at least three years after the Execution Date. The Underwriters acknowledge that the Company Auditor is acceptable to the Underwriters.

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4.12 FINRA. The Company shall advise the Underwriters (who shall make an appropriate filing with FINRA) if it is aware that any 5% or greater shareholder of the Company becomes an affiliate or associated person of an Underwriter.

4.13 No Fiduciary Duties. The Company acknowledges and agrees that the Underwriters' responsibility to the Company is solely contractual and commercial in nature, based on arms-length negotiations and that neither the Underwriters nor their affiliates or any selected dealer shall be deemed to be acting in a fiduciary capacity, or otherwise owes any fiduciary duty to the Company or any of its affiliates in connection with the Offering and the other transactions contemplated by this Agreement. Notwithstanding anything in this Agreement to the contrary, the Company acknowledges that the Underwriters may have financial interests in the success of the Offering that are not limited to the difference between the price to the public and the purchase price paid to the Company by the Underwriters for the shares and the Underwriters have no obligation to disclose, or account to the Company for, any of such additional financial interests. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against the Underwriters with respect to any breach or alleged breach of fiduciary duty.

4.14 Board Composition and Board Designations. The Company shall ensure that: (i) the qualifications of the persons serving as board members and the overall composition of the Board of Directors comply with the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder and with the listing requirements of the Trading Market and (ii) if applicable, at least one member of the Board of Directors qualifies as a "financial expert" as such term is defined under the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder.

4.15 Securities Laws Disclosure; Publicity. At the request of the Representative, by 9:00 a.m. (New York City time) on the date hereof, the Company shall issue a press release disclosing the material terms of the Offering. The Company and the Representative shall consult with each other in issuing any other press releases with respect to the Offering, and neither the Company nor any Underwriter shall issue any such press release nor otherwise make any such public statement without the prior consent of the Company, with respect to any press release of such Underwriter, or without the prior consent of such Underwriter, with respect to any press release of the Company, which consent shall not unreasonably be withheld or delayed, except if such disclosure is required by law, in which case the disclosing party shall promptly provide the other party with prior notice of such public statement or communication. The Company will not issue press releases or engage in any other publicity, without the Representative's prior written consent, for a period ending at 5:00 p.m. (New York City time) on the first business day following the 40th day following the Closing Date, other than normal and customary releases issued in the ordinary course of the Company's business.

4.16 Shareholder Rights Plan. No claim will be made or enforced by the Company or, with the consent of the Company, any other Person, that any Underwriter of the Securities is an "Acquiring Person" under any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or similar anti-takeover plan or arrangement in effect or hereafter adopted by the Company, or that any Underwriter of Securities

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could be deemed to trigger the provisions of any such plan or arrangement, by virtue of receiving Securities.

4.17 Reservation of Voting Common Stock. As of the date hereof, the Company has reserved and the Company shall continue to reserve and keep available at all times, free of preemptive rights, a sufficient number of shares of Voting Common Stock for the purpose of enabling the Company to issue Option Shares pursuant to the Over-Allotment Option.

4.18 Listing of Voting Common Stock. The Company hereby agrees to use best efforts to maintain the listing or quotation of the Voting Common Stock on the Trading Market on which it is currently listed, and concurrently with the Closing, the Company shall apply to list or quote all of the Closing Shares and Option Shares on such Trading Market and promptly secure the listing of all of the Closing Shares and Option Shares on such Trading Market. The Company further agrees, if the Company applies to have the Voting Common Stock traded on any other Trading Market, it will then include in such application all of the Closing Shares and Option Shares, and will take such other action as is necessary to cause all of the Closing Shares and Option Shares to be listed or quoted on such other Trading Market as promptly as possible. The Company will then take all action reasonably necessary to continue the listing and trading of its Voting Common Stock on a Trading Market and will comply in all respects with the Company's reporting, filing and other obligations under the bylaws or rules of the Trading Market. The Company agrees to maintain the eligibility of the Voting Common Stock for electronic transfer through the Depository Trust Company or another established clearing corporation, including, without limitation, by timely payment of fees to the Depository Trust Company or such other established clearing corporation in connection with such electronic transfer.

