

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

**FORM 8-K**

CURRENT REPORT  
PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported): January 6, 2025

**LIXTE BIOTECHNOLOGY HOLDINGS, INC.**

DELAWARE  
(State or other jurisdiction  
of incorporation)

001-39717  
(Commission  
File Number)

20-2903526  
(IRS Employer  
Identification No.)

680 East Colorado Boulevard, Suite 180  
Pasadena, California 91101  
(Address of principal executive offices)

(631) 830-7092  
(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 (See General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act of 1933 (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(e) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of Each Class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock	LIXT	The Nasdaq Stock Market LLC
Warrant to Purchase Common Stock	LIXTW	The Nasdaq Stock Market LLC

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

***At-the-Market Sales Agreement***

On January 6, 2025, Lixte Biotechnology Holdings, Inc. ("we," "our" or the "Company") entered into an At-the-Market Sales Agreement (the "Sales Agreement") with WallachBeth Capital, LLC (the "Agent") pursuant to which we may offer and sell from time to time through the Agent, acting as agent, shares of our common stock, \$0.0001 par value per share, having an aggregate offering price of up to \$1,700,000, subject to the terms and conditions of the Agreement. The issuance and sale, if any, of shares of common stock through the Agent under the Sales Agreement will be made pursuant to the Company's effective shelf registration statement on Form S-3 (File No. 333-278874) (the "Registration Statement") filed with the Securities and Exchange Commission, or "SEC," on April 23, 2024, and declared effective on May 2, 2024, and are described in detail in the related base prospectus, dated April 23, 2024 and prospectus supplement, dated January 6, 2025, included as part of our Registration Statement.

Under the Sales Agreement, the Agent may sell shares of our common stock by any method permitted by law deemed to be an "at-the-market" offering as defined in Rule 415 of the Securities Act of 1933, as amended, including, but not limited to, sales made directly on the Nasdaq Capital Market, on any other existing trading market for our common stock or to or through a market maker other than on an exchange or otherwise, in negotiated transactions at market prices prevailing at the time of sale or at prices related to such prevailing market prices, and/or any other method permitted by law. The Agent has agreed in the Sales Agreement to use its commercially reasonable efforts consistent with its respective normal trading and sales practices to sell shares in accordance with our instructions (including any price, time or size limit or other customary parameters or conditions we may impose). Actual sales will depend on a variety of factors to be determined by the Company from time to time, including (among others) market conditions, the trading price of the Company's common stock, capital needs and determinations by the Company of the appropriate sources of funding for the Company. The Company is not obligated to make any sales of common stock under the Sales Agreement and the Company cannot provide any assurances that it will issue any shares pursuant to the Sales Agreement.

The Company intends to use the net proceeds from the offering for working capital and general corporate expenses, including for further development of our lead clinical compound LB-100.

We have agreed to pay the Agent a commission rate of 3.5% of the gross sales price per share of any of our shares of common stock sold through the Agent under the Sales Agreement, and have provided the Agent with customary indemnification and contribution rights. In addition, we have agreed to reimburse certain legal expenses and filing fees incurred by the Agent in connection with the offering pursuant to the Sales Agreement, including fees and expenses of the Agent's legal counsel not to exceed \$50,000, plus certain ongoing disbursements of its legal counsel up to \$5,000 per bring down.

The offering of shares of our common stock pursuant to the Sales Agreement will terminate upon the earliest of (i) the sale of the maximum dollar amount of shares of common stock subject to the Sales Agreement, (ii) the termination of the Sales Agreement by us or the Agent, and (iii) the expiration of the shelf registration statement on Form S-3 (File No. 333-278874) on the third anniversary of the initial effective date of such registration statement.

A copy of the Sales Agreement is filed as Exhibit 10.1 to this Current Report on Form 8-K (this "Report") and is incorporated herein by reference. The description of the Agreement is qualified in its entirety by reference to Exhibit 10.1 to this Report.

This Report, including the exhibits filed herewith, is not an offer to sell or the solicitation of an offer to buy the shares or any other securities of the Company, nor shall there be any offer, solicitation or sale of the shares or any other securities of the Company in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of such state.

A copy of the opinion of TroyGould PC relating to the legality of the shares is filed as Exhibit 5.1 to this Report and is filed with reference to, and is hereby incorporated by reference into, the Registration Statement.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits

We are filing as part of this Report the exhibits listed on the accompanying Index to Exhibits, which information is incorporated herein by reference.

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**SIGNATURES**

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

Date: January 6, 2025

LIXTE BIOTECHNOLOGY HOLDINGS, INC.

By: /s/ BASTIAAN VAN DER BAAN

Bastiaan van der Baan  
President and Chief Executive Officer

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**INDEX TO EXHIBITS**

<b>Exhibit No.</b>	<b>Description</b>
5.1	<a href="#">Opinion Letter of TroyGould PC</a>
10.1	<a href="#">At-the-Market Sales Agreement dated as of January 6, 2025 between Lixte Biotechnology Holdings, Inc. and WallachBeth Capital, LLC</a>
104	Cover Page Interactive Data File (embedded within the Inline XBRL Document)

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TroyGould PC  
1801 Century Park East, Suite 1600  
Los Angeles, California 90067

January 6, 2025

Lixte Biotechnology Holdings, Inc.  
680 East Colorado Boulevard, Suite 180  
Pasadena, California 91101

Re: Registration Statement on Form S-3; Shares of Common Stock, \$0.0001 par value per share, having an aggregate offering price of up to \$1,700,000

Ladies and Gentlemen:

We have acted as counsel to Lixte Biotechnology Holdings, Inc. a Delaware corporation (the "Company"), in connection with the sale by the Company of shares (the "Shares") of common stock, \$0.0001 par value per share (the "Common Stock") having an aggregate offering price of up to \$1,700,000, pursuant to (i) a registration statement on Form S-3 (the "Registration Statement"), under the Securities Act of 1933, as amended (the "Act"), filed with the Securities and Exchange Commission (the "Commission") on April 23, 2024, (ii) a base prospectus (the "Base Prospectus") and a related prospectus supplement included in the Registration Statement (together with the Base Prospectus, the "Prospectus"), and (iii) an At-the-Market Sales Agreement (the "Sales Agreement"), dated as of January 6, 2025, between the Company and WallachBeth Capital, LLC. This opinion letter is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or the Prospectus, other than as expressly stated herein with respect to the issue of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this opinion letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware and we express no opinion with respect to the applicability thereto, or the effect thereon, of the laws of any other jurisdiction or, in the case of Delaware, any other laws, or as to any matters of municipal law or the laws of any local agencies within any state.

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Subject to the foregoing and the other matters set forth herein, it is our opinion that, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers, upon issuance, delivery and payment therefor in an amount not less than the par value thereof in the circumstances contemplated by the Sales Agreement, the issue and sale of the Shares will have been duly authorized by all necessary corporate action of the Company and such Shares will be validly issued, fully paid and nonassessable.

With your permission, we have made (and are relying upon) the following assumptions, without any independent investigation or inquiry by us, and our opinions expressed above are subject to, and limited and qualified by the effect of, the following assumptions: (1) the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the General Corporation Law of the State of Delaware; (2) upon the issue of any of the Shares, the total number of shares of Common Stock issued and outstanding will not exceed the total number of shares of Common Stock that the Company is then authorized to issue under its Amended Certificate of Incorporation; (3) all representations, warranties, and other statements as to factual matters that are contained in the documents that we reviewed in connection with this opinion letter are accurate and complete, and all corporate records furnished to us by the Company are accurate and complete; and (4) with respect to documents that we reviewed in connection with this opinion letter, all documents submitted to us as originals are authentic and complete; all documents submitted to us as certified, electronic, facsimile, or photostatic copies conform to the originals of such documents, and such original documents are authentic and complete; the signatures on all documents are genuine; and all natural persons who have executed any of the documents have the legal capacity to do so.

