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

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**FORM 8-K**

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

Date of report (Date of earliest event reported): **November 25, 2019**

**Fortress Biotech, Inc.**

(Exact Name of Registrant as Specified in Charter)

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

**001-35366**  
(Commission File Number)

**20-5157386**  
(IRS Employer  
Identification No.)

**2 Gansevoort Street, 9th Floor**  
**New York, New York 10014**  
(Address of Principal Executive Offices)

**(781) 652-4500**  
(Registrant's telephone number, including area code)

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

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

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock	FBIO	Nasdaq Capital Market
9.375% Series A Cumulative Redeemable Perpetual Preferred Stock	FBIO-P	Nasdaq Capital Market

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

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. ☐

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**Item 1.01 Entry into a Material Definitive Agreement.**

On November 25, 2019, Fortress Biotech, Inc. (“Fortress” or the “Company”) entered into an underwriting agreement (the “Underwriting Agreement”) with The Benchmark Company LLC (“Benchmark”) and ThinkEquity, a division of Fordham Financial Management (“ThinkEquity”), as representatives of the several underwriters named therein (the “Underwriters”). Pursuant to the Underwriting Agreement, the Company agreed to sell to the Underwriters, in a firm commitment underwritten public offering, 262,500 shares (the “Firm Shares”) of the Company’s 9.375% Series A Cumulative Redeemable Perpetual Preferred Stock, par value \$0.001 per share (the “Preferred Shares”), at a price to the public of \$20.00 per share, less underwriting discounts and commissions. In addition, pursuant to the Underwriting Agreement, the Company has granted the Underwriters an option, exercisable for 45 days, to purchase up to an additional 39,375 Preferred Shares (the “Additional Shares,” together with the Firm Shares, the “Shares”). On November 26, 2019, the Underwriters exercised their option for the Additional Shares. The transactions relating to the Shares contemplated by the Underwriting Agreement are expected to close on November 29, 2019, subject to the satisfaction of customary closing conditions. A copy of the Underwriting Agreement is attached hereto as Exhibit 10.1 and is incorporated by reference herein.

Benchmark and ThinkEquity are acting as book running managers for the offering. Dawson James Securities, Inc. is acting as co-manager.

The net proceeds to the Company for the Shares are expected to be approximately \$5,554,500, after deducting underwriting discounts and commissions payable to the underwriters.

The Underwriting Agreement contains customary representations, warranties and agreements by the Company, customary conditions to closing, indemnification obligations of the Company and the Underwriters, including for liabilities under the Securities Act of 1933, as amended (the “Securities Act”), other obligations of the parties and termination provisions.

Alston & Bird LLP, counsel to the Company, delivered an opinion as to the validity of the Shares, a copy of which is attached hereto as Exhibit 5.1 and is incorporated by reference herein.

**Item 8.01. Other Events.**

The following estimated Expense Table relating to the offering contemplated by the Underwriting Agreement is being filed herewith in order to be incorporated by reference into Registration Statement 333-226089:

Securities and Exchange Commission Registration Fee	\$	*
Legal Fees and Expenses	\$	175,000
Accountants’ Fees and Expenses	\$	50,000
Printing and Duplicating Fees	\$	20,000
Transfer Agent’s Fees and Expenses	\$	10,000
Miscellaneous Expenses	\$	80,000
Total	\$	335,000

\* Previously paid.

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**Item 9.01. Financial Statements and Exhibits.**

**(d) Exhibits.**

The following exhibits are filed herewith:

<b>Exhibit Number</b>	<b>Description</b>
<a href="#"><u>10.1</u></a>	<a href="#"><u>Underwriting Agreement, dated November 25, 2019, between Fortress Biotech, Inc., The Benchmark Company, LLC and ThinkEquity, a division of Fordham Financial Management, as representatives of the several underwriters named therein.</u></a>
<a href="#"><u>5.1</u></a>	<a href="#"><u>Opinion of Alston &amp; Bird, LLP.</u></a>
<a href="#"><u>23.1</u></a>	<a href="#"><u>Consent of Alston &amp; Bird, LLP (included in the opinion filed as Exhibit 5.1).</u></a>
<a href="#"><u>99.1</u></a>	<a href="#"><u>Press release issued by Fortress Biotech, Inc., dated November 25, 2019.</u></a>

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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.

**Fortress Biotech, Inc.**  
(Registrant)

Date: November 26, 2019

By: /s/ Lindsay A. Rosenwald, M.D.  
Lindsay A. Rosenwald, M.D.  
Chairman, President and Chief Executive Officer

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# ALSTON & BIRD

90 Park Avenue  
New York, NY 10016  
212-210-9400 | Fax: 212-210-9444

Mark F. McElreath

Direct Dial: 212-210-9595

Email: [mark.mcelreath@alston.com](mailto:mark.mcelreath@alston.com)

November 25, 2019

Fortress Biotech, Inc.  
2 Gansevoort Street, 9th Floor  
New York, NY 10014

Ladies and Gentlemen:

We are acting as counsel to Fortress Biotech, Inc., a Delaware corporation (the “Company”), in connection with the registration statement on Form S-3 (File No. 333-226089) filed by the Company with the Securities and Exchange Commission (the “Commission”) pursuant to the Securities Act of 1933, as amended (the “Securities Act”), initially on July 8, 2018 and amended on June 28, 2019 (the “Registration Statement”) and declared effective by the Commission on July 23, 2019, and the issuance and sale by you to The Benchmark Company, LLC and ThinkEquity, a division of Fordham Financial Management, as representatives of the several underwriters named on Schedule I (the “Underwriters”) to the Underwriting Agreement (the “Underwriting Agreement”), of 301,875 shares in the aggregate (the “Shares”) of the Company’s 9.735% Series A Perpetual Preferred Stock, liquidation preference of \$25.00 per share. The Company is issuing and selling the Shares to the Underwriters pursuant to the Underwriting Agreement dated November 25, 2019, between the Company and the Underwriters. This opinion is being furnished to you at your request in accordance with the requirements of Item 16 of the Commission’s Form S-3 and Item 601(b)(5) of Regulation S-K promulgated under the Securities Act.

We have examined the Amended and Restated Certificate of Incorporation of the Company, all amendments thereto and restatements thereof, the Second Amended and Restated Bylaws of the Company, records of proceedings of the Board of Directors, or committees thereof, and records of proceedings of the stockholders, deemed by us to be relevant to this opinion letter, and the Registration Statement. We also have made such further legal and factual examinations and investigations as we deemed necessary for purposes of expressing the opinion set forth herein. In rendering such opinion, we have relied as to factual matters upon the representations, warranties and other statements made in the Underwriting Agreement.

Alston & Bird LLP

[www.alston.com](http://www.alston.com)

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As to certain factual matters relevant to this opinion letter, we have relied conclusively upon originals or copies, certified or otherwise identified to our satisfaction, of such records, agreements, documents and instruments, including certificates or other comparable documents of officers of the Company and of public officials, as we have deemed appropriate as a basis for the opinion hereinafter set forth. Except to the extent expressly set forth herein, we have made no independent investigations with regard to matters of fact, and, accordingly, we do not express any opinion as to matters that might have been disclosed by independent verification.

Based upon the foregoing and subject to the limitations, qualifications, exceptions and assumptions set forth herein, we are of the opinion that the Shares have been duly authorized by all necessary corporate action of the Company and are validly issued, fully paid and nonassessable.

Our opinion set forth herein is limited to the General Corporation Law of the State of Delaware, the laws of the State of New York, and the federal law of the United States, and we do not express any opinion herein concerning any other laws.

This opinion letter is provided to the Company for its use solely in connection with the transactions contemplated by the Underwriting Agreement and may not be used, circulated, quoted or otherwise relied upon for any other purpose without our express written consent. The only opinion rendered by us consists of that set forth in the fourth paragraph of this letter, and no opinion may be implied or inferred beyond the opinion expressly stated. Our opinion expressed herein is as of the date hereof, and we undertake no obligation to advise you of any changes in applicable law or any other matters that may come to our attention after the date hereof that may affect our opinion expressed herein.

We consent to the filing of this opinion letter as an exhibit to a Current Report on Form 8-K to be incorporated by reference into the Registration Statement and to the use of our name under the heading "Legal Matters" in the prospectus supplement dated November 25, 2019 filed together with the prospectus dated July 23, 2019 by the Company with the Commission pursuant to Rule 424(b)(5) under the Securities Act on November 26, 2019. In giving such consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act, or the rules and regulations of the Commission thereunder.

Sincerely,

ALSTON & BIRD LLP

By: /s/ Mark F. McElreath  
Mark F. McElreath  
Partner

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**Fortress Biotech, Inc.**

**262,500 Shares of 9.375% Series A  
Cumulative Redeemable Perpetual Preferred Stock**

**Liquidation Preference \$25.00 per Share**

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**UNDERWRITING AGREEMENT**

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**November 25, 2019**

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## UNDERWRITING AGREEMENT

November 25, 2019

The Benchmark Company LLC  
150 East 58th Street, 17<sup>th</sup> Floor  
New York, NY 10155

ThinkEquity,  
A division of Fordham Financial Management  
17 State Street, 22<sup>nd</sup> Floor  
New York, NY 10004

As Representatives of the several Underwriters  
named in Schedule I hereto

Ladies and Gentlemen:

Fortress Biotech, Inc., a Delaware corporation (the “**Company**”), proposes to issue and sell to the several underwriters named in Schedule I hereto (the “**Underwriters**”), for whom The Benchmark Company LLC (“**Benchmark**”) and ThinkEquity, A division of Fordham Financial Management (“**ThinkEquity**”) are acting as Representatives (the “**Representatives**”), 262,500 shares (the “**Firm Shares**”) of the 9.375% Series A Cumulative Redeemable Perpetual Preferred Stock of the Company, liquidation preference \$25.00 per share (the “**Series A Preferred Stock**”), the Company’s authorized preferred stock (the “**Preferred Stock**”). The Company also proposes to sell to the several Underwriters, at the option of the Underwriters, up to an additional 39,375 shares of Series A Preferred Stock (the “**Option Shares**”). The Firm Shares and the Option Shares are hereinafter referred to collectively as the “**Shares**.”

This Underwriting Agreement (this “**Agreement**”) confirms the agreement among the Company and the Underwriters concerning the purchase of the Shares by the Underwriters.

As used in this Agreement:

- (a) “**Applicable Time**” means 5:00 p.m. (New York time) on the date of this Agreement;
- (b) “**Basic Prospectus**” means the base prospectus filed as part of the Registration Statement, in the form in which it has most recently been filed with the Commission on or prior to the date of this Agreement;
- (c) “**Business Day**” shall mean a day on which The NASDAQ Capital Market (“**NASDAQ**”) is open for trading and commercial banks in the City of New York are open for business;
- (d) “**Commission**” means the Securities and Exchange Commission;

(e) **“Effective Date”** means any date as of which any part of the Registration Statement became, or is deemed to have become, effective under the Securities Act in accordance with the Rules and Regulations;

(f) **“Exchange Act”** means the Securities Exchange Act of 1934, as amended;

(g) **“Preliminary Prospectus”** means any preliminary prospectus (including any preliminary prospectus supplement relating to the Shares) filed with the Commission by the Company pursuant to Rule 424(b) under the Securities Act and any reference to “most recent Preliminary Prospectus” shall be deemed to refer to the latest Preliminary Prospectus included in the Registration Statement or filed pursuant to Rule 424(b) of the Rules and Regulations on or prior to the date of this Agreement;

(h) **“Pricing Disclosure Package”** means, as of the Applicable Time, the most recent Preliminary Prospectus, together with (i) any Issuer Free Writing Prospectus filed with the Commission by the Company on or before the Applicable Time and identified on Schedule II hereto and (ii) the pricing information identified on Schedule II hereto;

(i) **“Prospectus”** means the form of the final prospectus, as first filed with the Commission by the Company pursuant to Rule 424(b) of the Rules and Regulations;

(j) **“Registration Statement”** means, collectively, the various parts of the shelf registration statement on Form S-3 (File No. 333-226089), including all exhibits, financial statements and any documents incorporated by reference therein at such time and any information in any prospectus supplement relating to the Shares that is filed with the Commission by the Company pursuant to Rule 424(b) of the Rules and Regulations and deemed to be a part of such registration statement pursuant to Rule 430B of the Rules and Regulations, each as amended at the latest Effective Date;

(k) **“Rules and Regulations”** means the rules and regulations of the Commission under the Securities Act; and

(l) **“Securities Act”** means the Securities Act of 1933, as amended.