4.19 Subsequent Equity Sales.

(a) From the date hereof until one hundred twenty (120) days hereafter, neither the Company nor any Subsidiary shall issue, enter into any agreement to issue or announce the issuance or proposed issuance of any shares of Common Stock or Common Stock Equivalents.

(b) From the date hereof until one hundred twenty (120) days hereafter, the Company shall be prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its Subsidiaries of Common Stock or Common Stock Equivalents (or a combination of units thereof) involving a Variable Rate Transaction. “Variable Rate Transaction” means a transaction in which the Company (i) issues or sells any debt or equity securities that are convertible into, exchangeable or exercisable for, or include the right to receive, additional shares of Common Stock either (A) at a conversion price, exercise price or exchange rate or other price that is based upon, and/or varies with, the trading prices of or quotations for the shares of Common Stock at any time after the initial issuance of such debt or equity securities or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security or upon the occurrence of specified or contingent events directly or indirectly related to the business of the Company or the market for the Common Stock or (ii) enters into, or effects a transaction under, any

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agreement, including, but not limited to, an equity line of credit, whereby the Company may issue securities at a future determined price. Any Underwriter shall be entitled to obtain injunctive relief against the Company to preclude any such issuance, which remedy shall be in addition to any right to collect damages.

(c) Notwithstanding the foregoing, this Section 4.19 shall not apply in respect of an Exempt Issuance, except that no Variable Rate Transaction shall be an Exempt Issuance.

4.20 Fee Tail. If within twelve months of the Closing, the Company completes any financing of equity, equity-linked or debt or other capital raising activity of the Company (other than the exercise by any person or entity of any options, warrants or other convertible securities outstanding on the date hereof) with any investors contacted by Maxim Group LLC in connection with this Offering, then the Company will pay Maxim Group LLC upon the closing of such financing fifty percent (50%) of the compensation set forth in Section 2.1 of this Agreement.

4.21 Capital Changes. Until one hundred twenty (120) days hereafter, the Company shall not undertake a reverse or forward stock split or reclassification of the Voting Common Stock without the prior written consent of the Representative except as required for the continued listing of the Voting Common Stock on the Trading Market.

4.22 Financial Public Relations Firm. As of the Execution Date, the Company shall have retained a financial public relations firm reasonably acceptable to the Representative and the Company, which shall initially be KCSA Strategic Communications, which firm will be experienced in assisting issuers in public offerings of securities and in their relations with their security holders, and shall retain such firm or another firm reasonably acceptable to the Representative for a period of not less than two (2) years after the Execution Date.

4.23 Research Independence. The Company acknowledges that each Underwriter’s research analysts and research departments, if any, are required to be independent from their respective investment banking divisions and are subject to certain regulations and internal policies, and that such Underwriter’s research analysts may hold 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 its investment bankers. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against such Underwriter 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 Underwriter’s investment banking divisions. The Company acknowledges that the Representative 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 position in debt or equity securities of the Company.

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ARTICLE V. DEFAULT BY UNDERWRITERS

5.1 If on the Closing Date or any Option Closing Date, if any, any Underwriter shall fail to purchase and pay for the portion of the Closing Shares or Option Shares, as the case may be, which such Underwriter has agreed to purchase and pay for on such date (otherwise than by reason of any default on the part of the Company), the Representative, or if the Representative is the defaulting Underwriter, the non-defaulting Underwriters, shall use their reasonable efforts to procure within 36 hours thereafter one or more of the other Underwriters, or any others, to purchase from the Company such amounts as may be agreed upon and upon the terms set forth herein, the Closing Shares or Option Shares, as the case may be, which the defaulting Underwriter or Underwriters failed to purchase. If during such 36 hours the Representative shall not have procured such other Underwriters, or any others, to purchase the Closing Shares or Option Shares, as the case may be, agreed to be purchased by the defaulting Underwriter or Underwriters, then (a) if the aggregate number of Closing Shares or Option Shares, as the case may be, with respect to which such default shall occur does not exceed 10% of the Closing Shares or Option Shares, as the case may be, covered hereby, the other Underwriters shall be obligated, severally, in proportion to the respective numbers of Closing Shares or Option Shares, as the case may be, which they are obligated to purchase hereunder, to purchase the Closing Shares or Option Shares, as the case may be, which such defaulting Underwriter or Underwriters failed to purchase, or (b) if the aggregate number of Closing Shares or Option Shares, as the case may be, with respect to which such default shall occur exceeds 10% of the Closing Shares or Option Shares, as the case may be, covered hereby, the Company or the Representative will have the right to terminate this Agreement without liability on the part of the non-defaulting Underwriters or of the Company except to the extent provided in Article VI hereof. In the event of a default by any Underwriter or Underwriters, as set forth in this Article V, the applicable Closing Date may be postponed for such period, not exceeding seven days, as the Representative, or if the Representative is the defaulting Underwriter, the non-defaulting Underwriters, may determine in order that the required changes in the Prospectus or in any other documents or arrangements may be effected. The term “Underwriter” includes any person substituted for a defaulting Underwriter. Any action taken under this Section shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