This opinion letter is rendered to you in connection with the Registration Statement and may not be relied upon by you for any other purpose. We consent to your filing this opinion letter as Exhibit 5.1 to the Company's Current Report on Form 8-K filed with the Commission on or about the date hereof and to the reference to our firm contained in the Registration Statement and the Prospectus under the heading "Legal Matters." In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

TROYGOULD PC

## LIXTE BIOTECHNOLOGY HOLDINGS, INC.

Common Stock  
(par value \$0.0001 per share)

## At-The-Market Issuance Sales Agreement

January 6, 2025

WallachBeth Capital LLC  
185 Hudson St  
Jersey City, NJ 07302  
Ladies and Gentlemen:

LIXTE Biotechnology Holdings, Inc., a Delaware corporation (the “Company”), confirms its agreement (this “Agreement”) with WallachBeth Capital LLC (the “Agent”), as follows:

1. Issuance and Sale of Shares. The Company agrees to issue and sell through or to the Agent, shares (the “Placement Shares”) of the Company’s common stock, par value \$0.0001 per share (the “Common Stock”), from time to time during the term of this Agreement and on the terms set forth in this Agreement; *provided however*, that in no event will the Company issue or sell through or to the Agent such dollar amount of Placement Shares that would exceed \$1,700,000 in the aggregate, subject to General Instruction I.B.6 of Form S-3 (the “Maximum Amount”). Notwithstanding anything to the contrary contained herein, the parties hereto agree that compliance with the limitations set forth in this Section 1 on the amount of Placement Shares issued and sold under this Agreement will be the sole responsibility of the Company and that the Agent will have no obligation in connection with such compliance provided the Agent follows the trading instructions provided by the Company pursuant to any Placement Notice in all material respects. The issuance and sale of Placement Shares through or to the Agent will be effected pursuant to the Registration Statement (as defined below) filed by the Company and declared effective by the U.S. Securities and Exchange Commission (the “SEC”), although nothing in this Agreement will be construed as requiring the Company to use the Registration Statement to issue Common Stock. Certain capitalized terms used in this Agreement have the meanings ascribed to them in Section 25. The Company acknowledges and agrees that compliance with General Instruction I.B.6 of Form S-3 and other applicable limitations is the sole responsibility of the Company, and the Agent shall have no liability for sales exceeding authorized amounts, provided the Agent follows instructions provided by the Company in all material respects.

The Company has filed with the SEC, in accordance with the provisions of the Securities Act of 1933, as amended (the “Securities Act”), and the rules and regulations thereunder (the “Securities Act Regulations”), a registration statement on Form S-3 (File No. 333-278874), including a base prospectus, relating to certain securities, including the Placement Shares, to be issued from time to time by the Company, and which incorporates by reference documents that the Company has filed or will file in accordance with the provisions of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and the rules and regulations thereunder. The Company has prepared or will prepare a prospectus supplement specifically relating to the Placement Shares (the “Prospectus Supplement”) to the base prospectus included as part of the registration statement. The Company will furnish to the Agent, for use by them, copies of the prospectus included as part of the registration statement, as supplemented by the Prospectus Supplement. Except when the context otherwise requires, such registration statement, including all documents filed as part thereof or incorporated by reference therein, and including any information contained in a Prospectus (as defined below) subsequently filed with the SEC pursuant to Rule 424(b) under the Securities Act Regulations or deemed to be a part of the registration statement pursuant to Rule 430B of the Securities Act Regulations, is herein called the “Registration Statement.” The base prospectus, including all documents incorporated therein by reference, included in the Registration Statement, as it may be supplemented by the Prospectus Supplement, in the form in which the prospectus and/or Prospectus Supplement have most recently been filed by the Company with the SEC pursuant to Rule 424(b) under the Securities Act Regulations is herein called the “Prospectus.” Any reference herein to the Registration Statement, the Prospectus, or any amendment or supplement thereto will be deemed to refer to and include the documents incorporated by reference therein, and any reference herein to the terms “amend,” “amendment,” or “supplement” respecting the Registration Statement or the Prospectus will be deemed to refer to and include the filing of any document with the SEC deemed to be incorporated by reference therein, including in each such case filings made after the execution hereof (any such documents, collectively, the “Incorporated Documents”).

For purposes of this Agreement, all references to the Registration Statement, the Prospectus, or to any amendment or supplement thereto will be deemed to include the most recent copy filed with the SEC pursuant to its Electronic Data Gathering Analysis and Retrieval System, or if applicable, the Interactive Data Electronic Application system when used by the SEC (collectively, “EDGAR”).

2. Placements. Each time that the Company wishes to issue and sell Placement Shares hereunder (each, a “Placement”), it will notify the Agent by email notice (or other method mutually agreed to in writing by the parties) of the number of Placement Shares, the period during which sales are requested to be made, any limitation on the number of Placement Shares that may be sold in any one day, and any minimum price below which sales may not be made (a “Placement Notice”), the form of which is attached hereto as Schedule 1. The Placement Notice will originate from any of the individuals from the Company set forth on Schedule 3 (with a copy to each of the other individuals from the Company listed on the schedule) and will be addressed to each of the individuals from the Agent that are set forth on Schedule 3, as Schedule 3 may be amended from time to time. The Placement Notice will be effective unless and until: (a) the Agent declines to accept the terms contained therein for any reason, in its sole discretion, which must be evidenced by a written notice to the Company, addressed to the individuals set forth on Schedule 3 within three (3) Business Days after receipt of such Placement Notice; (b) the entire amount of the Placement Shares thereunder have been sold; (c) the Company suspends or terminates the Placement Notice; or (d) the Agreement has been terminated under the provisions of Section 13. The amount of any discount, commission, or other compensation to be paid by the Company to the Agent in connection with the sale of the Placement Shares will be calculated in accordance with the terms set forth in Schedule 2. Neither the Company nor the Agent will have any obligation whatsoever respecting a Placement or any Placement Shares unless and until the Company delivers a Placement Notice to the Agent and the Agent does not decline such Placement Notice pursuant to the terms set forth above, and then only upon the terms specified therein and herein. In the event of a conflict between the terms of Sections 2, 3, and 4 of this Agreement and the terms of a Placement Notice, the terms of the Placement Notice will control.

3. Sale of Placement Shares by the Agent. Subject to the terms and conditions of this Agreement, each Agent, at any time it is an Agent, for the period specified in the Placement Notice, will use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable state and federal laws, rules, and regulations and the rules of the Nasdaq Stock Market (the “Exchange”), to sell the Placement Shares in accordance with the terms of such Placement Notice. The Agent will provide written confirmation to the Company no later than the opening of the Trading Day (as defined below) immediately following the Trading Day on which it has sold Placement Shares hereunder, setting forth the number of Placement Shares sold on such day, the compensation payable by the Company to the Agent pursuant to Section 2 for such sales, and the Net Proceeds (as defined below) payable to the Company, with an itemization of the deductions made by the Agent (as set forth in Section 5(b)) from the gross proceeds that it receives from such sales. Subject to the terms of the Placement Notice, Placement Shares may be sold hereunder by any method permitted by law deemed to be an “at the market” offering as defined in Rule

415(a)(1)(x) and Rule 415(a)(4) of the Securities Act Regulations, including sales made directly on the Exchange or on any other existing trading market for the Common Stock, to or through a market maker or directly to the Placement Agent as principal in negotiated transactions. Subject to the terms of a Placement Notice, the Agent may also sell Placement Shares by any other method permitted by law, including in privately negotiated transactions, with the Company's consent. "Trading Day" means any day on which Common Stock is purchased and sold on the Exchange.

4. Suspension of Sales. The Company or the Agent may, upon notice to the other party in writing (including by email correspondence to each of the individuals of the other party set forth on Schedule 3, if receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice is sent, other than via auto-reply) or by telephone (confirmed immediately by verifiable email correspondence to each of the individuals of the other party set forth on Schedule 3), suspend any sale of Placement Shares; provided, however, that such suspension will not affect or impair any party's obligations respecting any Placement Shares sold hereunder prior to the receipt of such notice. In the event of a dispute regarding the suspension of sales, the parties agree to consult promptly and in good faith to resolve the matter, ensuring that no obligations are impaired. Notwithstanding anything herein to the contrary, the obligations under Section 7(l), 7(m), and 7(n) with respect to delivery of certificates, opinions and comfort letters to the Agent shall not apply while a suspension of sales under this Section 4 is in effect. Each of the parties agrees that no such notice under this Section 4 will be effective against any other party unless it is made to one of the individuals named on Schedule 3 hereto, as such schedule may be amended from time to time.