Reference made herein to any Basic Prospectus, any Preliminary Prospectus or to the Prospectus shall be deemed to refer to and include any documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the Securities Act, as of the date of such prospectus; any reference to any amendment or supplement to the Basic Prospectus, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include any post-effective amendment to the Registration Statement, any prospectus supplement relating to the Shares filed with the Commission by the Company pursuant to Rule 424(b) under the Securities Act and any documents filed under the Exchange Act, and incorporated therein, in each case after the date of the Basic Prospectus, any Preliminary Prospectus or the Prospectus, as the case may be; any reference to any amendment to the Registration Statement shall be deemed to include any annual report of the Company filed with the Commission pursuant to Section 13(a) or 15(d) of the Exchange Act after the effective date of the Registration Statement that is incorporated by reference in the Registration Statement; and any “issuer free writing prospectus” as defined in Rule 433 under the Securities Act relating to the Shares is hereinafter called an **“Issuer Free Writing Prospectus.”**

**1. Representations and Warranties of the Company.** The Company represents and warrants to, and agrees with, the Underwriters that, as of the date hereof and as of the Closing Date and each Option Closing Date, if any:

(a) The Registration Statement has (i) been prepared by the Company in conformity with the requirements of the Securities Act and the Rules and Regulations; (ii) been filed with the Commission under the Securities Act; and (iii) become effective under the Securities Act. The Commission has not issued any order suspending the effectiveness of the Registration Statement or any part thereof, and no proceeding for such purpose has been instituted or, to the knowledge of the Company, threatened by the Commission.

(b) No order preventing or suspending the use of any Preliminary Prospectus or any Issuer Free Writing Prospectus has been issued by the Commission, and any Preliminary Prospectus, at the time of filing thereof, conformed in all material respects to the requirements of the Securities Act and the Rules and Regulations, and did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however*, that this representation and warranty shall not apply to any statements or omissions made in reliance upon and in strict conformity with the information furnished in writing to the Company by or on behalf of any Underwriter through the Representatives expressly for use therein, it being understood and agreed that the only such information provided by or on behalf of any Underwriter is that described as such in Section 8(a) of this Agreement.

(c) The Pricing Disclosure Package, as of the Applicable Time, did not include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; and each Issuer Free Writing Prospectus listed on Schedule II hereto does not conflict with the information contained in the Registration Statement, Pricing Disclosure Package or the Prospectus, and each such Issuer Free Writing Prospectus, as supplemented by and taken together with Pricing Disclosure Package as of the Applicable Time, did not include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however*, that this representation and warranty shall not apply to statements or omissions made in an Issuer Free Writing Prospectus or Pricing Disclosure Package in reliance upon and in strict conformity with the information furnished in writing to the Company by or on behalf of any Underwriter through the Representatives expressly for use therein, it being understood and agreed that the only such information provided by or on behalf of any Underwriter is that described as such in Section 8(a) of this Agreement.

(d) The Registration Statement, at each Effective Date, and the Prospectus, as of its date and on the Closing Date (and, if any Option Shares are purchased, at each Option Closing Date), did not and will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein (in the case of the Prospectus, in the light of the circumstances under which they were made) not misleading; *provided*, that no representation or warranty is made as to information contained in or omitted from the Registration Statement or the Prospectus in reliance upon and in strict conformity with the information furnished in writing to the Company by or on behalf of any Underwriter through the Representatives expressly for use therein, it being understood and agreed that the only such information provided by or on behalf of any Underwriter is that described as such in Section 8(a) of this Agreement. The conditions for use of Form S-3, as set forth in the General Instructions thereto, have been satisfied.

(e) The Pricing Disclosure Package and the Prospectus will conform in all material respects when filed with the Commission pursuant to Rule 424(b) and on the Closing Date (and, if any Option Shares are purchased, at each Option Closing Date) to the requirements of the Securities Act and the Rules and Regulations. The documents incorporated by reference in the Registration Statement, Pricing Disclosure Package and the Prospectus, when they became effective or when filed with the Commission, as the case may be, conformed in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder, and none of such documents contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein not misleading; and any further documents so filed and incorporated by reference in the Registration Statement and the Prospectus, when filed with Commission and on the Closing Date (and, if any Option Shares are purchased, at each Option Closing Date), will conform in all material respects to the requirements of the Securities Act and the Exchange Act, as applicable, and the Rules and Regulations and the rules and regulations of the Commission under the Exchange Act, as applicable and will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading.

(f) The consolidated financial statements of the Company included or incorporated by reference in the Registration Statement, the Prospectus and Pricing Disclosure Package, if any, together with the related notes and schedules, complied as to form in all material respects with applicable accounting requirements and the published rules and regulations of the Commission with respect thereto as in effect as of the time of filing. Such financial statements have been prepared in compliance in all material respects with the requirements of the Securities Act and Exchange Act, as applicable, and in conformity with generally accepted accounting principles in the United States (“GAAP”) applied on a consistent basis (except for such adjustments to accounting standards and practices as are noted therein) during the periods involved (subject, in the case of unaudited statements, to normal recurring adjustments); the other financial and statistical data with respect to the Company and the Subsidiaries (as defined below) contained or incorporated by reference in the Registration Statement, the Prospectus and Pricing Disclosure Package, if any, are accurately and fairly presented and prepared on a basis consistent with the financial statements and books and records of the Company; there are no financial statements (historical or pro forma) that are required to be included or incorporated by reference in the Registration Statement, the Prospectus or Pricing Disclosure Package that are not included or incorporated by reference as required; the Company and the Subsidiaries do not have any material liabilities or obligations, direct or contingent (including any off-balance sheet obligations), not described in the Registration Statement (including the exhibits thereto and documents incorporated by reference therein), and the Prospectus which are required to be described in the Registration Statement, the Prospectus and Pricing Disclosure Package (including exhibits thereto and documents incorporated by reference therein); and all disclosures contained or incorporated by reference in the Registration Statement, the Prospectus and Pricing Disclosure Package, if any, regarding “non-GAAP financial measures” (as such term is defined by the rules and regulations of the Commission) comply in all material respects with Regulation G of the Exchange Act and Item 10 of Regulation S-K under the Securities Act, to the extent applicable.

(g) The Pricing Disclosure Package and Prospectus delivered to the Underwriters for use in connection with the sale of the Shares pursuant to this Agreement will be identical to the versions of Pricing Disclosure Package and Prospectus created to be transmitted to the Commission for filing via EDGAR, except to the extent permitted by Regulation S-T.

(h) The Company and the Subsidiaries are, and will be, duly organized, validly existing as corporations and in good standing under the laws of their respective jurisdictions of organization. The Company and the Subsidiaries are, and will be, duly licensed or qualified as a foreign corporation for transaction of business and in good standing under the laws of each other jurisdiction in which their respective ownership or lease of property or the conduct of their respective businesses requires such license or qualification, and have all corporate power and authority necessary to own or hold their respective properties and to conduct their respective businesses as described in the Registration Statement, the Prospectus and Pricing Disclosure Package, except where the failure to be so qualified or in good standing or have such power or authority would not, individually or in the aggregate, have a material adverse effect or would reasonably be expected to have a material adverse effect on the assets, business, operations, earnings, properties, condition (financial or otherwise), prospects, stockholders' equity (as set forth on the Company's most recent balance sheet included in the documents incorporated by reference therein) or results of operations of the Company and the Subsidiaries taken as a whole, or prevent or materially interfere with consummation of the transactions contemplated hereby (a "**Material Adverse Effect**").

(i) The list on Schedule III hereto sets forth a complete list of the Company's materially active subsidiaries (each a "**Subsidiary**," and collectively, the "**Subsidiaries**"). Except as set forth in the Registration Statement, the Prospectus and Pricing Disclosure Package, the Company's equity interests of the Subsidiaries are free and clear of any lien, charge, security interest, encumbrance, right of first refusal or other restriction, and all the equity interests of the Subsidiaries are validly issued and are fully paid, nonassessable and free of preemptive and similar rights.

(j) Neither the Company nor the Subsidiaries are (i) in violation of its charter or by-laws or similar organizational documents; (ii) in default, and no event has occurred that, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or the Subsidiaries are party or by which the Company or Subsidiaries are bound or to which any of the property or assets of the Company or the Subsidiaries is subject; or (iii) in violation of any law or statute or any judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority having jurisdiction over the Company, except, in the case of each of clauses (ii) and (iii) above, for any such violation or default that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(k) Subsequent to the respective dates as of which information is given in the Registration Statement, the Prospectus and Pricing Disclosure Package (including the documents incorporated by reference therein), there has not been (i) any Material Adverse Effect, or any development involving a prospective Material Adverse Effect, in or affecting the business, properties, management, condition (financial or otherwise), results of operations, or prospects of the Company and the Subsidiaries taken as a whole, (ii) other than the transactions contemplated by this Agreement, any transaction which is material to the Company and the Subsidiaries taken as a whole, (iii) any obligation or liability, direct or contingent (including any off-balance sheet obligations), incurred by the Company or any Subsidiaries, which is material to the Company and the Subsidiaries taken as a whole, (iv) any material change in the capital stock (other than (a) as a result of the sale of Shares (b) changes in the number of outstanding shares of common stock, par value \$0.001 per share (the "**Common Stock**") due to the issuance of shares upon the exercise or conversion of securities exercisable for, or convertible into, shares of Common Stock outstanding on the date hereof, or (c) the issuance of options or warrants to purchase Common Stock or the issuance of restricted stock or other equity awards of the Company, in each case, pursuant to the Company's equity incentive plans) or outstanding long-term indebtedness of the Company or the Subsidiaries or (v) any dividend or distribution of any kind declared, paid or made on the capital stock of the Company or any Subsidiary, other than in each case above (A) in the ordinary course of business, (B) as otherwise disclosed in the Registration Statement, Prospectus or Pricing Disclosure Package (including the documents incorporated by reference therein) or (C) where such matter, item, change, or development would not make the statements in the Registration Statement, the Prospectus and Pricing Disclosure Package contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading.

(l) The issued and outstanding shares of capital stock of the Company have been validly issued, are fully paid and non-assessable and, other than as disclosed in or contemplated by the Registration Statement, the Prospectus and Pricing Disclosure Package, are not subject to any preemptive rights, rights of first refusal or similar rights. The Company has an authorized, issued and outstanding capitalization as set forth in the Registration Statement, the Prospectus and Pricing Disclosure Package as of the dates referred to therein (other than the grant of additional options, restricted stock or other equity awards under the Company's equity incentive plans, or changes in the number of outstanding Common Stock of the Company due to the issuance of shares upon the exercise or conversion of securities exercisable for, or convertible into, Common Stock outstanding on the date hereof or as a result of the issuance of Shares) and such authorized capital stock conforms in all material respects to the description thereof set forth in the Registration Statement, the Prospectus and Pricing Disclosure Package. The description of the Series A Preferred Stock in the Registration Statement, the Prospectus and Pricing Disclosure Package is complete and accurate in all material respects. Except as disclosed in or contemplated by the Registration Statement, the Prospectus, or Pricing Disclosure Package, as of the date referred to therein, the Company did not have outstanding any options to purchase, or any rights or warrants to subscribe for, or any securities or obligations convertible into, or exchangeable for, or any contracts or commitments to issue or sell, any shares of capital stock or other securities.

(m) The Company has full legal right, power and authority to enter into this Agreement and perform the transactions contemplated hereby. This Agreement has been duly authorized, executed and delivered by the Company and is a legal, valid and binding agreement of the Company enforceable against the Company in accordance with its terms, except to the extent that (i) enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally and by general equitable principles and (ii) the indemnification and contribution provisions of Section 8 hereof may be limited by federal or state securities laws and public policy considerations in respect thereof.

(n) The Shares, when issued and delivered pursuant to the terms approved by the board of directors of the Company or a duly authorized committee thereof, or a duly authorized executive committee, against payment therefor as provided herein, will be duly and validly authorized and issued and fully paid and nonassessable, free and clear of any pledge, lien, encumbrance, security interest or other claim (other than any pledge, lien, encumbrance, security interest or other claim arising from an act or omission of the Underwriters or a purchaser), including any statutory or contractual preemptive rights, resale rights, rights of first refusal or other similar rights, and will be registered pursuant to Section 12 of the Exchange Act. The Shares, when issued, will conform in all material respects to the description thereof set forth in or incorporated into the Prospectus and Pricing Disclosure Package.

(o) No consent, approval, authorization, order, registration or qualification of or with any court or arbitrator or any governmental or regulatory authority having jurisdiction over the Company is required for the execution, delivery and performance by the Company of this Agreement, and the issuance and sale by the Company of the Shares as contemplated hereby, except for the registration of the Shares under the Securities Act and such consents, approvals, authorizations, orders and registrations or qualifications as may be required under the Exchange Act, applicable state securities laws or by the by-laws and rules of Financial Industry Regulatory Authority (“**FINRA**”) or NASDAQ in connection with the sale of the Shares by the Underwriters.