ARTICLE VI.
INDEMNIFICATION

6.1 Indemnification of the Underwriters. Subject to the conditions set forth below, the Company agrees to indemnify and hold harmless the Underwriters, and each dealer selected by each Underwriter that participates in the offer and sale of the Securities (each a "Selected Dealer") and each of their respective directors, officers and employees and each Person, if any, who controls such Underwriter or any Selected Dealer ("Controlling Person") within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, against any and all loss, liability, claim, damage and expense whatsoever (including but not limited to any and all legal or other expenses reasonably incurred in investigating, preparing or defending against any

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litigation, commenced or threatened, or any claim whatsoever, whether arising out of any action between such Underwriter and the Company or between such Underwriter and any third party or otherwise) to which they or any of them may become subject under the Securities Act, the Exchange Act or any other statute or at common law or otherwise or under the laws of foreign countries, arising out of or based upon any untrue statement or alleged untrue statement of a material fact contained in (i) any Preliminary Prospectus, if any, the Registration Statement or the Prospectus (as from time to time each may be amended and supplemented); (ii) any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the offering of the Securities, including any "road show" or investor presentations made to investors by the Company (whether in person or electronically); or (iii) any application or other document or written communication (in this Article VI, collectively called "application") executed by the Company or based upon written information furnished by the Company in any jurisdiction in order to qualify the Securities under the securities laws thereof or filed with the Commission, any state securities commission or agency, Trading Market or any securities exchange; or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, unless such statement or omission was made in reliance upon and in conformity with written information furnished to the Company with respect to the applicable Underwriter by or on behalf of such Underwriter expressly for use in any Preliminary Prospectus, if any, the Registration Statement or Prospectus, or any amendment or supplement thereto, or in any application, as the case may be (the "Underwriter Information"). With respect to any untrue statement or omission or alleged untrue statement or omission made in the Preliminary Prospectus, if any, the indemnity agreement contained in this Section 6.1 shall not inure to the benefit of an Underwriter to the extent that any loss, liability, claim, damage or expense of such Underwriter results from the fact that a copy of the Prospectus was not given or sent to the Person asserting any such loss, liability, claim or damage at or prior to the written confirmation of sale of the Securities to such Person as required by the Securities Act and the rules and regulations thereunder, and if the untrue statement or omission has been corrected in the Prospectus, unless such failure to deliver the Prospectus was a result of non-compliance by the Company with its obligations under this Agreement. The Company agrees promptly to notify each Underwriter of the commencement of any litigation or proceedings against the Company or any of its officers, directors or Controlling Persons in connection with the issue and sale of the Securities or in connection with the Registration Statement or Prospectus.

6.2 Procedure. If any action is brought against an Underwriter, a Selected Dealer or a Controlling Person in respect of which indemnity may be sought against the Company pursuant to Section 6.1, such Underwriter, such Selected Dealer or Controlling Person, as the case may be, shall promptly notify the Company in writing of the institution of such action and the Company shall assume the defense of such action, including the employment and fees of counsel (subject to the reasonable approval of such Underwriter or such Selected Dealer, as the case may be) and payment of actual expenses. Such Underwriter, such Selected Dealer or Controlling Person shall have the right to employ its or their own counsel in any such case, but the fees and expenses of such counsel shall be at the expense of such Underwriter, such Selected Dealer or Controlling Person unless (i) the employment of such counsel at the expense of the Company shall have been authorized in writing by the Company in connection with the defense of such action, or (ii) the