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#### 5. Sale and Delivery to the Agent; Settlement

(a) Sale of Placement Shares. On the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, upon delivery of a Placement Notice, and unless the sale of the Placement Shares described therein has been declined, suspended, or otherwise terminated in accordance with the terms of this Agreement, each Agent, at any time it is an Agent, for the period specified in the Placement Notice, will use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of the Exchange to sell such Placement Shares up to the amount specified, and otherwise in accordance with the terms of such Placement Notice. The Company acknowledges and agrees that: (i) there can be no assurance that any Agent will be successful in selling Placement Shares; (ii) no Agent will incur any liability or obligation to the Company or any other Person (as defined herein) for a failure to sell Placement Shares for any reason other than a failure by such Agent to use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable law and regulations to sell such Placement Shares as required under this Agreement; and (iii) no Agent will be under any obligation to purchase Placement Shares on a principal basis pursuant to this Agreement, except as otherwise agreed by such Agent and the Company.

(b) Settlement of Placement Shares. Unless otherwise specified in the applicable Placement Notice, settlement for sales of Placement Shares will occur on the second Trading Day (or such earlier day as is industry practice for regular-way trading) following the date on which such sales are made (each, a "Settlement Date"). The Agent shall notify the Company of each sale of Placement Shares no later than opening day following the Trading Day that the Agent sold Placement Shares. The amount of proceeds to be delivered to the Company on a Settlement Date against receipt of the Placement Shares sold (the "Net Proceeds") will be equal to the aggregate sales price received by the Agent, after deduction for the Agent's commission, discount, or other compensation for such sales payable by the Company pursuant to Section 2 hereof.

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(c) Delivery of Placement Shares. Before each Settlement Date, the Company will, or will cause its transfer agent to, electronically transfer an agreed-upon amount of the Placement Shares being sold by crediting the Agent's account or its designee's account (*provided* the Agent shall have given the Company written notice of such designee a reasonable period of time prior to the Settlement Date) at The Depository Trust Company through its Deposit and Withdrawal at Custodian System or by such other means of delivery as may be mutually agreed upon by the parties hereto, which in all cases will be freely tradable, transferable, registered shares in good deliverable form. On each Settlement Date, the Agent will deliver the related Net Proceeds in same-day funds to an account designated by the Company on, or prior to, the Settlement Date. The Agent is not obligated to sell any of the Placement Shares unless they are first deposited in the Agent's account or its designee's account. The Company agrees that if the Company or its transfer agent defaults in its obligation to deliver Placement Shares before a Settlement Date through no fault of the Agent that, in addition to and in no way limiting the rights and obligations set forth in Section 11(a) hereto, it will hold the Agent harmless against any loss, claim, damage, or expense (including reasonable and documented legal fees and expenses) arising out of or in connection with such default by the Company or its transfer agent (if applicable).

(d) Limitations on Offering Size. Under no circumstances will the Company cause or request the offer or sale of any Placement Shares if, after giving effect to the sale of such Placement Shares, the aggregate gross sales proceeds of Placement Shares sold pursuant to this Agreement would exceed the lesser of: (i) together with all sales of Placement Shares under this Agreement, the Maximum Amount; or (ii) the amount authorized from time to time to be issued and sold under this Agreement by the Company's board of directors, a duly authorized committee thereof, or a duly authorized executive committee, and notified to the Agent in writing. Under no circumstances will the Company cause or request the offer or sale of any Placement Shares pursuant to this Agreement at a price lower than the minimum price authorized from time to time by the Company's board of directors, a duly authorized committee thereof, or a duly authorized executive committee, and notified to the Agent in writing.

6. Representations and Warranties of the Company. The Company represents and warrants to, and agrees with, the Agent that as of the date of this Agreement and as of each Applicable Time (as defined below), unless such representation, warranty or agreement specifies a different date or time:

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(a) Registration Statement and Prospectus. The Company and, assuming no act or omission on the part of the Agent that would make such statement untrue, the transactions contemplated by this Agreement meet the requirements for and comply with the conditions for the use of Form S-3 under the Securities Act. The Registration Statement has been filed with the SEC and has been declared effective under the Securities Act. The Prospectus Supplement will name the Agent as the agent in the section entitled "Plan of Distribution." The Company has not received, and has no notice of, any order of the SEC preventing or suspending the use of the Registration Statement or threatening or instituting proceedings for that purpose. The Registration Statement and the offer and sale of Placement Shares as contemplated hereby meet the requirements of Rule 415 under the Securities Act and comply in all material respects with said Rule. Any statutes, regulations, contracts, or other documents that are required to be described in the Registration Statement or the Prospectus or to be filed as exhibits to the Registration Statement have been so described or filed. Copies of the Registration Statement, the Prospectus, and any such amendments or supplements and all documents incorporated by reference therein that were filed with the SEC on or prior to the date of this Agreement have been delivered, or are available through EDGAR, to the Agent and its counsel. The Company has not distributed and, prior to the later to occur of each Settlement Date and completion of the distribution of the Placement Shares, will not distribute any offering material in connection with the offering or sale of the Placement Shares other than the Registration Statement and the Prospectus and any Issuer Free Writing Prospectus (as defined below) to which the Agent has consented, which consent shall not be unreasonably withheld or delayed. The Common Stock is currently listed on the Exchange under the trading symbol "SXPT." Except as disclosed in the Registration Statement, including the Incorporated Documents, the Company has not, in the six months preceding the date hereof, received notice from the Exchange to the effect that the Company is not in compliance with the Exchange's listing requirements. Except as disclosed in the Registration Statement, including the Incorporated Documents, or the Prospectus, the Company has no reason to believe that it will be unable to comply with the Exchange listing requirements.

(b) No Misstatement or Omission. The Registration Statement, when it became effective, and the Prospectus, and any amendment or supplement thereto, on the

date of such Prospectus or amendment or supplement, conformed and will conform in all material respects with the requirements of the Securities Act. At each Settlement Date, the Registration Statement and the Prospectus, as of such date, will conform in all material respects with the requirements of the Securities Act. The Registration Statement, when it became effective, 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 not misleading. The Prospectus and any amendment and supplement thereto, on the date thereof and at each Applicable Time (defined below), did not and will not include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. The documents incorporated by reference in the Prospectus or any Prospectus Supplement did not, and any further documents incorporated by reference therein will not, when filed with the SEC, contain an untrue statement of a material fact or omit to state a material fact required to be stated in such document or necessary to make the statements in such document, in light of the circumstances under which they were made, not misleading. The foregoing will not apply to statements in, or omissions from, any such document made in reliance upon, and in conformity with, information furnished to the Company by the Agent specifically for use in the preparation thereof.

(c) Conformity with Securities Act and Exchange Act. The Incorporated Documents, when such documents were or are filed with the SEC under the Securities Act or the Exchange Act, or became or become effective under the Securities Act, as the case may be, conformed or will conform in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable.

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(d) Financial Information. The consolidated financial statements of the Company included or incorporated by reference in the Registration Statement, the Prospectus, and the Issuer Free Writing Prospectuses, if any, together with the related notes and schedules, compiled as to form in all material respects with applicable accounting requirements and the published rules and regulations of the SEC with respect thereto as in effect as of the time of filing. Such financial statements have been prepared in accordance with generally accepted accounting principles, consistently applied, during the periods involved (except: (i) as may be otherwise indicated in such financial statements or the notes thereto; or (ii) in the case of unaudited interim statements, to the extent they may exclude footnotes or may be condensed or summary statements) and fairly present in all material respects the consolidated financial position of the Company and the Subsidiaries as of the dates indicated and the consolidated results of operations and cash flows of the Company for the periods specified (subject, in the case of unaudited statements, to normal year-end audit adjustments that will not be material, either individually or in the aggregate); the other financial and statistical data respecting the Company and the Subsidiaries contained or incorporated by reference in the Registration Statement, the Prospectus, and the Issuer Free Writing Prospectuses, if any, are accurately and fairly presented and prepared in all material respects 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 or the Prospectus that are not included or incorporated by reference as required; the Company and the Subsidiaries (as defined below) 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 the Prospectus that are required to be described in the Registration Statement or the Prospectus (including exhibits thereto and Incorporated Documents); and all disclosures contained or incorporated by reference in the Registration Statement, the Prospectus, and the Issuer Free Writing Prospectuses, if any, regarding “non-GAAP financial measures” (as such term is defined by the rules and regulations of the SEC) 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.

(e) Conformity with EDGAR Filing. The Prospectus delivered to the Agent for use in connection with the sale of the Placement Shares pursuant to this Agreement will be identical to the versions of the Prospectus created to be transmitted to the SEC for filing via EDGAR, except to the extent permitted by Regulation S-T.