(p) Except as set forth in the Registration Statement, the Prospectus and Pricing Disclosure Package, (i) no person, as such term is defined in Rule 1-02 of Regulation S-X promulgated under the Securities Act (each, a “**Person**”), has the right, contractual or otherwise, to cause the Company to issue or sell to such Person any Series A Preferred Stock or shares of any other capital stock or other securities of the Company (other than upon the exercise of options or warrants to purchase Common Stock or upon the exercise of options that may be granted or issuances of Common Stock or other equity awards, from time to time under the Company’s equity incentive plans), (ii) no Person has any preemptive rights, rights of first refusal, or any other rights (whether pursuant to a “poison pill” provision or otherwise) to purchase any Series A Preferred Stock or shares of any other capital stock or other securities of the Company from the Company which have not been duly waived with respect to the offering contemplated hereby, (iii) except as may be disclosed to the Underwriters in writing, no Person has the right to act as an underwriter or as a financial advisor to the Company in connection with the offer and sale of the Series A Preferred Stock, and (iv) no Person has the right, contractual or otherwise, to require the Company to register under the Securities Act any Series A Preferred Stock or shares of any other capital stock or other securities of the Company, or to include any such shares or other securities in the Registration Statement or the offering contemplated thereby, whether as a result of the filing or effectiveness of the Registration Statement or the sale of the Shares as contemplated thereby or otherwise, except for such rights as have been waived on or prior to the date hereof.

(q) BDO USA LLP (the “**Accountants**”), whose reports on the consolidated financial statements of the Company are filed with the Commission as part of the Company’s most recent Annual Report on Form 10-K filed with the Commission and incorporated into the Registration Statement, are and, during the periods covered by their respective reports, were independent registered public accounting firms within the meaning of the Securities Act and the Public Company Accounting Oversight Board (United States). To the Company’s knowledge, the Accountants are not in violation of the auditor independence requirements of the Sarbanes-Oxley Act of 2002 (the “**Sarbanes-Oxley Act**”) with respect to the Company.

(r) All agreements between the Company and third parties expressly referenced in the Prospectus and Pricing Disclosure Package, other than such agreements that have expired by their terms or whose termination is disclosed in documents filed by the Company on EDGAR, are legal, valid and binding obligations of the Company enforceable against the Company in accordance with their respective terms, except to the extent that (i) enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors’ rights generally and by general equitable principles and (ii) the indemnification provisions of certain agreements may be limited by federal or state securities laws or public policy considerations in respect thereof, except for any unenforceability that, individually or in the aggregate, would not reasonably be expected to have a Material Adverse Effect.

(s) Except as set forth in the Registration Statement, the Prospectus or Pricing Disclosure Package, there are no legal, governmental or regulatory actions, suits or proceedings pending, nor, to the Company's knowledge, any legal, governmental or regulatory investigations, to which the Company or a Subsidiary is a party or to which any property of the Company or a Subsidiary is the subject that, individually or in the aggregate, if determined adversely to the Company or the Subsidiaries, would reasonably be expected to have a Material Adverse Effect or materially and adversely affect the ability of the Company to perform its obligations under this Agreement; to the Company's knowledge, no such actions, suits or proceedings are threatened or contemplated by any governmental or regulatory authority or threatened by others that, individually or in the aggregate, are reasonably be expected to have a Material Adverse Effect; and (i) there are no current or pending legal, governmental or regulatory actions, suits or proceedings, or, to the Company's knowledge, investigations, that are required under the Securities Act to be described in the Prospectus or Pricing Disclosure Package that are not described in the Prospectus or Pricing Disclosure Package, including any documents incorporated by reference therein; and (ii) there are no contracts or other documents that are required under the Securities Act to be filed as exhibits to the Registration Statement that are not so filed.

(t) Except as set forth in the Registration Statement, the Prospectus or Pricing Disclosure Package, the Company and the Subsidiaries possess or have obtained, all licenses, certificates, consents, orders, approvals, permits and other authorizations issued by, and have made all declarations and filings with, the appropriate federal, state, local or foreign governmental or regulatory authorities that are necessary for the ownership or lease of their respective properties or the conduct of their respective businesses as described in the Registration Statement, the Prospectus and Pricing Disclosure Package (the "**Permits**"), except where the failure to possess, obtain or make the same would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. Except as disclosed in the Registration Statement, the Prospectus or Pricing Disclosure Package, neither the Company nor the Subsidiaries have received written notice of any proceeding relating to revocation or modification of any such Permit or has any reason to believe that such Permit will not be renewed in the ordinary course, except where the failure to obtain any such renewal would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(u) Neither the Company nor the Subsidiaries has defaulted on any installment on indebtedness for borrowed money or on any rental on one or more long-term leases, which defaults, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect. The Company has not filed a report pursuant to Section 13(a) or 15(d) of the Exchange Act since the filing of its last Annual Report on Form 10-K, indicating that it (i) has failed to pay any dividend or sinking fund installment on preferred stock or (ii) has defaulted on any installment on indebtedness for borrowed money or on any rental on one or more long-term leases, which defaults, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect.

(v) Neither the Company, nor the Subsidiaries, nor, to the Company's knowledge, any of their respective directors, officers or controlling persons has taken, directly or indirectly, any action designed, or that has constituted or might reasonably be expected to cause or result in, under the Exchange Act or otherwise, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares.

(w) Neither the Company nor any of its Subsidiaries (excluding those currently registered as a broker or dealer) (i) is required to register as a "broker" or "dealer" in accordance with the provisions of the Exchange Act or (ii) directly or indirectly through one or more intermediaries, controls or is a "person associated with a member" or "associated person of a member" (within the meaning set forth in the FINRA Manual).

(x) The Company has not relied upon Underwriters or legal counsel for the Underwriters for any legal, tax or accounting advice in connection with the offering and sale of the Shares.

(y) The Company and the Subsidiaries have filed all federal, state, local and foreign income tax returns and all other material tax returns which have been required to be filed and paid all taxes shown thereon through the date hereof, to the extent that such taxes have become due and are not being contested in good faith, except where the failure to do so would not reasonably be expected to have a Material Adverse Effect. Except as otherwise disclosed in or contemplated by the Registration Statement, the Prospectus or Pricing Disclosure Package, no tax deficiency has been determined adversely to the Company or the Subsidiaries which has had, or would reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect. The Company has no knowledge of any federal, state or other governmental tax deficiency, penalty or assessment which has been asserted or threatened against it in writing which would have a Material Adverse Effect.

(z) Except as set forth in the Registration Statement, the Prospectus or Pricing Disclosure Package, the Company and the Subsidiaries have good and valid title in fee simple to all items of real property and good and marketable title to all personal property (excluding Intellectual Property which is addressed below) described in the Registration Statement, Prospectus or Pricing Disclosure Package as being owned by them that are material to the businesses of the Company or such Subsidiary, in each case free and clear of all liens, encumbrances and claims, except those that (i) do not materially interfere with the use made and proposed to be made of such property by the Company and the Subsidiaries or (ii) would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect. Any real property described in the Registration Statement, Prospectus or Pricing Disclosure Package as being leased by the Company and the Subsidiaries is held by them under valid, existing and enforceable leases, except those that (A) do not materially interfere with the use made or proposed to be made of such property by the Company or the Subsidiaries or (B) would not be reasonably expected, individually or in the aggregate, to have a Material Adverse Effect.

(aa) Except as set forth in the Registration Statement, the Prospectus or Pricing Disclosure Package, to the Company's and the Subsidiaries' knowledge, the Company and the Subsidiaries own or possess adequate and valid rights to use all patents, patent applications, trademarks (both registered and unregistered), service marks, trade names, trademark registrations, service mark registrations, copyrights, licenses and know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures) (collectively, the "**Intellectual Property**"), necessary for the conduct of their respective businesses as conducted as of the date hereof, except to the extent that the failure to own or possess adequate rights to use such Intellectual Property would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; except as disclosed in writing to Underwriters, the Company and the Subsidiaries have not received any written notice of any claim of infringement or conflict which asserted Intellectual Property rights of others, which infringement or conflict, if the subject of an unfavorable decision, would reasonably be expected to result in a Material Adverse Effect; there are no pending, or to the Company's and the Subsidiaries' knowledge, threatened judicial proceedings or interference proceedings against the Company or the Subsidiaries challenging the Company's or any Subsidiaries' rights in or to or the validity of the scope of any of the Company's or the Subsidiaries' material patents, patent applications or proprietary information, except for such proceedings that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; no other entity or individual has any right or claim in any of the Company's or the Subsidiaries' material patents, patent applications or any patent to be issued therefrom by virtue of any contract, license or other agreement entered into between such entity or individual and the Company or a Subsidiary or by any non-contractual obligation, other than by written licenses granted by the Company or the Subsidiaries, except for such right or claim that would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; the Company and the Subsidiaries have not received any written notice of any claim challenging the rights of the Company or the Subsidiaries in or to any Intellectual Property owned, licensed or optioned by the Company or the Subsidiaries which claim, if the subject of an unfavorable decision would reasonably be expected to result in a Material Adverse Effect.

(bb) Except as set forth in the Registration Statement, the Prospectus and Pricing Disclosure Package, the Company and the Subsidiaries (i) are in compliance in all material respects with any and all applicable federal, state, local and foreign laws, rules, regulations, decisions and orders relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants (collectively, “**Environmental Laws**”); (ii) have received and are in compliance in all material respects with all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses as described in the Registration Statement, the Prospectus and Pricing Disclosure Package; and (iii) have not received written notice of any actual or potential liability for the investigation or remediation of any disposal or release of hazardous or toxic substances or wastes, pollutants or contaminants, except, in the case of any of clauses (i), (ii) or (iii) above, for any such failure to comply or failure to receive required permits, licenses, other approvals or liability as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(cc) The Company maintains systems of internal accounting controls designed 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 is not aware of any material weaknesses in its internal control over financial reporting. Since the date of the latest audited financial statements of the Company included in the Prospectus and Pricing Disclosure Package, there has been no change in the Company’s internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting (other than as set forth in the Prospectus and Pricing Disclosure Package). The Company has established disclosure controls and procedures (as defined in Exchange Act Rules 13a-15 and 15d-15) for the Company and designed such disclosure controls and procedures to ensure that material information relating to the Company and the Subsidiaries is made known to the certifying officers by others within those entities, particularly during the period in which the Company’s Annual Report on Form 10-K or Quarterly Report on Form 10-Q, as the case may be, is being prepared. The Company’s certifying officers have evaluated the effectiveness of the Company’s controls and procedures as of a date within 90 days prior to the filing date of the Form 10-K for the fiscal year most recently ended (such date, the “**Evaluation Date**”). The Company presented in its Form 10-K for the fiscal year most recently ended 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 significant changes in the Company’s internal controls (as such term is defined in Item 307(b) of Regulation S-K under the Securities Act) or, to the Company’s knowledge, in other factors that could significantly adversely affect the Company’s internal controls. To the knowledge of the Company, the Company’s “internal controls over financial reporting” and “disclosure controls and procedures” are effective.

(dd) There is and has been no failure on the part of the Company or, to the knowledge of the Company, any of the Company’s directors or officers, in their capacities as such, to comply with any applicable provisions of the Sarbanes-Oxley Act and the rules and regulations promulgated thereunder. Each of the principal executive officer and the principal financial officer of the Company (or each former principal executive officer of the Company and each former principal financial officer of the Company as applicable) has made all certifications required by Sections 302 and 906 of the Sarbanes-Oxley Act with respect to all reports, schedules, forms, statements and other documents required to be filed by it or furnished by it to the Commission during the past 12 months. For purposes of the preceding sentence, “principal executive officer” and “principal financial officer” shall have the meanings given to such terms in the Sarbanes-Oxley Act.

(ee) Neither the Company nor the Subsidiaries has incurred any liability for any finder's fees, brokerage commissions or similar payments in connection with the transactions herein contemplated, except as may otherwise exist with respect to the Underwriters pursuant to this Agreement.

(ff) No labor disturbance by or dispute with employees of the Company or the Subsidiaries exists or, to the knowledge of the Company, is threatened which would reasonably be expected to result in a Material Adverse Effect.

(gg) Neither the Company nor the Subsidiaries or, after giving effect to the offering and sale of the Shares, will be an "investment company" or an entity "controlled" by an "investment company," as such terms are defined in the Investment Company Act of 1940, as amended (the "**Investment Company Act**").