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Company shall not have employed counsel to have charge of the defense of such action, or (iii) such indemnified party or parties shall have reasonably concluded that there may be defenses available to it or them which are different from or additional to those available to the Company (in which case the Company shall not have the right to direct the defense of such action on behalf of the indemnified party or parties), in any of which events the reasonable fees and expenses of not more than one additional firm of attorneys selected by such Underwriter (in addition to local counsel), Selected Dealer and/or Controlling Person shall be borne by the Company. Any such counsel shall, to the extent consistent with its professional responsibilities, cooperate with the Company and any counsel designated by the Company. The Company will have the exclusive right to settle the claim or proceeding provided that the Company will not settle any such claim, action or proceeding without the prior written consent of the indemnified person, which will not be unreasonably withheld or delayed, unless such settlement includes an unconditional release of each indemnified person from all liability arising out of such claim, action or proceeding. Notwithstanding anything to the contrary contained herein, if any Underwriter, Selected Dealer or Controlling Person shall assume the defense of such action as provided above, the Company shall have the right to approve the terms of any settlement of such action which approval shall not be unreasonably withheld.

6.3 Indemnification of the Company. Each Underwriter severally and not jointly agrees to indemnify and hold harmless the Company, its directors, officers and employees and agents who control the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any and all loss, liability, claim, damage and expense described in the foregoing indemnity from the Company to such Underwriter, as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions made in any Preliminary Prospectus, if any, the Registration Statement or Prospectus or any amendment or supplement thereto or in any application, in reliance upon, and in strict conformity with, written information furnished to the Company with respect to such Underwriter by or on behalf of such Underwriter expressly for use in such Preliminary Prospectus, if any, the Registration Statement or Prospectus or any amendment or supplement thereto or in any such application. In case any action shall be brought against the Company or any other Person so indemnified based on any Preliminary Prospectus, if any, the Registration Statement or Prospectus or any amendment or supplement thereto or any application, and in respect of which indemnity may be sought against such Underwriter, such Underwriter shall have the rights and duties given to the Company, and the Company and each other Person so indemnified shall have the rights and duties given to such Underwriter by the provisions of this Article VI. Notwithstanding the provisions of this Section 6.3, no Underwriter shall be required to indemnify the Company for any amount in excess of the underwriting discounts and commissions applicable to the Securities purchased by such Underwriter. The Underwriters' obligations in this Section 6.3 to indemnify the Company are several in proportion to their respective underwriting obligations and not joint.

6.4 Contribution.

(a) Contribution Rights. In order to provide for just and equitable contribution under the Securities Act in any case in which (i) any Person entitled to indemnification under this Article VI makes a claim for indemnification pursuant hereto

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but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case notwithstanding the fact that this Article VI provides for indemnification in such case, or (ii) contribution under the Securities Act, the Exchange Act or otherwise may be required on the part of any such Person in circumstances for which indemnification is provided under this Article VI, then, and in each such case, the Company and each Underwriter, severally and not jointly, shall contribute to the aggregate losses, liabilities, claims, damages and expenses of the nature contemplated by said indemnity agreement incurred by the Company and such Underwriter, as incurred, in such proportions that such Underwriter is responsible for that portion represented by the percentage that the underwriting discount appearing on the cover page of the Prospectus bears to the initial offering price appearing thereon and the Company is responsible for the balance; provided, that, no Person guilty of a fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation. For purposes of this Section, each director, officer and employee of such Underwriter or the Company, as applicable, and each Person, if any, who controls such Underwriter or the Company, as applicable, within the meaning of Section 15 of the Securities Act shall have the same rights to contribution as such Underwriter or the Company, as applicable. Notwithstanding the provisions of this Section 6.4, no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions applicable to the Securities purchased by such Underwriter. The Underwriters' obligations in this Section 6.4 to contribute are several in proportion to their respective underwriting obligations and not joint.

(b) Contribution Procedure. Within fifteen days after receipt by any party to this Agreement (or its representative) of notice of the commencement of any action, suit or proceeding, such party will, if a claim for contribution in respect thereof is to be made against another party ("contributing party"), notify the contributing party of the commencement thereof, but the failure to so notify the contributing party will not relieve it from any liability which it may have to any other party other than for contribution hereunder. In case any such action, suit or proceeding is brought against any party, and such party notifies a contributing party or its representative of the commencement thereof within the aforesaid fifteen days, the contributing party will be entitled to participate therein with the notifying party and any other contributing party similarly notified. Any such contributing party shall not be liable to any party seeking contribution on account of any settlement of any claim, action or proceeding affected by such party seeking contribution without the written consent of such contributing party. The contribution provisions contained in this Section 6.4 are intended to supersede, to the extent permitted by law, any right to contribution under the Securities Act, the Exchange Act or otherwise available.