(f) Organization. The Company and each of its Subsidiaries are duly organized, validly existing as a corporation, limited partnership, limited liability company, or other legal entity, and in good standing under the laws of their respective jurisdictions of organization, except where the failure to be in good standing would not, individually or in the aggregate, have a Material Adverse Effect (as defined below) or reasonably be expected to have a Material Adverse Effect. The Company and each of its Subsidiaries are duly 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 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 and the Prospectus, 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 reasonably be expected to have a material adverse effect on the assets, business, operations, earnings, properties, condition (financial or otherwise), prospects, stockholders’ equity, or results of operations of the Company and the Subsidiaries (as defined below) taken as a whole, or prevent or materially interfere with consummation of the transactions contemplated hereby (a “Material Adverse Effect”).

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(g) Subsidiaries. The significant subsidiaries of the Company, as determined pursuant to Rule 1-02(w) of Regulation S-X, are set forth on Schedule 4 (collectively, the “Subsidiaries”). Except as set forth in the Registration Statement and in the Prospectus, the Company owns, directly or indirectly, all of the equity interests of the Subsidiaries free and clear of any material 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.

(h) No Violation or Default. Neither the Company nor any of its Subsidiaries is: (i) in violation of its charter or bylaws 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 any of its Subsidiaries is a party, by which the Company or any of its Subsidiaries is bound, or to which any of the property or assets of the Company or any of its Subsidiaries are subject; or (iii) in violation of any law or statute or any judgment, order, rule, or regulation of any court, arbitrator, or governmental or regulatory authority, 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. Except as described in the Prospectus, the Prospectus Supplement, or the Incorporated Documents, to the Company’s knowledge, no other party under any material contract or other agreement to which it or any of its Subsidiaries is a party is in default in any respect thereunder where such default would reasonably be expected to have a Material Adverse Effect.

(i) No Material Adverse Change. Subsequent to the respective dates as of which information is given in the Registration Statement and the Prospectus (including any Incorporated Documents), 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, financial, condition (financial or otherwise), results of operations, or prospects of the Company and the Subsidiaries taken as a whole; (ii) any transaction that 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 Subsidiary, that is material to the Company and the Subsidiaries taken as a whole; (iv) any material change in the capital stock (other than as a result of the sale of Placement Shares or other than as described in a proxy statement filed on Schedule 14A or a Registration Statement on Form S-4 and otherwise publicly announced) or outstanding long-term indebtedness of the Company or any of its 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, in the ordinary course of business or as otherwise disclosed in the Registration Statement or Prospectus (including any document deemed incorporated by reference therein).

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(j) Capitalization. The issued and outstanding shares of capital stock of the Company have been validly issued, are fully paid, and nonassessable. The Company

has an authorized, issued, and outstanding capitalization as set forth in the Registration Statement or the Prospectus as of the dates referred to therein (other than the grant of shares of Common Stock, options or restricted stock under the Company's existing 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 Placement Shares), and such authorized capital stock conforms to the description thereof set forth in the Registration Statement and the Prospectus. The description of the Common Stock in the Registration Statement and the Prospectus is complete and accurate in all material respects. Except as disclosed in or contemplated by the Registration Statement, the Prospectus, and the Incorporated Documents, as of the date referred to therein, the Company did not have reserved or available for issuance any shares of Common Stock in respect of options, any rights or warrants to subscribe for, 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.

(k) Authorization: Enforceability. 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 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 11 hereof may be limited by federal or state securities laws and public policy considerations in respect thereof.

(l) Authorization of Placement Shares. The Placement 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 any Agent 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 Placement Shares, when issued, will conform in all material respects to the description thereof set forth in or incorporated into the Prospectus.

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(m) No Consents Required. 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 Placement Shares as contemplated hereby, except for such consents, approvals, authorizations, orders, and registrations or qualifications as may be required under applicable state securities laws or by the bylaws and rules of the Financial Industry Regulatory Authority ("FINRA") or the Exchange in connection with the sale of the Placement Shares by the Agent.

(n) No Preferential Rights. Except as set forth in the Registration Statement or the Prospectus: (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 Common 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 from time to time under the Company's stock option 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 Common Stock or shares of any other capital stock or other securities of the Company from the Company that have not been duly waived respecting the offering contemplated hereby; (iii) 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 Placement Shares; and (iv) no Person has the right, contractual or otherwise, to require the Company to register under the Securities Act any Common 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 hereby, whether as a result of the filing or effectiveness of the Registration Statement or the sale of the Placement Shares as contemplated hereby or otherwise, except for such rights as have been waived on or prior to the date hereof.

(o) Independent Public Accountant. (the "Accountants"), whose reports on the consolidated financial statements of the Company are filed with the SEC as part of the Company's most recent Annual Report on Form 10-K and incorporated by reference into the Registration Statement, is and, during the periods covered by its report, was an independent registered public accounting firm 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") respecting the Company.

(p) Enforceability of Agreements. To the Company's knowledge, all agreements between the Company and third parties expressly referenced in the Prospectus, 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 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.

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(q) No Litigation. Except as set forth in the Registration Statement or the Prospectus: (i) there are no legal, governmental, or regulatory actions, suits, or proceedings pending or, to the Company's knowledge, any legal, governmental, or regulatory investigations to which the Company, a Subsidiary, or any of their respective directors, officers, or controlling Persons is a party or to which any property of the Company or any of its Subsidiaries is the subject that, individually or in the aggregate, if determined adversely to the Company or any of its Subsidiaries, would reasonably be expected to have a Material Adverse Effect or materially and adversely affect the ability of the Company to perform its obligations under this Agreement; (ii) to the Company's knowledge, no actions, suits, or proceedings are threatened or contemplated by any governmental or regulatory authority or threatened by others against the Company, a Subsidiary, or any of their respective directors, officers, or controlling Persons that, individually or in the aggregate, if determined adversely to the Company or any of its Subsidiaries, would reasonably be expected to have a Material Adverse Effect; (iii) there are no current or pending legal, governmental, or regulatory, actions, suits, proceedings or, to the Company's knowledge, investigations that are required under the Securities Act to be described in the Prospectus that are not described in the Prospectus; and (iv) 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.

(r) Licenses and Permits. Except as set forth in the Registration Statement or the Prospectus, the Company and each of its 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 and the Prospectus (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 or the Prospectus, neither the Company nor its Subsidiaries have received written notice of any proceeding relating to revocation or modification of any such Permit or have any reason to believe that such Permit will not be renewed in the ordinary course, except when the failure to obtain any such renewal would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(s) S-3 Eligibility. (i) At the time of filing the Registration Statement; and (ii) if applicable, at the time of the most recent amendment thereto for the purposes of complying with Section 10(a)(3) of the Securities Act (whether such amendment was by post-effective amendment, incorporated report filed pursuant to Section 13 or 15(d) of the Exchange Act, or form of prospectus), the Company met the then-applicable requirements for use of Form S-3 under the Securities Act, including compliance with General Instruction I.B.6 of Form S-3, for the sale of up to the Maximum Amount of Placement Shares.

(t) No Material Defaults. Except as set forth in the Registration Statement and Prospectus, neither the Company nor any of 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. Except as set forth in the Registration Statement and Prospectus, 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, could reasonably be expected to have a Material Adverse Effect.

(u) Certain Market Activities. Neither the Company or any of 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 Placement Shares.

(v) Broker-Dealer Relationships. Neither the Company nor any of the Subsidiaries or any related entities: (i) are 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, control or are a "person associated with a member" or "associated person of a member" (within the meaning set forth in the FINRA rules).

(w) No Reliance. The Company has not relied upon the Agent or legal counsel for the Agent for any legal, tax, or accounting advice in connection with the offering and sale of the Placement Shares.

(x) Taxes. The Company and each of its Subsidiaries have filed all federal, state, local, and foreign tax returns that 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 when 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 or the Prospectus, no tax deficiency has been determined adversely to the Company or any of its Subsidiaries that 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 that has been or might be asserted or threatened against it that could reasonably be expected to have a Material Adverse Effect.