(hh) The operations of the Company and the Subsidiaries are and have been conducted at all times in compliance in all material respects with applicable financial record keeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions to which the Company or the Subsidiaries are subject, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency having jurisdiction over the Company (collectively, the "**Money Laundering Laws**"), except as would not reasonably be expected to result in a Material Adverse Effect; and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or the Subsidiaries with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(ii) There are no transactions, arrangements and other relationships between and/or among the Company, and/or, to the knowledge of the Company, any of its affiliates and any unconsolidated entity, including, but not limited to, any structured finance, special purpose or limited purpose entity (each, an "**Off Balance Sheet Transaction**") that would reasonably be expected to affect materially the Company's liquidity or the availability of or requirements for its capital resources, including those Off Balance Sheet Transactions described in the Commission's Statement about Management's Discussion and Analysis of Financial Conditions and Results of Operations (Release Nos. 33-8056; 34-45321; FR-61), required to be described in the Prospectus which have not been described as required.

(jj) To the knowledge of the Company, (i) each material employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ("**ERISA**"), that is maintained, administered or contributed to by the Company or any of its affiliates for employees or former employees of the Company and the Subsidiaries has been maintained in material compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to ERISA and the Internal Revenue Code of 1986, as amended (the "**Code**"); (ii) no prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code, has occurred which would result in a material liability to the Company with respect to any such plan excluding transactions effected pursuant to a statutory or administrative exemption; and (iii) for each such plan that is subject to the funding rules of Section 412 of the Code or Section 302 of ERISA, no "accumulated funding deficiency" as defined in Section 412 of the Code has been incurred, whether or not waived, and the fair market value of the assets of each such plan (excluding for these purposes accrued but unpaid contributions) equals or exceeds the present value of all benefits accrued under such plan determined using reasonable actuarial assumptions other than, in the case of (i), (ii) and (iii) above, as would not reasonably be expected to have a Material Adverse Effect.

(kk) No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) (a “**Forward Looking Statement**”) contained in the Registration Statement, the Prospectus and Pricing Disclosure Package has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith. The Forward Looking Statements incorporated by reference in the Registration Statement, the Prospectus and Pricing Disclosure Package from the Company’s Annual Report on Form 10-K for the fiscal year most recently ended (i) except for any Forward Looking Statement included in any financial statements and notes thereto, are, to the Company’s knowledge, within the coverage of the safe harbor for forward looking statements set forth in Section 27A of the Securities Act, Rule 175(b) under the Securities Act or Rule 3b-6 under the Exchange Act, as applicable, (ii) were made by the Company with a reasonable basis and in good faith and reflect the Company’s good faith commercially reasonable best estimate of the matters described therein as of the respective dates on which such statements were made, and (iii) have been prepared in accordance with Item 10 of Regulation S-K under the Securities Act.

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

(mm) The Company and the Subsidiaries carry, or are covered by, insurance in such amounts and covering such risks as the Company and the Subsidiaries reasonably believe are adequate for the conduct of their business and as is customary for companies of similar size engaged in similar businesses in similar industries.

(nn) (i) Neither the Company nor, to the Company’s knowledge, the Subsidiaries, nor to the Company’s knowledge, any of their respective executive officers has, in the past five years, made any unlawful contributions to any candidate for any political office (or failed fully to disclose any contribution in violation of law) or made any contribution or other payment to any official of, or candidate for, any federal, state, municipal, or foreign office or other person charged with similar public or quasi-public duty in violation of any law or of the character required to be disclosed in the Prospectus; (ii) to the Company’s knowledge, no relationship, direct or indirect, exists between or among the Company or, to the Company’s knowledge, any Subsidiaries or any affiliate of any of them, on the one hand, and the directors, officers and stockholders of the Company or, to the Company’s knowledge, any Subsidiaries, on the other hand, that is required by the Securities Act to be described in the Registration Statement, the Prospectus and Pricing Disclosure Package that is not so described; (iii) to the Company’s knowledge, no relationship, direct or indirect, exists between or among the Company or any Subsidiary or any affiliate of them, on the one hand, and the directors, officers, stockholders or directors of the Company or, to the Company’s knowledge, any Subsidiary, on the other hand, that is required by the rules of FINRA to be described in the Registration Statement, the Prospectus and Pricing Disclosure Package that is not so described; (iv) except as described in the Prospectus and Pricing Disclosure Package, there are no material outstanding loans or advances or material guarantees of indebtedness by the Company or, to the Company’s knowledge, any Subsidiary to or for the benefit of any of their respective officers or directors or any of the members of the families of any of them; and (v) to the Company’s knowledge, no officer or director of the Company has offered, or caused any placement agent to offer, Common Stock to any person with the intent to influence unlawfully (A) a customer or supplier of the Company or any Subsidiary to alter the customer’s or supplier’s level or type of business with the Company or any Subsidiary or (B) a trade journalist or publication to write or publish favorable information about the Company or any Subsidiary or any of their respective products or services; and, (vi) neither the Company nor any Subsidiary nor, to the Company’s knowledge, any employee or agent of the Company or any Subsidiary has made any payment of funds of the Company or any Subsidiary or received or retained any funds in violation of any law, rule or regulation (including, without limitation, the Foreign Corrupt Practices Act of 1977), which payment, receipt or retention of funds is of a character required to be disclosed in the Registration Statement, the Prospectus or Pricing Disclosure Package.

(oo) The Company was not and is not an ineligible issuer as defined in Rule 405 under the Securities Act at the times specified in Rules 164 and 433 under the Securities Act in connection with the offering of the Shares.

(pp) Neither the execution of this Agreement by the Company, nor the issuance, offering or sale of the Shares, nor the consummation by the Company of any of the transactions contemplated herein and therein, nor the compliance by the Company with the terms and provisions hereof and thereof will conflict with, or will result in a breach of, any of the terms and provisions of, or has constituted or will constitute a default under, or has resulted in or will result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company pursuant to the terms of any contract or other agreement to which the Company may be bound or to which any of the property or assets of the Company is subject, except (i) such conflicts, breaches or defaults as may have been waived and (ii) such conflicts, breaches, defaults, liens, charges or encumbrances that would not reasonably be expected to have a Material Adverse Effect; nor will such action result (x) in any violation of the provisions of the certificate of incorporation or bylaws of the Company, or (y) in any material violation of the provisions of any statute or any order, rule or regulation applicable to the Company or of any court or of any federal, state or other regulatory authority or other government body having jurisdiction over the Company, except where such violation would not reasonably be expected to have a Material Adverse Effect.

(qq) The clinical, pre-clinical and other studies and tests conducted by or, to the knowledge of the Company, on behalf of the Company were, and, if still pending, are being, conducted in accordance in all material respects with all statutes, laws, rules and regulations, as applicable (including, without limitation, those administered by the U.S. Food and Drug Administration's (the "**FDA**") Good Laboratory Practices and Good Clinical Practices as well as all other applicable rules, regulations, or requirements of the FDA or by any foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA), except where the failure do so would not have a Material Adverse Effect. Except as set forth in the Registration Statement, Prospectus and Pricing Disclosure Package, the Company has not received any written notices or other written correspondence from the FDA or any other foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA requiring the Company to terminate or suspend any ongoing clinical or pre-clinical studies or tests.

(rr) Except as disclosed in the Registration Statement, Prospectus and Pricing Disclosure Package, the Company has established and administers a compliance program applicable to the Company, to assist the Company and the directors, officers and employees of the Company in complying with applicable regulatory guidelines (including, without limitation, those administered by the FDA and any other foreign, federal, state or local governmental or regulatory authority performing functions similar to those performed by the FDA), except where such noncompliance would not reasonably be expected to have a Material Adverse Effect.

(ss) OFAC.

(i) The Company represents that, neither the Company nor the Subsidiaries (collectively, the “**Entity**”), and to the Company’s knowledge, no director, officer, employee agent, affiliate or representative of the Entity, is a government, individual, or entity (in this paragraph (ss), “**Person**”) that is, or is owned or controlled by a Person that is:

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

(b) located, organized or resident in a country or territory that is the subject of Sanctions.

(ii) The Company represents and covenants that it will not, directly or indirectly, knowingly use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other Person:

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

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

(iii) The Company represents and covenants that, except as detailed in the Prospectus and Pricing Disclosure Package, for the past five years it has not knowingly engaged in and is not now knowingly engaged in any dealings or transactions with any Person, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions

(tt) On the Closing Date, and each Option Closing Date, if any, all stock transfer or other taxes (other than income taxes) which are required to be paid by the Company in connection with the sale and transfer of the Shares to be sold hereunder will be, or will have been, fully paid or provided for by the Company and all laws imposing such taxes will be or will have been fully complied with by the Company in all material respects.

(uu) The Series A Preferred Shares, including the Shares, will be issued in compliance with all applicable rules of NASDAQ as of the Closing Date, and any Option Closing Date, as applicable.

(vv) To enable the Underwriters to rely on Rule 5110(b)(7)(C)(i) of FINRA, the Company represents that the Company satisfies the pre-1992 eligibility requirements for the use of a registration statement on Form S-3 in connection with this offering.

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

2. **Sale and Purchase.** Subject to the terms and conditions herein set forth, (a) the Company agrees to sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, at a purchase price per share of \$18.40 (the “**Purchase Price**”), the number of Firm Shares determined by multiplying the aggregate number of Firm Shares to be sold by the Company hereunder by a fraction, the numerator of which is the aggregate number of Firm Shares to be purchased by such Underwriter as set forth opposite the name of such Underwriter in Schedule I hereto and the denominator of which is the aggregate number of Firm Shares to be purchased by all of the Underwriters from the Company hereunder and (b) in the event and to the extent that the Underwriters shall exercise the election to purchase Option Shares as provided below, the Company agrees to sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, at the Purchase Price, the number of Option Shares (to be adjusted by the Representatives so as to eliminate fractional shares) determined by multiplying the number of Option Shares as to which such election shall have been exercised by the fraction set forth in clause (a) above.

The Company hereby grants to the Underwriters the right to purchase at their election up to an additional 39,375 Option Shares, at the Purchase Price. The Underwriters may exercise their option to acquire Option Shares in whole or in part from time to time only by written notice from the Representatives to the Company, given within a period of forty-five (45) calendar days after the date of this Agreement and setting forth the aggregate number of Option Shares to be purchased and the date on which such Option Shares are to be delivered, as determined by the Representatives but in no event earlier than the Closing Date or, unless the Representatives and the Company otherwise agree in writing, earlier than one or later than five (5) business days after the date of such notice.

It is understood that the several Underwriters propose to offer the Firm Shares for sale to the public upon the terms and conditions set forth in the Prospectus.

3. **Payment and Delivery.** The Company will deliver the Firm Shares to the Representatives through the facilities of The Depository Trust Company (“**DTC**”) for the accounts of the Underwriters, against payment of the purchase price therefor in Federal (same day) funds by wire transfer drawn to the order of the Company at the offices of Duane Morris LLP, 1540 Broadway, New York, NY 10036, at 9:00 A.M., New York time, on November 29, 2019, or at such other time not later than seven (7) full business days thereafter as the Representatives and the Company may determine, such time being herein referred to as the “**Closing Date**.” For purposes of Rule 15c6-1 under the Exchange Act, the Closing Date (if later than the otherwise applicable settlement date) shall be the settlement date for payment of funds and delivery of securities for all the Firm Shares.

Each time for the delivery of and payment for the Option Shares, being herein referred to as an “**Option Closing Date**,” which may be the Closing Date, shall be determined by the Representatives and the Company as provided above. The Company will deliver the Option Shares being purchased on each Option Closing Date to the Representatives through the facilities of DTC for the accounts of the Underwriters, against payment of the purchase price therefor in Federal (same day) funds by wire transfer drawn to the order of the Company at the above office of Duane Morris LLP, at 9:00 A.M., New York time on the applicable Option Closing Date.

4. **Certain Covenants of the Company.** The Company hereby covenants and agrees with each of the Underwriters that:

(a) The Company, subject to Section 4(b), will comply with the requirements of Rule 430B under the Securities Act, and will notify the Representatives immediately, and confirm the notice in writing, (i) when any post-effective amendment to the Registration Statement shall become effective, or any supplement to the Prospectus or any amended prospectus shall have been filed, to furnish the Representatives with copies thereof, and to file promptly all materials required to be filed by the Company with the Commission pursuant to Rule 433(d) under the Securities Act, (ii) of the receipt of any comments from the Commission, (iii) of any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to the Prospectus or for additional information, and (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of any order preventing or suspending the use of any Preliminary Prospectus, or of the suspension of the qualification of the Shares for offering or sale in any jurisdiction, or of the initiation or threatening of any proceedings for any of such purposes. The Company will timely effect the filings necessary pursuant to Rule 424(b) under the Securities Act and will take such steps as it deems necessary to ascertain promptly whether the form of prospectus transmitted for filing under Rule 424(b) was received for filing by the Commission and, in the event that it was not, it will promptly file such prospectus; and will file promptly all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of the Prospectus and for so long as the delivery of a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) under the Securities Act) is required in connection with the offering or sale of the Shares. The Company will make commercially reasonable efforts to prevent the issuance of any stop order and, if any stop order is issued, to obtain the lifting thereof at the earliest possible moment.