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ARTICLE VII. MISCELLANEOUS

7.1 Termination.

(a) Termination Right. The Representative shall have the right to terminate this Agreement at any time prior to any Closing Date, (i) if any domestic or international event or act or occurrence has materially disrupted, or in its opinion will in the immediate future materially disrupt, general securities markets in the United States; or (ii) if trading on any Trading Market shall have been suspended or materially limited, or minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required by FINRA or by order of the Commission or any other government authority having jurisdiction, or (iii) if the United States shall have become involved in a new war or an increase in major hostilities, or (iv) if a banking moratorium has been declared by a New York State or federal authority, or (v) if a moratorium on foreign exchange trading has been declared which materially adversely impacts the United States securities markets, or (vi) if the Company shall have sustained a material loss by fire, flood, accident, hurricane, earthquake, theft, sabotage or other calamity or malicious act which, whether or not such loss shall have been insured, will, in the Representative's opinion, make it inadvisable to proceed with the delivery of the Securities, or (vii) if the Company is in material breach of any of its representations, warranties or covenants hereunder, or (viii) if the Representative shall have become aware after the date hereof of such a material adverse change in the conditions or prospects of the Company, or such adverse material change in general market conditions as in the Representative's reasonable judgment would make it impracticable to proceed with the offering, sale and/or delivery of the Securities or to enforce contracts made by the Underwriters for the sale of the Securities.

(b) Expenses. In the event this Agreement shall be terminated pursuant to Section 7.1(a), within the time specified herein or any extensions thereof pursuant to the terms herein, the Company shall be obligated to pay to the Representative its actual and accountable out of pocket expenses related to the transactions contemplated herein then due and payable, including, but not limited to, the fees and disbursements of EGS; provided, however, that such expenses shall not exceed \$15,000 in the aggregate (provided further, however, that such expense cap in no way limits or impairs the indemnification and contribution provisions of this Agreement).

(c) Indemnification. Notwithstanding any contrary provision contained in this Agreement, any election hereunder or any termination of this Agreement, and whether or not this Agreement is otherwise carried out, the provisions of Article VI shall not be in any way effected by such election or termination or failure to carry out the terms of this Agreement or any part hereof.

7.2 Entire Agreement. The Transaction Documents, together with the exhibits and schedules thereto, the Prospectus and the Prospectus Supplement, contain the entire understanding of the parties with respect to the subject matter hereof and thereof and supersede all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules. Notwithstanding anything herein to the contrary, the Engagement Agreement, dated August 17, 2017 ("Engagement Agreement"), by and between the Company and Maxim Group, LLC, shall continue to be effective and the terms therein shall continue to survive and be enforceable by the

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Representative in accordance with its terms, provided that, in the event of a conflict between the terms of the Engagement Agreement and this Agreement, the terms of this Agreement shall prevail.

7.3 Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of: (a) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or e-mail attachment at the email address set forth on the signature pages attached hereto at or prior to 5:30 p.m. (New York City time) on a Trading Day, (b) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or e-mail attachment at the e-mail address as set forth on the signature pages attached hereto on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (c) the second (2nd) Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service or (d) upon actual receipt by the party to whom such notice is required to be given. The address for such notices and communications shall be as set forth on the signature pages attached hereto.

7.4 Amendments; Waivers. No provision of this Agreement may be waived, modified, supplemented or amended except in a written instrument signed, in the case of an amendment, by the Company and the Representative. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of any party to exercise any right hereunder in any manner impair the exercise of any such right.

7.5 Headings. The headings herein are for convenience only, do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof.

7.6 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns.

7.7 Governing Law. All questions concerning the construction, validity, enforcement and interpretation of the Transaction Documents shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Agreement and any other Transaction Documents (whether brought against a party hereto or its respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of any of the Transaction Documents), and hereby irrevocably waives, and agrees not to assert in any action, suit or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby

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irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action or proceeding to enforce any provisions of the Transaction Documents, then, in addition to the obligations of the Company under Article VI, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for its reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

7.8 Survival. The representations and warranties contained herein shall survive the Closing and the Option Closing, if any, and the delivery of the Securities.