(y) Title to Real and Personal Property. The Company and each of its Subsidiaries have good title to all of their real and personal property owned by them that are material to the business of the Company and such Subsidiary, in each case, free and clear of all liens, encumbrances, and defects, except as described in the Registration Statement and Prospectus or that do not materially affect the value of the properties of the Company and its Subsidiaries, considered as one enterprise, and do not interfere in any material respect with the use made and proposed to be made of such properties by the Company and its Subsidiaries, considered as one enterprise; and all of the leases, subleases, and other rights under which the Company or any of its Subsidiaries holds or uses properties described in the Registration Statement and Prospectus are in full force and effect, with such exceptions as would not reasonably be expected to have a Material Adverse Effect, and neither the Company nor any of its Subsidiaries has received any written notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company or its Subsidiaries under any of the leases, subleases, and other rights mentioned above, or affecting or questioning the rights of the Company or any Subsidiary thereof to the continued possession or use of the leased or subleased premises or the premises granted by leases, subleases, and other rights. The Company and each of its Subsidiaries have the consents, easements, rights-of-way, or licenses from any Person as are necessary to enable them to conduct their business in the manner described in the Registration Statement and the Prospectus, subject to such qualifications as may be set forth in the Registration Statement and the Prospectus, and except for the consents, easements, rights-of-way, or licenses the lack of which would not have, individually or in the aggregate, a Material Adverse Effect.

(z) Intellectual Property. Except as set forth in the Registration Statement or the Prospectus, to the Company's knowledge, the Company and its Subsidiaries own or possess adequate enforceable 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 the Agent, the Company and any of its Subsidiaries have not received any written notice of any claim of infringement or conflict that asserted Intellectual Property rights of others, which infringement or conflict, if the subject of an unfavorable decision, would result in a Material Adverse Effect; there are no pending, or to the Company's knowledge, threatened judicial proceedings or interference proceedings against the Company or its Subsidiaries challenging the Company's or its Subsidiaries' rights in or to the validity of the scope of any of the Company's or its Subsidiaries' material patents, patent applications, or proprietary information; to the Company's knowledge, no other entity or individual has any right or claim in any of the Company's or its Subsidiaries' owned, 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 of the Company or a Subsidiary, other than by written licenses granted by the Company or a Subsidiary; the Company and its Subsidiaries have not received any written notice of any claim challenging the rights of the Company or a Subsidiary in or to any Intellectual Property owned, licensed, or optioned by the Company or such Subsidiary that, if the subject of an unfavorable decision, would result in a Material Adverse Effect.

(aa) Environmental Laws. Except as set forth in the Registration Statement or the Prospectus, the Company and its Subsidiaries: (i) are in compliance 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, hazardous or toxic substances or wastes, pollutants, or contaminants (collectively, "Environmental Laws"); (ii) have received and are in compliance 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 and the Prospectus; (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; and (iv) there are no costs or liabilities arising under Environmental Laws respecting the operation of the Company's and each of its Subsidiaries' properties (including any capital or operating expenditures required for clean-up or closure of the properties, compliance with Environmental Laws, any permit, license, or approval or any related legal constraints or operating activities, and any potential liabilities of third parties assumed under contract by the Company or any of its Subsidiaries) that would reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(bb) Disclosure Controls. Except as set forth in the Registration Statement or the Prospectus, the Company and each of its Subsidiaries maintains a system 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 generally accepted accounting principles 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 respecting any differences. The Company is not aware of any material weaknesses in its internal control over financial reporting (other than as set forth in the Prospectus). Since the date of the latest audited financial statements of the Company included in the Prospectus, 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). Except as set forth in the Registration Statement or the Prospectus, 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 provide reasonable assurance that material information relating to the Company and each of its 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 will present 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).

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(cc) Sarbanes-Oxley. 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 in all material respects 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 respecting all reports, schedules, forms, statements, and other documents required to be filed by it or furnished by it to the SEC. For purposes of the preceding sentence, "principal executive officer" and "principal financial officer" will have the meanings given to such terms in the Sarbanes-Oxley Act.

(dd) Finder's Fees. Neither the Company nor any of 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 respecting the Agent pursuant to this Agreement.

(ee) Labor Disputes. No labor disturbance by or dispute with employees of the Company or any of its Subsidiaries exists or, to the knowledge of the Company, is threatened that would reasonably be expected to result in a Material Adverse Effect.

(ff) Investment Company Act. Neither the Company nor any of the Subsidiaries is or, after giving effect to the offering and sale of the Placement 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").

(gg) Operations. The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all jurisdictions to which the Company or its 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 any of its Subsidiaries respecting the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

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(hh) Off-Balance Sheet Arrangements. 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 any structural finance, special purpose, or limited purpose entity (each, an "Off Balance Sheet Transaction") that could 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 SEC'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 that have not been described as required.

(jj) Underwriter Agreements. The Company is not a party to any agreement with an agent or underwriter for any other "at-the-market" or continuous equity transaction.

(jj) ERISA. 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 Subsidiaries (other than a Multiemployer Plan, within the meaning of Section 3(37) of ERISA) for employees or former employees of the Company and any of its Subsidiaries has been maintained in material compliance with its terms and the requirements of any applicable statutes, orders, rules, and regulations, including 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 respecting 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) Margin Rules. Neither the issuance, sale, and delivery of the Placement Shares nor the application of the proceeds thereof by the Company as described in the Registration Statement and the Prospectus will violate Regulation T, U, or X of the Board of Governors of the Federal Reserve System or any other regulation of such Board of Governors.

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

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(mm) No Improper Practices. (i) Neither the Company nor, to the Company's knowledge, the Subsidiaries or 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) no relationship, direct or indirect, exists between or among the Company or, to the Company's knowledge, any Subsidiary 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 Subsidiary, on the other hand, that is required by the Securities Act to be described in the Registration Statement and the Prospectus that is not so described; (iii) 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 and the Prospectus that is not so described; (iv) except as described in the Prospectus, 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) the Company has not offered, or caused any placement agent to offer, Common Stock to any Person with the intent to influence unlawfully: (1) 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 (2) 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 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 or the Prospectus.

(nn) Status under the Securities Act. 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 Placement Shares.

(oo) No Misstatement or Omission in an Issuer Free Writing Prospectus. Each Issuer Free Writing Prospectus, as of its issue date and as of each Applicable Time (as defined in Section 25 below), did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement or the Prospectus, including any incorporated document deemed to be a part thereof that has not been superseded or modified. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus based upon and in conformity with written information furnished to the Company by the Agent specifically for its therein.

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(pp) No Conflicts. None of the execution of this Agreement; the issuance, offering, or sale of the Placement Shares; the consummation of any of the transactions contemplated herein; or the compliance by the Company with the terms and provisions hereof will conflict with or result in a breach of any of the terms and provisions of; constitute 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, and defaults that would not reasonably be expected to have a Material Adverse Effect; nor will such action result in any material violation of the provisions of the organizational or governing documents of the Company or 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) Regulatory Compliance.

(i) Neither the Company nor any of its Subsidiaries (each, an "Entity") nor, to the Company's knowledge, any director, officer, employee, agent, affiliate, or representative of the Entity, is a government, individual, or entity that is owned or controlled by any director, officer, employee, agent, affiliate, or representative of the Entity that is:

(1) the subject of any sanctions administered or enforced by the U.S. Department of Treasury's Office of Foreign Assets Control, the United Nations Security Council, the European Union, Her Majesty's Treasury, or other relevant sanctions authority (collectively, "Sanctions"); or

(2) located, organized, or resident in a country or territory that is the subject of Sanctions (including Burma/Myanmar, Cuba, Iran, North Korea, Sudan and Syria).

(ii) The Company, on behalf of each Entity, represents and covenants that it will not, directly or indirectly, knowingly use, lend, contribute, or otherwise make available the proceeds of the offering governed by this Agreement to any subsidiary, joint venture partner, or other director, officer, employee, agent, affiliate, or representative of the Entity:

(1) 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

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(2) 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) Except as detailed in the Prospectus, for the past five years, the Entity has not knowingly engaged in, is not now knowingly engaged in, and will not engage 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.

(rr) Stock Transfer Taxes. On each Settlement Date, all stock transfer or other taxes (other than income taxes) that are required to be paid in connection with the sale and transfer of the Placement 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 in all material respects.

Any certificate signed by an officer of the Company and delivered to the Agent or to counsel for the Agent pursuant to or in connection with this Agreement will be deemed to be a representation and warranty by the Company, as applicable, to the Agent as to the matters set forth therein.