(b) The Company will give the Underwriters notice of its intention to file or prepare any amendment to the Registration Statement, or any amendment, supplement or revision to the Prospectus, or any Issuer Free Writing Prospectus, will furnish the Underwriters with copies of any such documents a reasonable amount of time prior to such proposed filing or use, as the case may be, and will not file or use any such document to which the Underwriters or counsel for the Underwriters shall reasonably object.

(c) The Company will use its commercially reasonable efforts to qualify the Shares for offering and sale under the securities laws of each such jurisdictions as the Underwriters, through the Representatives, may reasonably request and to comply with such laws so as to permit the continuance of sales and dealings therein in such jurisdictions for as long as may be necessary to complete the distribution of the Shares, provided that nothing in this Section 4(c) shall require the Company to qualify as a foreign corporation in any jurisdiction in which it is not already so qualified, or to file a general consent to service of process in any jurisdiction.

(d) Upon written request, the Company will furnish or deliver to the Representatives, without charge, two signed copies of the Registration Statement as originally filed and of each amendment to the Registration Statement (including exhibits filed therewith or incorporated by reference therein) and signed copies of all consents and certificates of experts, and will also, upon your request, deliver to the Representatives, without charge, a conformed copy of the Registration Statement as originally filed and of each amendment thereto (without exhibits) for each of the Underwriters. The copies of the Registration Statement and each amendment thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval system ("EDGAR"), except to the extent permitted by Regulation S-T.

(e) The Company has delivered to each Underwriter, without charge, as many written and electronic copies of each Preliminary Prospectus and any document incorporated by reference in the Prospectus (excluding exhibits thereto) as such Underwriter reasonably requested, and the Company hereby consents to the use of such copies for purposes permitted by the Securities Act. The Company will furnish to each Underwriter promptly, without charge, during the period when the Prospectus is required to be delivered in connection with sales of the Shares under the Securities Act or the Exchange Act or in lieu thereof, the notice referred to in Rule 173(a) under the Securities Act, such number of written and electronic copies of the Prospectus (as amended or supplemented) and any Issuer Free Writing Prospectus as such Underwriter may reasonably request. The Prospectus and any amendments or supplements thereto and any Issuer Free Writing Prospectus furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(f) The Company will comply with the Securities Act and the Rules and Regulations so as to permit the completion of the distribution of the Shares as contemplated in this Agreement and in the Prospectus. If at any time when, in the opinion of counsel for the Underwriters, a prospectus is required to be delivered in connection with sales of the Shares under the Securities Act or the Exchange Act (or in lieu thereof, the notice referred to in Rule 173(a) under the Securities Act), any event shall occur or condition shall exist as a result of which it is necessary, in the opinion of counsel for the Underwriters or for the Company, to amend the Registration Statement or amend or supplement the Prospectus in order that the Prospectus will not include any untrue statements of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it (or in lieu thereof, the notice referred to in Rule 173(a) under the Securities Act) is delivered to a purchaser, or if it shall be necessary, in the opinion of either such counsel, at any such time to amend the Registration Statement or amend or supplement the Prospectus or to file under the Exchange Act any document incorporated by reference in the Prospectus in order to comply with the requirements of the Securities Act and the Exchange Act, as applicable, and the Rules and Regulations and the rules and regulations of the Commission under the Exchange Act, as applicable, the Company will promptly prepare and file with the Commission, subject to Section 4(b), such document as may be necessary to correct such statement or omission or to make the Registration Statement or the Prospectus comply with such requirements, and the Company will furnish to the Underwriters such number of written and electronic copies of such document as each Underwriter may reasonably request. The Company will provide the Representatives with notice of the occurrence of any event during the period specified above that may give rise to the need to amend or supplement the Registration Statement or the Prospectus as provided in the preceding sentence promptly after the occurrence of such event.

(g) The Company will make generally available to its security holders and to the Underwriters an earnings statement or statements of the Company and the Subsidiaries which will satisfy, on a timely basis, the provisions of Section 11(a) of the Securities Act and Rule 158 under the Securities Act;

(h) The Company will use its commercially reasonable efforts to cause the Shares to be listed on NASDAQ within thirty (30) days of the Closing Date and to maintain the listing of the Series A Preferred Stock, including the Shares, on NASDAQ.

(i) The Company will apply the net proceeds from the sale of the Shares in the manner set forth under the caption "Use of Proceeds" in the Prospectus.

(j) During a period of forty-five (45) days from the date of the Prospectus, without the prior written consent of Benchmark, the Company will not (1) sell, offer, contract to sell, pledge, grant any option to purchase or otherwise dispose of, directly or indirectly, any shares of Preferred Stock, or any securities convertible into or exercisable or exchangeable for Preferred Stock, or (2) enter into any swap or other arrangement that transfer to another, in whole or in part, any of the economic consequences of ownership of the Series A Preferred Stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Series A Preferred Stock or such other securities, in cash or otherwise, or (3) file any registration statement with the Commission relating to the offering of any shares of Preferred Stock or any securities convertible into or exercisable or exchangeable for Preferred Stock, except for the offering of the Shares pursuant to this Agreement and the Prospectus.

(k) The Company will prepare a final term sheet containing a description of the Shares, substantially in the form of Annex I hereto, and approved by the Representatives and file such term sheet pursuant to Rule 433(d) of the Rules and Regulations within the time period prescribed by such Rule.

(l) The Company, during the period when the Prospectus is required to be delivered in connection with sales of the Shares under the Securities Act or the Exchange Act (or in lieu thereof, the notice referred to in Rule 173(a) under the Securities Act), will file all documents required to be filed with the Commission pursuant to the Exchange Act within the time periods required by the Exchange Act and the rules and regulations of the Commission thereunder.

(m) The Company will maintain, at its expense, a registrar and transfer agent for the Shares.

(n) If so requested by the Representatives, the Company shall cause to be prepared and delivered, at its expense, to the Representatives an “electronic Prospectus” to be used by the Underwriters in connection with the offering and sale of the Shares. As used herein, the term “**electronic Prospectus**” means a form of the most recent Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus, and any amendment or supplement thereto, that meets each of the following conditions: (i) it shall be encoded in an electronic format, satisfactory to the Representatives, that may be transmitted electronically by the Representatives and the other Underwriters to offerees and purchasers of the Shares, (ii) it shall disclose the same information as such paper Preliminary Prospectus, Issuer Free Writing Prospectus or the Prospectus, as the case may be; and (iii) it shall be in or convertible into a paper format or an electronic format, satisfactory to the Representatives, that will allow investors to store and have continuously ready access to such Preliminary Prospectus, Issuer Free Writing Prospectus or the Prospectus at any future time, without charge to investors (other than any fee charged for subscription to the Internet generally). The Company hereby confirms that, if so requested by the Representatives, it has included or will include in the Prospectus filed with the Commission an undertaking that, upon receipt of a request by an investor or his or her representative, the Company shall transmit or cause to be transmitted promptly, without charge, a paper copy of such paper Preliminary Prospectus, Issuer Free Writing Prospectus or the Prospectus to such investor or representative.

(o) The Company will not take, directly or indirectly, any action designed to cause or result in, or which might reasonably be expected to constitute the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares in violation of any law, rule or regulation.

(p) Provided that the Firm Securities are sold in accordance with the terms of this Agreement, Benchmark shall have a right of first refusal (the “Right of First Refusal”), for a period of six (6) months from the commencement of sales of the offering, to act as sole and exclusive investment banker, sole and exclusive book-runner, sole and exclusive financial advisor, sole and exclusive underwriter and/or sole and exclusive placement agent, at Benchmark’s sole and exclusive discretion, for each and every future public and private offering of Series A Preferred Stock (each, a “Subject Transaction”), during such six (6) month period, of the Company, or any successor to or subsidiary of the Company, on terms and conditions customary to Benchmark for such Subject Transactions. For the avoidance of any doubt, the Company shall not retain, engage or solicit any additional investment banker, book-runner, financial advisor, underwriter and/or placement agent in a Subject Transaction for which Benchmark has exercised its Right of First Refusal without the express written consent of Benchmark. Benchmark shall have the sole right to determine whether or not any other broker dealer shall have the right to participate in a Subject Transaction and the economic terms of any such participation. For the avoidance of any doubt, such Right of First Refusal does not extend to (i) mergers, acquisitions, joint ventures, licensing arrangements or any other similar non-capital raising transactions that may or may not involve a broker or similar finder, (ii) sales of Series A Preferred Stock under the Company’s existing at the market sales program, or (iii) sales which would be captured under the terms of the Company’s engagement letter with Dawson James Securities, Inc.

The Company shall notify Benchmark of its intention to pursue a Subject Transaction, including the material terms thereof, by providing written notice thereof by registered mail or overnight courier service addressed to Benchmark. If Benchmark fails to exercise its Right of First Refusal with respect to any Subject Transaction within ten (10) Business Days after the mailing of such written notice, then Benchmark shall have no further claim or right with respect to the Subject Transaction. Benchmark may elect, in its sole and absolute discretion, not to exercise its Right of First Refusal with respect to any Subject Transaction; provided that any such election by Benchmark shall not adversely affect Benchmark’s Right of First Refusal with respect to such Subject Transaction or any other Subject Transaction during the six (6) month period agreed to above. If Benchmark does not elect to exercise the Right of First Refusal and the material terms of the Subject Transaction are subsequently materially modified as to scope and nature, then the Company will resubmit the proposed modified terms of the Subject Transaction in writing to Benchmark, and Benchmark shall have ten (10) Business Days after receipt of such written notice to advise the Company of its election to participate in the proposed transaction.

5.

(a) The Company represents and agrees that, without the prior consent of the Representatives, it has not made and will not make any offer relating to the Shares that would constitute a “free writing prospectus” as defined in Rule 405 under the Securities Act; each Underwriter represents and agrees that, without the prior consent of the Company and the Representatives, it has not made and will not make any offer relating to the Shares that would constitute a free writing prospectus; any such free writing prospectus the use of which has been consented to by the Company and the Representatives is listed on Schedule II hereto;

(b) The Company has complied and will comply with the requirements of Rule 433 under the Securities Act applicable to any Issuer Free Writing Prospectus, including timely filing with the Commission or retention where required and legending; the Company represents that it has satisfied and agrees that it will satisfy the conditions under Rule 433 under the Securities Act to avoid a requirement to file with the Commission any electronic road show;

(c) The Company agrees that if at any time following issuance of an Issuer Free Writing Prospectus any event occurred or occurs as a result of which such Issuer Free Writing Prospectus would conflict with the information in the Registration Statement, Pricing Disclosure Package or the Prospectus or would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in light of the circumstances then prevailing, not misleading, the Company will give prompt notice thereof to the Representatives and, if requested by the Representatives, will prepare and furnish without charge to each Underwriter an Issuer Free Writing Prospectus or other document which will correct such conflict, statement or omission; *provided, however*, that this representation and warranty shall not apply to any statements or omissions in an Issuer Free Writing Prospectus made in reliance upon and in strict conformity with information furnished in writing to the Company by or on behalf of such Underwriter through the Representatives expressly for use therein, it being understood and agreed that the only such information provided by any Underwriter is that described as such in Section 8(b) of this Agreement.

6. **Expenses.** The Company will pay or cause to be paid all expenses incident to the performance of its obligations under this Agreement, including (i) the preparation, printing and filing of the Registration Statement (including financial statements and exhibits) as originally filed and each amendment thereto, (ii) the preparation, printing and delivery to the Underwriters of copies of the Preliminary Prospectus, each Issuer Free Writing Prospectus and the Prospectus and any amendments or supplements thereto or any document incorporate by reference therein and any costs associated with electronic delivery of any of the foregoing by the Underwriters to investors, (iii) any preparation, issuance and delivery of certificates for the Shares to the Underwriters, including any unit or other transfer taxes and any stamp or other duties payable upon the sale, issuance or delivery of the Shares to the Underwriters, (iv) the fees and disbursements of the Company’s counsel, accountants and other advisors, (v) the fees and expenses of any transfer agent or registrar for the Shares, (vi) the costs and expenses of the Company relating to investor presentations on any “road show” undertaken in connection with the marketing of the Shares, including without limitation, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in connection with the road show presentations, travel and lodging expenses of the representatives and officers of the Company and any such consultants, and the cost of aircraft and other transportation chartered in connection with the road show, except that the lodging, airfare (except if the Company charters a flight in which case employees of the Underwriters ride on such charter without charge), and incidental expenses of employees of the Underwriters shall be the responsibility of the Underwriters, (vii) the filing fees incurred in connection with, the review by FINRA of the terms of the sale of the Shares, (viii) the fees and expenses incurred in connection with the listing of the Shares on the NASDAQ, and (ix) other reasonable, documented, out-of-pocket expenses incurred by the Underwriters in connection with the offering of the Shares and other transactions contemplated by this Agreement, up to an aggregate of \$70,000 (contingent upon the Underwriters purchase of the Firm Shares as of the Closing Date). Should the Underwriters fail to purchase the Firm Shares as of the Closing Date, the reimbursement of expenses by the Company will be limited to \$25,000, in addition to the \$25,000 deposit previously paid by the Company to the Representatives.