7.9 Execution. This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to each other party, it being understood that the parties need not sign the same counterpart. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature were an original thereof.

7.10 Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their commercially reasonable efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable.

7.11 Remedies. In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, the Underwriters and the Company will be entitled to specific performance under the Transaction Documents. The parties agree that monetary damages may not be adequate compensation for any loss incurred by reason of any breach of obligations contained in the Transaction Documents and hereby agree to waive and not to assert in any action for specific performance of any such obligation the defense that a remedy at law would be adequate.

7.12 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.

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7.13 Construction. The parties agree that each of them and/or their respective counsel have reviewed and had an opportunity to revise the Transaction Documents and, therefore, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of the Transaction Documents or any amendments thereto. In addition, each and every reference to share prices and shares of Common Stock in any Transaction Document shall be subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of the Common Stock that occur after the date of this Agreement.

7.14 **WAIVER OF JURY TRIAL**. IN ANY ACTION, SUIT, OR PROCEEDING IN ANY JURISDICTION BROUGHT BY ANY PARTY AGAINST ANY OTHER PARTY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY, THE PARTIES EACH KNOWINGLY AND INTENTIONALLY, TO THE GREATEST EXTENT PERMITTED BY APPLICABLE LAW, HEREBY ABSOLUTELY, UNCONDITIONALLY, IRREVOCABLY AND EXPRESSLY WAIVE FOREVER ANY RIGHT TO TRIAL BY JURY.

(Signature Pages Follow)

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If the foregoing correctly sets forth the understanding between the Underwriters and the Company, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement among the Company and the several Underwriters in accordance with its terms.

Very truly yours,

JAGUAR HEALTH, INC.

By: /s/ Karen S. Wright

Name: Karen S. Wright

Title: Chief Financial Officer

Address for Notice:

201 Mission Street, Suite 2375
San Francisco, California 94105

Copy to: Reed Smith LLP

Accepted on the date first above written.

MAXIM GROUP LLC

As the Representative of the several
Underwriters listed on Schedule I

By: /s/ Clifford A. Teller

Name: Clifford A. Teller

Title: Executive Managing Director, Investment Banking

Address for Notice:

405 Lexington Avenue, 2nd Floor
New York, New York 10174

Copy to: Ellenoff Grossman & Schole LLP

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SCHEDULE I

SCHEDULE OF UNDERWRITERS

<u>Underwriters</u>	<u>Closing Shares</u>	<u>Closing Purchase Price</u>
Maxim Group LLC	17,531,250	\$ 3,260,812.50
WestPark Capital, Inc.	3,718,750	\$ 691,687.50
Total	21,250,000	\$ 3,952,500.00

1. Ahmed Farag (directed investment)



Jaguar Health Prices \$4.25 Million Public Offering of Common Stock

San Francisco, CA (September 29, 2017): Jaguar Health, Inc. (NASDAQ: JAGX) (“Jaguar” or the “Company”), a natural-products pharmaceuticals company focused on developing and commercializing novel, sustainably derived gastrointestinal products for both human prescription use and animals on a global basis, today announced the pricing of an underwritten public offering of 21,250,000 shares of voting common stock with a public offering price of \$0.20 per share. The Company expects to receive gross proceeds of approximately \$4.25 million, before deducting underwriting discounts and commissions and other estimated offering expenses.

The offering is expected to close on or about October 3, 2017, subject to customary closing conditions. Jaguar has granted the representative of the underwriters a 45-day option to purchase up to an additional 3,187,500 of the shares of its voting common stock.

Maxim Group LLC is acting as the sole book-running manager for the offering. WestPark Capital, Inc. is acting as co-manager.

The Company intends to use the net proceeds from the offering for commercialization of Mytesi®—an FDA-approved human prescription drug product of Jaguar’s wholly-owned subsidiary, Napo Pharmaceuticals, Inc., as well as for general corporate purposes and working capital.