7. Covenants of the Company. The Company covenants and agrees with the Agent that:

(a) Registration Statement Amendments. After the date of this Agreement and during any period in which a Prospectus relating to any Placement Shares is required to be delivered by the Agent under the Securities Act (including in circumstances when such requirement may be satisfied pursuant to Rule 172 under the Securities Act): (i) the Company will notify the Agent promptly of the time when any subsequent amendment to the Registration Statement, other than documents incorporated by reference, has been filed with the SEC and/or has become effective or any subsequent supplement to the Prospectus has been filed and of any request by the SEC for any amendment or supplement to the Registration Statement or Prospectus or for additional information; (ii) the Company will prepare and file with the SEC, promptly upon the Agent's reasonable request, any amendments or supplements to the Registration Statement or Prospectus that, in the Agent's reasonable opinion, may be necessary or advisable in connection with the distribution of the Placement Shares by the Agent (*provided, however*, that the failure of the Agent to make such request will not relieve the Company of any obligation or liability hereunder, or affect the Agent's right to rely on the representations and warranties made by the Company in this Agreement and provided, further, that the only remedy the Agent will have respecting the failure to make such filing will be to cease making sales under this Agreement until such amendment or supplement is filed); (iii) the Company will not file any amendment or supplement to the Registration Statement or Prospectus relating to the sale of Placement Shares or a security convertible into the Placement Shares unless a copy thereof has been submitted to the Agent within a reasonable period of time before the filing and the Agent has not reasonably objected thereto within two (2) Business Days (*provided, however*, that (A) the failure of the Agent to make such objection will not relieve the Company of any obligation or liability hereunder, or affect the Agent's right to rely on the representations and warranties made by the Company in this Agreement and provided, further, that the only remedy the Agent will have respecting the failure by the Company to provide the Agent with such copy will be to cease making sales under this Agreement and (B) the Company will have no obligation to provide the Agent any advance copy of such filing or provide to the Agent an opportunity to object to such filing if (i) the filing does not name the Agent and does not relate to the transactions pursuant hereto or (ii) relates to the termination of this Agreement or the Prospectus Supplement) and the Company will furnish to the Agent at the time of filing thereof a copy of any document that upon

filing is deemed to be incorporated by reference into the Registration Statement or Prospectus, except for those documents available via EDGAR; and (iv) the Company will cause each amendment or supplement to the Prospectus to be filed with the SEC as required pursuant to the applicable paragraph of Rule 424(b) of the Securities Act or, in the case of any document to be incorporated therein by reference, to be filed with the SEC as required pursuant to the Exchange Act, within the period prescribed (the determination to file or not file any amendment or supplement with the SEC under this Section 7(a), based on the Company's reasonable opinion or reasonable objections, will be made exclusively by the Company).

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(b) Notice of SEC Stop Orders. The Company will advise the Agent, promptly after it receives notice or obtains knowledge thereof, of the issuance or threatened issuance by the SEC of any stop order suspending the effectiveness of the Registration Statement, of the suspension of the qualification of the Placement Shares for offering or sale in any jurisdiction, or of the initiation or threatening of any proceeding for any such purpose; and it will promptly use its commercially reasonable efforts to prevent the issuance of any stop order or to obtain its withdrawal if such a stop order should be issued. The Company will advise the Agent promptly after it receives any request by the SEC for any amendments to the Registration Statement or any amendment or supplements to the Prospectus or any Issuer Free Writing Prospectus or for additional information related to the offering of the Placement Shares or for additional information related to the Registration Statement, the Prospectus or any Issuer Free Writing Prospectus in connection with the offering of the Placement Shares.

(c) Delivery of Prospectus; Subsequent Changes. During any period in which a Prospectus relating to the Placement Shares is required to be delivered by the Agent under the Securities Act respecting the offer and sale of the Placement Shares (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act) (the "Prospectus Delivery Period"), the Company will comply with all requirements imposed upon it by the Securities Act, as from time to time in force, and to file on or before their respective due dates all reports and any definitive proxy or information statements required to be filed by the Company with the SEC pursuant to Sections 13(a), 13(c), 14, 15(d), or any other provision of or under the Exchange Act. If the Company has omitted any information from the Registration Statement pursuant to Rule 430A under the Securities Act, it will use its commercially reasonable efforts to comply with the provisions of and make all requisite filings with the SEC pursuant to said Rule 430A and to notify the Agent promptly of all such filings. If during the Prospectus Delivery Period any event occurs as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during the Prospectus Delivery Period it is necessary to amend or supplement the Registration Statement or Prospectus to comply with the Securities Act, the Company will promptly notify the Agent to suspend the offering of Placement Shares during such period and the Company will promptly amend or supplement the Registration Statement or Prospectus (at the expense of the Company) so as to correct such statement or omission or effect such compliance; provided, however, that the Company may delay any amendment or supplement, if in the sole discretion of the Company, it is in the Company's best interest to do so.

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(d) Listing of Placement Shares. During the Prospectus Delivery Period, the Company will use its commercially reasonable efforts to cause the Placement Shares to be listed on the Exchange.

(e) Delivery of Registration Statement and Prospectus. The Company will furnish to the Agent and its counsel (at the expense of the Company) copies of the Registration Statement, the Prospectus (including all documents incorporated by reference therein) and all amendments and supplements to the Registration Statement or Prospectus that are filed with the SEC during the Prospectus Delivery Period (including all documents filed with the SEC during such period that are deemed to be incorporated by reference therein), in each case as soon as reasonably practicable and in such quantities as the Agent may from time to time reasonably request and, at the Agent's request, will also furnish copies of the Prospectus to each exchange or market on which sales of the Placement Shares may be made; provided, however, that the Company will not be required to furnish any document (other than the Prospectus) to the Agent to the extent such document is available on EDGAR.

(f) Earnings Statement. The Company will make generally available to its security holders as soon as practicable, but in any event not later than 15 months after the end of the Company's current fiscal quarter, an earnings statement covering a 12-month period that satisfies the provisions of Section 11(a) and Rule 158 of the Securities Act. The Company's compliance with the reporting requirements of the Exchange Act shall be deemed to satisfy this Section 7(f).

(g) Use of Proceeds. The Company will use the Net Proceeds as described in the Prospectus in the section entitled "Use of Proceeds."

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(h) Notice of Other Sales. Without the prior written notice to the Agent, the Company will not, directly or indirectly, offer to sell, sell, contract to sell, grant any option to sell or otherwise dispose of any Common Stock (other than the Placement Shares offered pursuant to this Agreement) or securities convertible into or exchangeable for Common Stock, warrants or any rights to purchase or acquire, Common Stock during the period beginning on the second Trading Day immediately prior to the date on which any Placement Notice is delivered to the Agent hereunder and ending on the fifth Trading Day immediately following the final Settlement Date respecting Placement Shares sold pursuant to such Placement Notice (or, if the Placement Notice has been terminated or suspended prior to the sale of all Placement Shares covered by a Placement Notice, the date of such suspension or termination); and will not directly or indirectly in any other "at-the-market" offering sell, contract to sell, grant any option to sell or otherwise dispose of any Common Stock (other than the Placement Shares offered pursuant to this Agreement) or securities convertible into or exchangeable for Common Stock, warrants or any rights to purchase or acquire, Common Stock prior to the termination of this Agreement; *provided, however*, that such restrictions will not be required in connection with the Company's issuance or sale of: (1) Common Stock, options to purchase Common Stock or Common Stock issuable upon the exercise of options or restricted stock units granted pursuant to a waiver to exceed plan limits in its dividend reinvestment plan, stock ownership plan or dividend reinvestment plan (but not Common Stock subject to a waiver to exceed plan limits in its dividend reinvestment plan) of the Company whether now in effect or hereafter implemented; (2) Common Stock issuable upon conversion of securities or in respect of dividends accruing thereon or the exercise of warrants, options or other rights in effect or outstanding, and disclosed in filings by the Company available on EDGAR or otherwise in writing to the Agent; and (3) Common Stock, or securities convertible into or exercisable for Common Stock, as consideration for mergers, acquisitions, other business combinations, licensing agreements or strategic alliances, or offered and sold in a privately negotiated transaction to vendors, customers, or strategic partners and otherwise conducted in a manner so as not to be integrated with the offering of Common Stock hereby.

(i) Change of Circumstances. The Company will, at any time that a Placement Notice has been issued, advise the Agent promptly after it will have received notice or obtained knowledge thereof, of any information or fact that would alter or affect in any material respect any opinion, certificate, letter or other document required to be provided to the Agent pursuant to this Agreement.