7. **Conditions of Underwriter's Obligations.** The several obligations of the Underwriters hereunder to purchase the Shares on the Closing Date or each Option Closing Date, as the case may be, are subject to the performance by the Company of its obligations hereunder and to the following additional conditions:

(a) The Prospectus shall have been filed with the Commission pursuant to Rule 424(b) under the Securities Act within the applicable time period prescribed for such filing by the Rules and Regulations and in accordance with Section 4(a); all material required to be filed by the Company pursuant to Rule 433(d) under the Securities Act shall have been filed with the Commission within the applicable time period prescribed for such filing by Rule 433 under the Securities Act; no stop order suspending the effectiveness of the Registration Statement or any part thereof or the Prospectus or any part thereof or any Issuer Free Writing Prospectus shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission or any state securities commission; and all requests for additional information on the part of the Commission shall have been complied with to your reasonable satisfaction.

(b) The representations and warranties of the Company contained herein are true as of the date hereof and shall be true and correct on and as of the Closing Date or the Option Closing Date, as the case may be, as if made on and as of the Closing Date or the Option Closing Date, as the case may be, and the Company shall have complied with all agreements and all conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date or the Option Closing Date, as the case may be.

(c) (i) Neither the Company nor any Subsidiary shall have sustained since the date of the latest audited financial statements included or incorporated by reference in Pricing Disclosure Package any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in Pricing Disclosure Package, and (ii) since the respective dates as of which information is given in the Registration Statement and the Prospectus, (1) there shall not have been any change in the capital stock or long-term debt of the Company or any Subsidiary or (2) there shall not have been any material adverse change in or affecting the general affairs, business, prospects, management, financial position, shareholders' equity or results of operations of the Company and the Subsidiaries, considered as one enterprise, the effect of which, in any such case described in clause (i) or (ii), is so material and adverse as to make it impracticable or inadvisable to proceed with the public offering or the delivery of the Shares being delivered on the Closing Date or the Option Closing Date, as the case may be, on the terms and in the manner contemplated in Pricing Disclosure Package.

(d) The Underwriters shall have received on and as of the Closing Date or the Option Closing Date, as the case may be, a certificate of the Chief Executive Officer and the Chief Financial Officer of the Company, satisfactory to the Underwriters, to the effect that (1) the representations and warranties of the Company contained herein are true and correct on and as of the Closing Date or the Option Closing Date, as the case may be, as if made on and as of the Closing Date or the Option Closing Date, as the case may be, and that the Company has complied with all agreements and all conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date or the Option Closing Date, as the case may be, (2) none of the situations set forth in clause (i) or (ii) of Section 7(c) shall have occurred and (3) no stop order suspending the effectiveness of the Registration Statement has been issued and to the knowledge of the Company, no proceedings for that purpose have been instituted or are pending or contemplated by the Commission.

(e) On the Closing Date or the Option Closing Date, as the case may be, Alston & Bird LLP, counsel for the Company, shall have furnished to the Underwriters their favorable written opinion, dated the Closing Date or the Option Closing Date, as the case may be, in form and substance satisfactory to the Representatives, to the effect set forth in Exhibit A hereto and to such further effect as counsel for the Underwriters may reasonably request.

(f) On the Closing Date or the Option Closing Date, as the case may be, Alston & Bird LLP, intellectual property counsel for the Company, shall have furnished to the Underwriters their favorable written intellectual property opinion, dated the Closing Date or the Option Closing Date, as the case may be, in form and substance satisfactory to the Representatives and their counsel.

(g) On the date hereof, BDO shall have furnished to the Underwriters a letter, dated the date hereof, in form and substance satisfactory to the Underwriters, containing statements and information of the type customarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in the Registration Statement and the Prospectus.

(h) On the Closing Date and each Option Closing Date, as the case may be, the Underwriters shall have received from BDO a letter, dated the Closing Date and each such Option Closing Date, as the case may be, to the effect that they reaffirm the statements made in the letter or letters furnished pursuant to Section 7(g), except that the specified date referred to shall be a date not more than three business days prior to the Closing Date or such Option Closing Date, as the case may be.

(i) On the Closing Date or the Option Closing Date, as the case may be, Duane Morris LLP, counsel for the Underwriters, shall have furnished to the Underwriters their favorable opinion dated the Closing Date or the Option Closing Date, as the case may be, with respect to the due authorization and valid issuance of the Shares, the Registration Statement, the Prospectus and other related matters as the Underwriters may reasonably request, and such counsel shall have received such papers and information as they may reasonably request to enable them to pass upon such matters.

(j) FINRA shall have raised no objection with respect to the fairness and reasonableness of the underwriting terms and conditions.

(k) The Certificate of Designations of Rights and Preferences filed with the Secretary of State of the State of Delaware on November 7, 2017, complies with all applicable requirements of the DGCL and remains in full force and effect.

(l) Subsequent to the execution and delivery of this Agreement and prior to the Closing Date, the Company shall have submitted an application to NASDAQ to list the Shares on NASDAQ.

(m) On or prior to the Closing Date and each Option Closing Date, as the case may be, the Company shall have furnished to the Underwriters such further information, certificates and documents as the Underwriters shall reasonably request.

(n) On or after the Applicable Time there shall not have occurred any of the following: (i) a suspension or material limitation in trading in securities generally on the New York Stock Exchange or the NASDAQ; (ii) a suspension or material limitation in trading in the Company's securities on the NASDAQ; (iii) a general moratorium on commercial banking activities declared by any of Federal or New York State authorities or a material disruption in commercial banking or securities settlement or clearance services in the United States; (iv) the outbreak or escalation of hostilities involving the United States or the declaration by the United States of a national emergency or war; or (v) the occurrence of any other calamity or crisis or any change in financial, political or economic conditions in the United States or elsewhere, if the effect of any such event specified in clause (iv) or (v) makes it impracticable or inadvisable to proceed with the public offering or the delivery of the Shares being delivered on the Closing Date or Option Closing Date, as the case may be, on the terms and in the manner contemplated in the Prospectus.

If any condition specified in this Section 7 shall not have been fulfilled when and as required to be fulfilled, this Agreement may be terminated, subject to the provisions of Section 10, by the Representatives by notice to the Company at any time at or prior to the Closing Date or Option Closing Date, as the case may be, and such termination shall be without liability of any party to any other party, except as provided in Section 10.

## 8. Indemnification

(a) The Company agrees to indemnify and hold harmless each Underwriter and each of their directors, officers, employees, agents and representatives and each person, if any, who controls any Underwriter within the meaning of Section 15 of the Securities Act or Section 20(a) of the Exchange Act, against any and all losses, liabilities, claims, damages and expenses whatsoever as incurred (including without limitation, reasonable attorneys' fees and any and all reasonable expenses whatsoever incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, and any and all amounts paid in settlement of any claim or litigation), joint or several, to which they or any of them may become subject under the Securities Act, the Exchange Act or otherwise, insofar as such losses, liabilities, claims, damages or expenses (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, or any post-effective amendment thereof, any Preliminary Prospectus, Pricing Disclosure Package or the Prospectus, or in any supplement thereto or amendment thereof, any Issuer Free Writing Prospectus or any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Securities Act, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading; *provided, however*, that the Company will not be liable in any such case to the extent that any such loss, liability, claim, damage or expense arises out of or is based upon any such untrue statement or alleged untrue statement, as originally filed or any amendment thereof, the Registration Statement, or any post-effective amendment thereof, any Preliminary Prospectus, Pricing Disclosure Package or the Prospectus, or in any supplement thereto or amendment thereof or any Issuer Free Writing Prospectus in reliance upon and in strict conformity with written information furnished to the Company by or on behalf of any Underwriter through the Representatives expressly for use therein, it being understood and agreed that the only such information furnished by any Underwriter is the information described as such in Section 8(b) of this Agreement.

(b) Each Underwriter severally, and not jointly, agrees to indemnify and hold harmless the Company and each of its directors, officers, employees, agents and representatives, and each other person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20(a) of the Exchange Act, against any and all losses, liabilities, claims, damages and expenses whatsoever as incurred (including without limitation, reasonable attorneys' fees and any and all reasonable expenses whatsoever incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, and any and all amounts paid in settlement of any claim or litigation), joint or several, to which they or any of them may become subject under the Securities Act, the Exchange Act or otherwise, insofar as such losses, liabilities, claims, damages or expenses (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, or any post-effective amendment thereof, or any Preliminary Prospectus, Pricing Disclosure Package or the Prospectus, or in any supplement thereto or amendment thereof, any Issuer Free Writing Prospectus, to the extent, but only to the extent, that any such loss, liability, claim, damage or expense arises out of or is based upon any such untrue statement or alleged untrue statement made therein in reliance upon and in strict conformity with written information furnished to the Company by or on behalf of such Underwriter through the Representatives expressly for use therein, it being understood and agreed that the only such information furnished by any Underwriter consists of the following information in the Prospectus furnished on behalf of any Underwriter: (i) the selling concession figure set forth under the caption "Underwriting—Underwriting Discount and Expenses" in Pricing Disclosure Package and (ii) the information provided under the captions "Underwriting—Passive Market Making," "Underwriting—Price Stabilization, Short Positions and Penalty Bids" and "Underwriting—Electronic Distribution" in Pricing Disclosure Package.

(c) Promptly after receipt by an indemnified party under Section 8(a) or 8(b) of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such Section, notify each party against whom indemnification is to be sought in writing of the commencement thereof (but the failure so to notify an indemnifying party shall not relieve it from any liability which it may have under this Section 8). In case any such action is brought against any indemnified party, and it notifies an indemnifying party of the commencement thereof, the indemnifying party will be entitled to participate therein, and jointly with any other indemnifying party similarly notified, to the extent it may elect by written notice delivered to the indemnified party promptly after receiving the aforesaid notice from such indemnified party, to assume the defense thereof with counsel satisfactory to such indemnified party (who shall not, except with the consent of the indemnified party, be counsel to the indemnified party). Notwithstanding the foregoing, the indemnified party or parties shall have the right to employ its or their own counsel in any such case, but the fees and expenses of such counsel shall be at the expense of such indemnified party or parties unless (i) the employment of such counsel shall have been authorized in writing by one of the indemnifying parties in connection with the defense of such action, (ii) the indemnifying parties shall not have employed counsel to have charge of the defense of such action within a reasonable time after notice of commencement of the action, 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 one or all of the indemnifying parties (in which case the indemnifying parties shall not have the right to direct the defense of such action on behalf of the indemnified party or parties), in any of which events such fees and expenses shall be borne by the indemnifying parties. In no event shall the indemnifying parties be liable for fees and expenses of more than one counsel (in addition to any local counsel) separate from their own counsel for all indemnified parties in connection with any one action or separate but similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances, which counsel, in the event of indemnified parties under Section 8(a), shall be selected by the Representatives. No indemnifying party shall, without the written consent of the indemnified party, effect the settlement or compromise of, or consent to the entry of any judgment with respect to, any pending or threatened action or claim in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified party is an actual or potential party to such action or claim) unless such settlement, compromise or judgment (i) includes an unconditional release of the indemnified party from all liability arising out of such action or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any indemnified party.

(d) If the indemnification provided for in this Section 8 is unavailable to or insufficient to hold harmless an indemnified party under Section 8(a) or 8(b) in respect of any losses, liabilities, claims, damages or expenses (or actions in respect thereof) referred to therein, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, liabilities, claims, damages or expenses (or actions in respect thereof) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand and the Underwriter, on the other hand, from the offering of the Shares. If, however, the allocation provided by the immediately preceding sentence is not permitted by applicable law, then each indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company, on the one hand, and the Underwriters, on the other hand, in connection with the statements or omissions which resulted in such losses, liabilities, claims, damages or expenses (or actions in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, from the offering of the Shares shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company, on the one hand, or the Underwriters on the other hand, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 8(d) were determined by *pro rata* allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section 8(d). The amount paid or payable by an indemnified party as a result of the losses, liabilities, claims, damages or expenses (or actions in respect thereof) referred to above in this Section 8(d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 8(d), no Underwriter shall be required to contribute any amount pursuant to this Section 8(d) in excess of the sum of (i) any structuring fees paid to it hereunder and (ii) the underwriting discounts and commissions applicable to the Shares underwritten by it and distributed to the public.