The shares of common stock referred to above are being offered under the Company’s shelf registration statement on Form S-3 (No. 333-220236), including a base prospectus, previously filed with and declared effective by the U.S. Securities and Exchange Commission (SEC). The shares are being offered by means of a prospectus supplement and accompanying prospectus, forming part of the effective registration statement. A preliminary prospectus supplement and accompanying prospectus related to the offering, along with a free writing prospectus, have been filed with the SEC and are available on the website of the SEC at <http://www.sec.gov>. Electronic copies of the preliminary prospectus supplement, accompanying prospectus and free writing prospectus also may be obtained from Maxim Group LLC, 405 Lexington Avenue, 2nd Floor, New York, NY 10174, at (800) 724-0761.

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 jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of any such jurisdiction.

About Mytesi®

Mytesi® (crofelemer) is an antidiarrheal indicated for the symptomatic relief of noninfectious diarrhea in adult patients with HIV/AIDS on antiretroviral therapy (ART). Mytesi® is not indicated for the treatment of infectious diarrhea. Rule out infectious etiologies of diarrhea before starting Mytesi®. If infectious etiologies are not considered, there is a risk that patients with infectious etiologies will not receive the appropriate therapy and their disease may worsen. In clinical studies, the most common adverse reactions occurring at a rate greater than placebo were upper respiratory tract infection (5.7%), bronchitis (3.9%), cough (3.5%), flatulence (3.1%), and increased bilirubin (3.1%).

More information and complete Prescribing Information are available at Mytesi.com. Crofelemer, the active ingredient in Mytesi®, is a botanical (plant-based) drug extracted and purified from the red bark sap of the medicinal *Croton lechleri* tree in the Amazon rainforest. Napo has established a sustainable harvesting program for crofelemer to ensure a high degree of quality and ecological integrity.

About Jaguar Health, Inc.

Jaguar Health, Inc. is a natural-products pharmaceuticals company focused on developing and commercializing novel, sustainably derived gastrointestinal products for both human prescription use and animals on a global basis. Our wholly-owned subsidiary, Napo Pharmaceuticals, Inc., focuses on developing and commercializing proprietary human gastrointestinal pharmaceuticals for the global marketplace from plants used traditionally in rainforest areas. Our Mytesi® (crofelemer) product is approved by the U.S. FDA for the symptomatic relief of noninfectious diarrhea in adults with HIV/AIDS on antiretroviral therapy. Mytesi® is in development for multiple possible follow-on indications, including chemotherapy-induced diarrhea; orphan-drug indications for infants and children with congenital diarrheal disorders and short bowel syndrome; supportive care for inflammatory bowel disease (IBD); irritable bowel syndrome (IBS); and as a second-generation anti-secretory agent for use in cholera patients. Canalevia™ is our lead animal prescription drug candidate, intended for treatment of various forms of diarrhea in dogs. Equilevia™ is Jaguar’s non-prescription product for total gut health in equine athletes. Canalevia™ and Equilevia™ contain ingredients isolated and purified from the *Croton lechleri* tree, which is sustainably harvested. Neonorm™ Calf and Neonorm™ Foal are Jaguar’s lead non-prescription animal products. Mytesi®, Canalevia™, Equilevia™ and Neonorm™ are distinct products that act at the same last step in a physiological pathway generally present in mammals.

For more information about Jaguar, please visit jaguar.health. For more information about Napo, visit napopharma.com.

Forward-Looking Statements

Certain statements in this press release constitute “forward-looking statements” within the meaning of section 27A of the Securities Act of 1933 and section 21E of the Securities Exchange Act of 1934. These include statements regarding the development of potential Mytesi® follow-on indications, the proposed public offering, the expected gross proceeds from the offering, and the use of proceeds from the offering. In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “expect,” “plan,” “aim,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential” or “continue” or the negative of these terms or other similar expressions. The forward-looking statements in this release are only predictions. Jaguar has based these forward-looking statements largely on its current expectations and projections about future events. These forward-

looking statements speak only as of the date of this release and are subject to a number of risks, uncertainties and assumptions, some of which cannot be predicted or quantified and some of which are beyond Jaguar's control. Except as required by applicable law, Jaguar does not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

Source: Jaguar Health, Inc.

Contact:

Garth Russell

KCSA Strategic Communications

P: 212-896-1250

grussell@kcsa.com

Jaguar-JAGX