(j) Due Diligence Cooperation. The Company will cooperate with any reasonable due diligence review conducted by the Agent or its representatives in connection with the transactions contemplated hereby, including providing information and making available documents and senior corporate officers, during regular business hours and at the Company's principal offices or such other location mutually agreed to by the parties, as the Agent may reasonably request.

(k) Disclosure of Shares Sold. The Company will disclose information regarding the sale of the Placement Shares in compliance with the requirements of the Exchange Act.

(l) Representation Dates; Certificate. On the date of this Agreement and each time the Company:

(i) files the Prospectus relating to the Placement Shares or amends or supplements (other than a prospectus supplement relating solely to an offering of securities other than the Placement Shares) the Registration Statement or the Prospectus relating to the Placement Shares by means of a post-effective amendment, sticker, or supplement but not by means of incorporation of documents by reference into the Registration Statement or the Prospectus relating to the Placement Shares;

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(ii) files an annual report on Form 10-K under the Exchange Act (including any Form 10-K/A that contains restated financial statements);

(iii) files a quarterly report on Form 10-Q under the Exchange Act; or

(iv) files a current report on Form 8-K containing amended audited financial information (other than information “furnished” pursuant to Items 2.02 or 7.01 of Form 8-K or to provide disclosure pursuant to Item 8.01 of Form 8-K relating to the reclassification of certain properties as discontinued operations in accordance with Statement of Financial Accounting Standards No. 144) under the Exchange Act (each date of filing of one or more of the documents referred to in clauses (i) through (iv) will be a “Representation Date”);

the Company will furnish the Agent (but in the case of clause (iv) above only if the Agent reasonably determines that the information contained in such Form 8-K is material) with a certificate, in the form attached hereto as Exhibit A. The requirement to provide a certificate under this Section 7(l) will be waived for any Representation Date occurring at a time at which no Placement Notice is pending, which waiver will continue until the earlier to occur of the date the Company delivers a Placement Notice hereunder (which for such calendar quarter will be considered a Representation Date) and the next occurring Representation Date. Notwithstanding the foregoing, if the Company subsequently decides to sell Placement Shares following a Representation Date when the Company relied on such waiver and did not provide the Agent with a certificate under this Section 7(l), then before the Company delivers the Placement Notice or the Agent sells any Placement Shares, the Company will provide the Agent with a certificate, in the form attached hereto as Exhibit A, dated the date of the Placement Notice.

(m) Legal Opinion. On the date of this Agreement and within five Trading Days of each Representation Date for which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit A for which no waiver is applicable, the Company will cause to be furnished to the Agent written opinions of TroyGould (“Company Counsel”), or other counsel reasonably satisfactory to the Agent, in form and substance reasonably satisfactory to the Agent and its counsel; *provided, however*, the Company will be required to furnish to the Agent no more than one opinion hereunder per calendar quarter; *provided*, further, that in lieu of such opinions for subsequent periodic filings under the Exchange Act, Company Counsel may furnish the Agent with a letter (a “Reliance Letter”) to the effect that the Agent may rely on a prior opinion delivered under this Section 7(m) to the same extent as if it were dated the date of such letter (except that statements in such prior opinion will be deemed to relate to the Registration Statement and the Prospectus as amended or supplemented as of the date of the Reliance Letter).

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(n) Comfort Letters. On the date of this Agreement and within five Trading Days of each Representation Date, other than pursuant to Section 7(l)(iii), for which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit A for which no waiver is applicable, the Company will cause its Accountants to furnish the Agent letters (the “Comfort Letters”), dated the date the Comfort Letters are delivered, which will meet the requirements set forth in this Section 7(n). The Comfort Letter from each of the Accountants will be in a form and substance reasonably satisfactory to the Agent: (i) confirming that they are an independent public accounting firm within the meaning of the Securities Act and the PCAOB; (ii) stating, as of such date, the conclusions and findings of such firm respecting the financial information and other matters ordinarily covered by accountants’ “comfort letters” to underwriters in connection with registered public offerings (the first such letter, the “Initial Comfort Letter”); and (iii) updating the Initial Comfort Letter with any information that would have been included in the Initial Comfort Letter had it been given on such date and modified as necessary to relate to the Registration Statement and the Prospectus, as amended and supplemented to the date of such letter.

(o) Market Activities. The Company will not, directly or indirectly: (i) take any action designed to cause or result in, or that constitutes or 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 Common Stock; or (ii) sell, bid for, or purchase Common Stock in violation of Regulation M, or pay anyone any compensation for soliciting purchases of the Placement Shares other than the Agent.

(p) Investment Company Act. The Company will conduct its affairs in such a manner so as to reasonably ensure that neither it nor any of its Subsidiaries will be or become, at any time prior to the termination of this Agreement, required to register as an “investment company,” as such term is defined in the Investment Company Act.

(q) No Offer to Sell. Other than an Issuer Free Writing Prospectus approved in advance by the Company and the Agent in its capacity as agent hereunder, neither the Agent nor the Company (including its agents and representatives, other than the Agent in its capacity as such) will make, use, prepare, authorize, approve, or refer to any written communication (as defined in Rule 405 under the Securities Act), required to be filed with the SEC, that constitutes an offer to sell or solicitation of an offer to buy Placement Shares hereunder.

(r) Sarbanes-Oxley Act. The Company and the Subsidiaries shall comply with the applicable provisions of the Sarbanes-Oxley Act in all material respects.

8. Representations and Covenants of the Agent. The Agent represents and warrants that it is duly registered as a broker-dealer under FINRA, the Exchange Act, and the applicable statutes and regulations of each state in which the Placement Shares will be offered and sold, except such states in which such Agent is exempt from registration or such registration is not otherwise required. The Agent will continue, for the term of this Agreement, to be duly registered as a broker-dealer under FINRA, the Exchange Act, and the applicable statutes and regulations of each state in which the Placement Shares will be offered and sold, except such states in which such Agent is exempt from registration or such registration is not otherwise required, during the term of this Agreement. The Agent will comply with all applicable law and regulations in connection with the Placement Shares, including Regulation M.

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9. Payment of Expenses. The Company will pay all expenses incident to the performance of its obligations under this Agreement, including: (i) the preparation, filing, including any fees required by the SEC, and printing of the Registration Statement (including financial statements and exhibits) as originally filed and of each amendment and supplement thereto and each Free Writing Prospectus, in such number as the Agent will reasonably deem necessary; (ii) the printing and delivery to the Agent of this Agreement and such other documents as may reasonably be required in connection with the offering, purchase, sale, issuance, or delivery of the Placement Shares; (iii) the preparation, issuance, and delivery of the certificates, if any, for the Placement Shares to the Agent, including any stock or other transfer taxes and any capital duties, stamp duties, or other duties or taxes payable upon the sale, issuance, or delivery of the Placement Shares to the Agent; (iv) the fees and disbursements of the counsel, accountants, and other advisors to the Company; (v) the fees and expenses of the transfer agent and registrar for the Common Stock; (vi) the filing fees incident to any review by FINRA of the terms of the sale of the Placement Shares; (vii) the fees and expenses incurred in connection with the listing of the Placement Shares on the Exchange; (viii) usual and customary transaction, ticket, and similar charges; (ix) \$50,000 in due diligence fees and expenses of the Agent, including Agent’s legal counsel initially and, thereafter, the reasonable fees and expenses of the Agent’s legal counsel in connection with quarterly and annual bring-downs required hereunder up to a maximum amount of \$5,000 for each such bring-down.

10. Conditions to the Agent's Obligations. The obligations of the Agent hereunder respecting a Placement will be subject to the continuing accuracy and completeness of the representations and warranties made by the Company herein in all material respects (except for representations and warranties qualified by materiality which are required to be accurate and complete in all respects), to the due performance by the Company of its obligations hereunder in all material respects, to the completion by such Agent of a due diligence review satisfactory to it in its reasonable judgment, and to the continuing satisfaction (or waiver by such Agent in its sole discretion) of the following additional conditions:

(a) Registration Statement Effective. The Company shall at all times maintain in effect the Registration Statement, which will be available for the sale of all Placement Shares contemplated to be issued by any Placement Notice.