No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations in this Section 8(d) to contribute are several in proportion to their respective underwriting obligations and not joint.

The obligations of the parties to this Agreement contained in this Section 8 are not exclusive and shall not limit any rights or remedies which may otherwise be available to any indemnified party at law or in equity.

**9. Increase in Underwriters' Commitments.** If any Underwriter or Underwriters default in its or their obligations to purchase Shares hereunder on the Closing Date or any Option Closing Date and the aggregate number of Shares that such defaulting Underwriter or Underwriters agreed but failed to purchase does not exceed 10% of the total number of Shares that the Underwriters are obligated to purchase on such Closing Date or Option Closing Date, as the case may be, the Representatives may make arrangements satisfactory to the Company for the purchase of such Shares by other persons, including any of the other Underwriters, but if no such arrangements are made within 36 hours after such default, this Agreement will terminate, subject to the provisions of Section 10, without liability on the part of any non-defaulting Underwriter or the Company, except as provided in Section 10. Nothing herein will relieve a defaulting Underwriter from liability for its default.

In the event of any such default, which does not result in a termination of this Agreement, either the Representatives or the Company shall have the right to postpone the Closing Date or the relevant Option Closing Date, as the case may be, for a period not exceeding seven (7) days in order to effect any required changes in the Registration Statement or Prospectus or in any other documents or arrangements. As used in this Agreement, the term "Underwriter" includes any person substituted for an Underwriter under this Section 9.

**10. Survival.** The respective indemnities, agreements, representations, warranties and other statements of the Company or any of its officers and of the several Underwriters set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation, or statement as to the results thereof, made by or on behalf of any Underwriter or the Company or any of their respective representatives, officers or directors or any controlling person, and will survive delivery of and payment for the Shares. If this Agreement is terminated pursuant to Section 7 or 9 or if for any reason the purchase of any of the Shares by the Underwriters is not consummated, the Company shall remain responsible for the expenses to be paid or reimbursed by it pursuant to Section 6, the respective obligations of the Company and the Underwriters pursuant to Section 8 and the provisions of Sections 10, 11 and 14 shall remain in effect.

**11. Persons Entitled to Benefit of Agreement.** This Agreement shall inure to the benefit of and be binding upon the Company and the Underwriters, the officers and directors of the Company referred to herein, any controlling persons referred to herein and their respective successors and assigns. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any other person, firm or corporation any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision herein contained. No purchaser of Shares from any Underwriter shall be deemed to be a successor or assign by reason merely of such purchase.

**12. Notices.** All notices and other communications hereunder shall be in writing and shall be deemed to have been duly given upon receipt thereof by the recipient if mailed or transmitted by any standard form of telecommunication. Notices to the Underwriters shall be given to the Representatives, The Benchmark Company, LLC, 150 East 58th Street, 17th Floor, New York, New York 10155, Attention: Managing Director, Telephone: 212-312-6700, Email: prospectus@benchmarkcompany.com, and ThinkEquity, 17 State Street, 22nd Floor, New York, NY 10004, Attention: Eric Lord, Email: notices@think-equity.com., with a copy to Duane Morris LLP, 1540 Broadway, New York, NY 10036, Attention: James T. Seery, Telephone: (973) 424-2088, Email: jtseery@duanemorris.com. Notices to the Company shall be given to it at Fortress Biotech, Inc., 2 Gansevoort Street, 9<sup>th</sup> Floor, New York, New York 10014; Attention: Samuel W. Berry, Corporate Counsel, with a copy to Alston & Bird LLP, 90 Park Avenue, New York, NY 10016, Attention: Mark F. McElreath, Telephone: (212) 210-9595, Email: mark.mcelreath@alston.com.

13. **Counterparts.** This Agreement may be signed in counterparts, each of which shall be an original and all of which together shall constitute one and the same instrument.

14. **Governing Law; Construction.** THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK. The Section headings in this Agreement have been inserted as a matter of convenience of reference and are not a part of this Agreement.

15. **Submission to Jurisdiction.** The parties hereby submit to the jurisdiction of and venue in the federal courts located in the City of New York, New York in connection with any dispute related to this Agreement, any transaction contemplated hereby, or any other matter contemplated hereby.

16. **Parties At Interest.** The Agreement herein set forth has been and is made solely for the benefit of the Underwriters, the Company and to the extent provided in Section 8 hereof the controlling Persons, directors and officers referred to in such Section, and their respective successors, assigns, heirs, pursuant representatives and executors and administrators. No other Person, partnership, association or corporation (including a purchaser, as such purchaser, from any of the Underwriters) shall acquire or have any right under or by virtue of this Agreement.

17. **No Advisory or Fiduciary Relationship.** The Company acknowledges and agrees that (a) the purchase and sale of the Shares pursuant to this Agreement, including the determination of the purchase price of the Shares and any related discounts and commissions, is an arm's-length commercial transaction between the Company, on the one hand, and the several Underwriters, on the other hand, (b) in connection therewith and with the process leading to such transaction each Underwriter is and has been acting solely as a principal and not the agent or fiduciary of the Company, or its stockholders, creditors, employees or any other party, (c) no Underwriter has assumed or will assume an advisory or fiduciary responsibility in favor of the Company with respect to the offering contemplated hereby or the process leading thereto (irrespective of whether such Underwriter has advised or is currently advising the Company on other matters) and no Underwriter has any obligation to the Company with respect to the offering contemplated hereby except the obligations expressly set forth in this Agreement, (d) the Underwriters and their respective affiliates may be engaged in a broad range of transactions that involve interests that differ from those of each of the Company, and (e) the Underwriters have not provided any legal, accounting, regulatory or tax advice with respect to the offering contemplated hereby and the Company has consulted its own respective legal, accounting, regulatory and tax advisors to the extent it deemed appropriate.

18. **Research Analyst Independence.** The Company acknowledges that the Underwriters' research analysts and research departments are required to be independent from their respective investment banking divisions and are subject to certain regulations and internal policies, and that such Underwriters' research analysts may hold views and make statements or investment recommendations and/or publish research reports with respect to the Company and/or the offering that differ from the views of their respective investment banking divisions. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against the Underwriters with respect to any conflict of interest that may arise from the fact that the views expressed by their independent research analysts and research departments may be different from or inconsistent with the views or advice communicated to the Company by such Underwriter's investment banking divisions.

19. **Tax Disclosure.** Notwithstanding anything herein to the contrary, the Company is authorized to disclose to any persons the U.S. federal and state income tax treatment and tax structure of the potential transaction and all materials of any kind (including tax opinions and other tax analyses) provided to the Company relating to that treatment and structure, without the Underwriters imposing any limitation of any kind. However, any information relating to the tax treatment and tax structure shall remain confidential (and the foregoing sentence shall not apply) to the extent necessary to enable any person to comply with securities laws. For this purpose, "tax structure" is limited to any facts that may be relevant to that treatment.

20. **Integration.** This Agreement supersedes all prior agreements and understandings (whether written or oral) between the Company and the Underwriters, or any of them, with respect to the subject matter hereof

21. **RIGHT TO TRIAL BY JURY.** Each of the Company and the Underwriters hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

*[Signature Pages Follow]*

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

Very truly yours,

**FORTRESS BIOTECH, INC.**

By: /s/ Lindsay A. Rosenwald, M.D.

Name: Lindsay A. Rosenwald, M.D.

Title: President & Chief Executive Officer

*Signature Page to Underwriting Agreement (Series A Preferred Stock)*

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Accepted and agreed to as of the date first  
above written, on behalf of themselves and as  
Representatives of the other Underwriters named in Schedule I

**THE BENCHMARK COMPANY LLC**

By: /s/ John J. Borer III  
Name: John J. Borer III  
Title: Senior Managing Director

**THINKEQUITY, A DIVISION OF FORDHAM FINANCIAL MANAGEMENT**

By: /s/ Eric Lord  
Name: Eric Lord  
Title: Head of Investment Banking

*Signature Page to Underwriting Agreement (Series A Preferred Stock)*

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SCHEDULE I

Underwriter	Number of Firm Shares To Be Purchased
The Benchmark Company LLC	118,125
ThinkEquity, A division of Fordham Financial Management	118,125
Dawson James Securities, Inc.	26,250
<b>Total:</b>	<b>262,500</b>

Schedule I

**SCHEDULE II**  
**ISSUER FREE WRITING PROSPECTUS**

1. The Pricing Term Sheet set forth in Annex I.

**PRICING INFORMATION**

Number of Shares: 262,500

Public Offering Price for Shares: \$20.00

*Schedule II*

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### **SCHEDULE III**

#### **LIST OF MATERIALLY ACTIVE SUBSIDIARIES**

Subsidiaries of Fortress Biotech, Inc. with jurisdiction of incorporation or formation:

Avenue Therapeutics, Inc. (Delaware)  
Checkpoint Therapeutics, Inc. (Delaware)  
Mustang Bio, Inc. (Delaware)  
Aevitas Therapeutics, Inc. (Delaware)  
Caelum Biosciences, Inc. (Delaware)  
Journey Medical Corporation (Delaware)  
Cellvation, Inc. (Delaware)  
Cyprium Therapeutics, Inc. (Delaware)  
Helocyte, Inc., formerly DiaVax Biosciences, Inc. (Delaware)

*Schedule III*

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ANNEX I

FREE WRITING PROSPECTUS  
Filed Pursuant to Rule 433  
Registration No. 333-226089  
November 25, 2019

Final Pricing Term Sheet

FORTRESS BIOTECH, INC.

9.375% Series A Cumulative Redeemable Perpetual Preferred Shares  
(Liquidation Preference \$25.00 per Share)

<b>Issuer:</b>	Fortress Biotech, Inc.
<b>Securities Offered:</b>	9.375% Series A Cumulative Redeemable Perpetual Preferred Stock (“Series A Preferred Stock”).
<b>Number of Shares:</b>	262,500 shares of Series A Preferred Stock.
<b>Number of Option Shares:</b>	39,375 shares of Series A Preferred Stock.
<b>Trade Date:</b>	November 26, 2019.
<b>Settlement and Delivery Date:</b>	November 29, 2019
<b>Public Offering Price:</b>	\$20.00 per share of Series A Preferred Stock; \$5,250,000 total (assuming no exercise of the underwriters’ option to purchase additional shares of Series A Preferred Stock).
<b>Underwriting Discount:</b>	\$1.60 per share; \$420,000 total (assuming no exercise of the underwriters’ option to purchase additional shares of Series A Preferred Stock).
<b>Maturity Date:</b>	Perpetual (unless redeemed by Issuer on or after December 15, 2022 or in connection with a change of control).
<b>Dividend Rate:</b>	9.375% per annum of the \$25.00 liquidation preference per share (equivalent to \$2.34375 per annum per share).
<b>Dividend Payment Date:</b>	Dividends on the Series A Preferred Stock shall accrue daily and be cumulative from, and including, the date of original issue and shall be payable quarterly on every March 31, June 30, September 30 and December 31 (each such payment date, a “ <b>Dividend Payment Date</b> ,” and each such quarterly period, a “ <b>Dividend Period</b> ”); provided that if any Dividend Payment Date is not a Business Day, then the dividend which would otherwise have been payable on that Dividend Payment Date may be paid on the next succeeding Business Day, and no interest, additional dividends or other sums will accrue on the amount so payable for the period from and after that Dividend Payment Date to that next succeeding Business Day. The first dividend to be paid on the Series A Preferred Stock to be sold in this offering is payable on December 31, 2019 in the amount of \$0.5850375 per share of Series A Preferred Stock to the persons who are the holders of record of the Series A Preferred Stock at the close of business on December 15, 2019.
<b>Liquidation Preference:</b>	\$25.00 per share of Series A Preferred Stock, plus accumulated and unpaid dividends.
<b>Optional Redemption Date:</b>	On and after December 15, 2022, for cash at a redemption price of \$25.00 per share of Series A Preferred Stock, plus any accumulated and unpaid dividends thereon to, but not including, the date fixed for redemption.
<b>Special Optional Redemption:</b>	Upon the occurrence of a Change of Control, the Issuer may, at its option, upon not less than thirty (30) days nor more than sixty (60) days’ written notice, redeem the Series A Preferred Stock, in whole or in part, within one hundred twenty (120) days after the first date on which such Change of Control occurred, for cash at a redemption price of \$25.00 per share, plus any accumulated and unpaid dividends thereon to, but not including, the date fixed for redemption. If, prior to the Change of Control Conversion Date, the Issuer provided notice of its election to redeem some or all of the shares of Series A Preferred Stock (whether pursuant to the Issuer’s optional redemption right described above or this special optional redemption right), the holders of shares of Series A Preferred Stock will not have the Change of Control Conversion Right with respect to the shares called for redemption. If the Issuer elects to redeem any shares of the Series A Preferred Stock as described in this paragraph, it may use any available cash to pay the redemption price.

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**Limited Conversion Rights Upon a Change of Control:**

Upon the occurrence of a Change of Control, each holder of shares of Series A Preferred Stock will have the right (unless, prior to the Change of Control Conversion Date, the Issuer has provided or provides irrevocable notice of its election to redeem the Series A Preferred Stock, in which case such holder will only have the right with respect to the shares of Series A Preferred Stock not called for redemption (unless the Issuer defaults in the payment of the redemption price and accumulated and unpaid dividends in which case such holder will again have a conversion right with respect to the shares of Series A Preferred Stock subject to such default in payment)) to convert some or all of the shares of Series A Preferred Stock held by such holder on the Change of Control Conversion Date into a number of shares of the Issuer's common stock per share of Series A Preferred Stock, which is equal to the lesser of:

- the quotient obtained by dividing (i) the sum of the \$25.00 liquidation preference per share of Series A Preferred Stock plus the amount of any accumulated and unpaid dividends (whether or not declared) to, but not including, the Change of Control Conversion Date (unless the Change of Control Conversion Date is after a record date for a Series A Preferred Stock dividend payment and prior to the corresponding Dividend Payment Date, in which case no additional amount for such accumulated and unpaid dividend will be included in this sum) by (ii) the Common Stock Price; and
- 13.05483 shares of common stock (the '**Share Cap**'), subject to certain adjustments described in the prospectus supplement. The Share Cap was derived by dividing the \$25.00 liquidation preference by \$1.915 (50% of the last sale price of our common stock as reported on the NASDAQ on November 6, 2017).

**CUSIP/ISIN:**

34960Q 208/US34960Q2084

**Lead Manager and Joint Bookrunner:**

The Benchmark Company LLC  
ThinkEquity, a division of Fordham Financial Management

**Joint Bookrunners:**

Dawson James Securities, Inc.

The Issuer has filed a registration statement (including a base prospectus dated July 23, 2019) and a preliminary prospectus supplement, dated November 12, 2019 with the SEC for the offering to which this communication relates. Before you invest, you should read the prospectus in that registration statement and the preliminary prospectus supplement and other documents the issuer has filed with the SEC for more complete information about the issuer and this offering. You may get these documents for free by visiting EDGAR on the SEC's website at [www.sec.gov](http://www.sec.gov). Alternatively, the issuer, any underwriter or any dealer participating in the offering will arrange to send you the prospectus and related preliminary prospectus supplement if you request them from The Benchmark Company LLC by calling 212-312-6700 or ThinkEquity, a division of Fordham Financial Management, Inc. by calling 877-436-3673.

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## EXHIBIT A

### FORM OF OPINION OF ALSTON & BIRD LLP

1. The Company and its Subsidiaries are corporations validly existing in good standing under the laws of the State of Delaware.
  2. The Company and its Subsidiaries are duly qualified to do business as a foreign corporation in each jurisdiction in which the Company and its Subsidiaries own any material property or conduct any material business or in which the failure to be qualified as a foreign corporation would have a Material Adverse Effect.
  3. The Company has the corporate power to own, lease and operate its properties and conduct its business as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus.
  4. The execution and delivery by the Company of, and the performance by the Company of its obligations under, the Underwriting Agreement has been duly authorized by all necessary corporate action on the part of the Company.
  5. The Shares, when issued and delivered by the Company in accordance with the terms of the Underwriting Agreement against payment of the consideration set forth therein, will be duly authorized, validly issued, fully paid and nonassessable.
  6. The issuance and sale of the Shares by the Company is not subject to preemptive or other similar rights arising under the Amended & Restated Certificate of Incorporation (the "Certificate of Incorporation") or Second Amended & Restated Bylaws (the "Bylaws") of the Company or under any agreement to which the Company is a party.
  7. The execution, delivery and performance of the Underwriting Agreement by the Company and the transactions contemplated thereby do not conflict with, or result in any breach of, or constitute a default under (nor constitute an event that with notice, lapse of time or both would constitute a breach of or default under), (i) the Certificate of Incorporation or Bylaws of the Company, (ii) any agreement to which the Company is a party or (iii) any applicable law or, to our knowledge, any decree, judgment or order applicable to the Company (other than state and foreign securities or blue sky laws, as to which we express no opinion), except in the case of clauses (ii) and (iii) for such conflicts, breaches or defaults, which individually or in the aggregate could not be reasonably expected to have a Material Adverse Effect.
  8. No approval, notice to, consent, authorization or order of any court or governmental agency, body or official is required for, the execution and delivery by the Company of the Underwriting Agreement or to issue and sell the Shares, other than as may be required under the Securities Act, the Exchange Act, blue sky laws of any state, the rules of listing on the Nasdaq Capital Market or the rules and regulations of the Financial Industry Regulatory Authority.
  9. To our knowledge, except as described in the Registration Statement, Pricing Disclosure Package and the Prospectus, there are no persons with registration rights or other similar rights to have any securities of the Company registered pursuant to the Registration Statement.
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10. The Registration Statement, as of the date it became effective under the Securities Act and as of the date hereof, the Pricing Disclosure Package, as of its date and the date hereof, and the Prospectus, as of its date and the date hereof (in each case other than the financial statements and schedules and other financial data included or incorporated by reference therein, as to which we express no opinion), complied as to form in all material respects with the requirements of the Securities Act and the rules and regulations of the Commission promulgated thereunder.
11. The Registration Statement has become effective under the Securities Act and, to our knowledge, no stop order suspending the effectiveness of the Registration Statement has been issued under the Securities Act and no proceedings for that purpose have been instituted or are pending or threatened by the Commission. The Prospectus has been filed in the manner and within the time period required by Rule 424(b) under the Securities Act.
12. The Company is not an “investment company,” as such term is defined in the Investment Company Act of 1940, as amended, (the “1940 Act”) or a company “controlled” by an “investment company” within the meaning of the 1940 Act.
13. The statements under the captions “Description of Series A Preferred Stock,” and “Material U.S. Federal Income Tax Considerations” in the Preliminary Prospectus, Pricing Disclosure Package and the Prospectus insofar as such statements purport to summarize certain provisions of documents and legal matters referred to therein and reviewed by us as described above, fairly summarize such provisions and legal matters in all material respects, subject to the qualifications and assumptions stated therein.

In addition, we participated in conferences with officers and other representatives of the Company, representatives of independent public accountants for the Company at which the contents of the Registration Statement, Pricing Disclosure Package and the Prospectus (including any of the Company’s reports that have been filed with the Commission and are incorporated by reference in the Registration Statement (the “Incorporated Documents”) and related matters were discussed, and although we are not passing upon, and do not assume any responsibility for, the accuracy, completeness or fairness of the statements contained or incorporated by reference in the Registration Statement, Pricing Disclosure Package and the Prospectus (except as and to the extent set forth in Paragraph 12 above) and have not made any independent check or verification thereof, during the course of such participation, nothing has come to our attention that leads us to believe (i) that the Registration Statement, as of its most recent effective date, contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (ii) the Pricing Disclosure Package (including the Incorporated Documents), as of 5:00 p.m., New York city time, on November 25, 2019 (which you have informed us is a time prior to the time of the first sale of the Firm Shares by any Underwriter), insofar as relating to the offering of the Shares, contained an untrue statement of a material fact or omitted to state any material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, or (iii) that the Prospectus (including the Incorporated Documents), as of its date and as of the date hereof, included or includes an untrue statement of a material fact or omitted or omits to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading (it being understood that we express no belief with respect to the financial statements, financial schedules and other financial data included or incorporated by reference in, or excluded from, the Registration Statement, Pricing Disclosure Package or the Prospectus).

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### Fortress Biotech Announces Pricing of Series A Preferred Stock Offering

**New York, NY – November 25, 2019** – Fortress Biotech, Inc. (Common Stock: Nasdaq: FBIO) (Preferred Stock: Nasdaq: FBIOP) (“Fortress”), an innovative biopharmaceutical company focused on identifying, in-licensing and developing high-potential marketed and development-stage drugs and drug candidates, today announced that it has priced an underwritten public offering of 262,500 shares of its 9.375% Series A Cumulative Redeemable Perpetual Preferred Stock at a price of \$20 per share, with expected gross proceeds to Fortress of approximately \$5.3 million. In addition, Fortress has granted the underwriters a 45-day option to purchase up to 39,375 additional shares at the public offering price, less underwriting discounts and commissions. The offering is expected to close on or about November 29, 2019, subject to customary closing conditions.

The Benchmark Company, LLC and ThinkEquity, a division of Fordham Financial Management, Inc. are acting as joint bookrunning managers for the offering. Dawson James Securities, Inc. is acting as co-manager for the offering.

Fortress intends to use the net proceeds from the public offering for its operations, including, but not limited to, general corporate purposes, which may include research and development expenditures, clinical trial expenditures, manufacture and supply of product, and working capital.

The offering is being made by Fortress pursuant to an effective shelf registration statement on Form S-3 (File 333-226089) previously filed with the Securities Exchange Commission (“SEC”). The offering is being made only by means of a written prospectus and related prospectus supplement that form a part of the registration statement. A copy of the final prospectus supplement and accompanying prospectus related to this offering may be obtained from any of the underwriters, including the offices of The Benchmark Company, LLC, Attn: Prospectus Department, 150 E 58th Street, 17th floor, New York, NY 10155, 212-312-6700, Email: [prospectus@benchmarkcompany.com](mailto:prospectus@benchmarkcompany.com), and the offices of ThinkEquity, a division of Fordham Financial Management, Inc., 17 State Street, 22nd Floor, New York, New York 10004, by telephone at (877) 436-3673 or by email at [prospectus@think-equity.com](mailto:prospectus@think-equity.com). You may also obtain these documents for free when they are available by visiting the SEC’s website at [www.sec.gov](http://www.sec.gov).

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

#### About Fortress Biotech

Fortress Biotech, Inc. (“Fortress”) is an innovative biopharmaceutical company focused on identifying, in-licensing and developing high-potential marketed and development-stage drugs and drug candidates. The company has five marketed prescription pharmaceutical products and over 25 programs in development at Fortress, at its majority-owned and majority-controlled partners and at partners it founded and in which it holds significant minority ownership positions. Such product candidates span six large-market therapeutic areas, including oncology, rare diseases and gene therapy, which allow it to create value while mitigating risk for shareholders. Fortress advances its diversified pipeline through a streamlined operating structure that fosters efficient drug development. The Fortress model is driven by a world-class business development team that is focused on leveraging its significant biopharmaceutical industry expertise to further expand the company’s portfolio of product opportunities. Fortress has established partnerships with some of the world’s leading academic research institutions and biopharmaceutical companies to maximize each opportunity to its full potential, including Alexion Pharmaceuticals, Inc., City of Hope, Fred Hutchinson Cancer Research Center, InvaGen Pharmaceuticals Inc. (a subsidiary of Cipla Limited) and St. Jude Children’s Research Hospital.

**Forward-Looking Statements**

This press release may contain “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, as amended. As used below and throughout this press release, the words “we”, “us” and “our” may refer to Fortress individually or together with one or more partner companies, as dictated by context. Such statements include, but are not limited to, any statements relating to our growth strategy and product development programs and any other statements that are not historical facts. Forward-looking statements are based on management’s current expectations and are subject to risks and uncertainties that could negatively affect our business, operating results, financial condition and stock price. Factors that could cause actual results to differ materially from those currently anticipated include: risks relating to our growth strategy; our ability to obtain, perform under and maintain financing and strategic agreements and relationships; risks relating to the results of research and development activities; uncertainties relating to preclinical and clinical testing; risks relating to the timing of starting and completing clinical trials; our dependence on third-party suppliers; our ability to attract, integrate and retain key personnel; the early stage of products under development; our need for substantial additional funds; government regulation; patent and intellectual property matters; competition; as well as other risks described in our SEC filings. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations or any changes in events, conditions or circumstances on which any such statement is based, except as may be required by law. The information contained herein is intended to be reviewed in its totality, and any stipulations, conditions or provisos that apply to a given piece of information in one part of this press release should be read as applying *mutatis mutandis* to every other instance of such information appearing herein.

**Company Contacts:**

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(781) 652-4500  
[ir@fortressbiotech.com](mailto:ir@fortressbiotech.com)

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