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(b) No Material Notices. None of the following events will have occurred and be continuing: (i) receipt by the Company of any request for additional information from the SEC or any other federal or state governmental authority during the period of effectiveness of the Registration Statement the response to which would require any post-effective amendments or supplements to the Registration Statement or the Prospectus which have not, as of the time of such Placement, been so made; (ii) the issuance by the SEC or any other federal or state governmental authority of any stop order suspending the effectiveness of the Registration Statement or the initiation of any proceedings for that purpose; (iii) receipt by the Company of any notification respecting the suspension of the qualification or exemption from qualification of any of the Placement Shares for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose; or (iv) the occurrence of any event that requires the making of any changes in the Registration Statement, the Prospectus or documents so that, in the case of the Registration Statement, it will not contain any materially untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading and, that in the case of the Prospectus, it will not contain any materially untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(c) No Misstatement or Material Omission. Such Agent will not have advised the Company that the Registration Statement or Prospectus, or any amendment or supplement thereto, contains an untrue statement of fact that in the Agent's reasonable opinion is material, or omits to state a fact that in the Agent's opinion is material and is required to be stated therein or is necessary to make the statements therein not misleading, which changes shall not, as of the time of the Placement, have been so made.

(d) Material Changes. Except as contemplated in the Prospectus, or disclosed in the Company's reports filed with the SEC, there will not have been any material adverse change, on a consolidated basis, in the authorized capital stock of the Company or any Material Adverse Effect, or any development that could reasonably be expected to cause a Material Adverse Effect.

(e) Legal Opinion. Such Agent will have received the opinion of Company Counsel required to be delivered pursuant Section 7(m) on or before the date on which such delivery of such opinion is required pursuant to Section 7(m).

(f) Comfort Letters. Such Agent will have received the Comfort Letter required to be delivered pursuant Section 7(n) on or before the date on which such delivery of such letter is required pursuant to Section 7(n).

(g) Representation Certificate. Such Agent will have received the certificate required to be delivered pursuant to Section 7(l) on or before the date on which delivery of such certificate is required pursuant to Section 7(l).

(h) No Suspension. Trading in the Common Stock will not have been suspended on the Exchange and the Common Stock will not have been delisted from the Exchange.

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(i) Other Materials. On each date on which the Company is required to deliver a certificate pursuant to Section 7(l), the Company will have furnished to such Agent such appropriate further information, certificates, and documents as such Agent may reasonably request and that are usually and customarily furnished by an issuer of securities in connection with a securities offering. All such opinions, certificates, letters, and other documents will be in compliance with the provisions hereof. The Company will furnish such Agent with such conformed copies of such opinions, certificates, letters, and other documents as such Agent will reasonably request.

(j) Securities Act Filings Made. All filings with the SEC required by Rule 424 under the Securities Act to have been filed prior to the issuance of any Placement Notice hereunder will have been made within the applicable period prescribed for such filing by Rule 424.

(k) Approval for Listing. To the extent required by continued listing rules of the Exchange, the Placement Shares will either have been approved for listing on the Exchange, subject only to notice of issuance, or the Company will have filed an application for listing of the Placement Shares on the Exchange at, or prior to, the issuance of any Placement Notice.

(l) No Termination Event. No event will have occurred that would permit such Agent to terminate this Agreement pursuant to Section 13(a).

#### 11. Indemnification and Contribution.

(a) Company Indemnification. The Company agrees to indemnify and hold harmless the Agent, its partners, members, directors, officers, employees, and agents and each Person, if any, who controls any Agent within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act as follows:

(i) against any and all loss, liability, claim, damage, and expense whatsoever, as incurred, joint or several, arising out of or based upon any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (or any amendment thereto), or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading, or arising out of any untrue statement or alleged untrue statement of a material fact included in any related Issuer Free Writing Prospectus or the Prospectus (or any amendment or supplement thereto), or the omission or alleged omission therefrom of a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading;

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(ii) against any and all loss, liability, claim, damage and expense whatsoever, as incurred, joint or several, to the extent of the aggregate amount paid in settlement of any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened, or of any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission; provided that any such settlement is effected with the written consent of the Company, which consent will not unreasonably be delayed or withheld; and

(iii) against any and all expense whatsoever, as incurred (including the reasonable fees and disbursements of counsel), reasonably incurred in investigating, preparing or defending against any litigation, or any investigation or proceeding by any governmental agency or body, commenced or threatened,

or any claim whatsoever based upon any such untrue statement or omission, or any such alleged untrue statement or omission, to the extent that any such expense is not paid under (i) or (ii) above;

*provided, however*, that this indemnity agreement will not apply to any loss, liability, claim, damage, or expense to the extent arising out of any untrue statement or omission or alleged untrue statement or omission made solely in reliance upon and in conformity with written information furnished to the Company by the Agent expressly for use in the Registration Statement (or any amendment thereto), or in any related Issuer Free Writing Prospectus or the Prospectus (or any amendment or supplement thereto). The Company shall indemnify and hold harmless the Agent against any losses, claims, damages, or liabilities arising from any misstatements or omissions in the Registration Statement, Prospectus, or other offering materials, except to the extent such losses result from the Agent's gross negligence or willful misconduct.

(b) Agent Indemnification. The Agent agrees, jointly and severally, to indemnify and hold harmless the Company and its directors and each officer of the Company who signed the Registration Statement, and each Person, if any, that: (i) controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act; or (ii) is controlled by or is under common control with the Company against any and all loss, liability, claim, damage, and expense described in the indemnity contained in Section 11(c), as incurred, but only respecting untrue statements or omissions, or alleged untrue statements or omissions, made in the Registration Statement (or any amendments thereto), the Prospectus (or any amendment or supplement thereto) or any Free Writing Prospectus in reliance upon and in conformity with information furnished to the Company in writing by the Agent expressly for use therein.

(c) Procedure.

(i) Any party that proposes to assert the right to be indemnified under this Section 11 will, promptly after receipt of notice of commencement of any action against such party in respect of which a claim is to be made against an indemnifying party or parties under this Section 11, notify each such indemnifying party of the commencement of such action, enclosing a copy of all papers served, but the omission so to notify such indemnifying party will not relieve the indemnifying party from: (1) any liability that it might have to any indemnified party otherwise than under this Section 11; and (2) any liability that it may have to any indemnified party under the foregoing provision of this Section 11 unless, and only to the extent that, such omission results in the forfeiture or material impairment of substantive rights or defenses by the indemnifying party.

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(ii) If any such action is brought against any indemnified party and it notifies the indemnifying party of its commencement, the indemnifying party will be entitled to participate in and, to the extent that it elects by delivering written notice to the indemnified party promptly after receiving notice of the commencement of the action from the indemnified party, jointly with any other indemnifying party similarly notified, to assume the defense of the action, with counsel reasonably satisfactory to the indemnified party, and after notice from the indemnifying party to the indemnified party of its election to assume the defense, the indemnifying party will not be liable to the indemnified party for any legal or other expenses except as provided below and except for the reasonable costs of investigation subsequently incurred by the indemnified party in connection with the defense.

(iii) The indemnified party will have the right to employ its own counsel in any such action, but the fees, expenses and other charges of such counsel will be at the expense of such indemnified party unless: (1) the employment of counsel by the indemnified party has been authorized in writing by the indemnifying party; (2) the indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party; (3) a conflict or potential conflict exists (based on advice of counsel to the indemnified party) between the indemnified party and the indemnifying party (in which case the indemnifying party will not have the right to direct the defense of such action on behalf of the indemnified party); or (4) the indemnifying party has not in fact employed counsel to assume the defense of such action within a reasonable time after receiving notice of the commencement of the action, in each of which cases the reasonable fees, disbursements and other charges of counsel will be at the expense of the indemnifying party or parties.

(iv) It is understood that the indemnifying party or parties will not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable fees, disbursements and other charges of more than one separate firm admitted to practice in such jurisdiction at any one time for all such indemnified party or parties. All such fees, disbursements, and other charges will be reimbursed by the indemnifying party promptly after the indemnifying party receives a written invoice relating to fees, disbursements and other charges in reasonable detail.

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(v) An indemnifying party will not, in any event, be liable for any settlement of any action or claim effected without its written consent. No indemnifying party will, without the prior written consent of each indemnified party, settle or compromise or consent to the entry of any judgment in any pending or threatened claim, action, or proceeding relating to the matters contemplated by this Section 11 (whether or not any indemnified party is a party thereto), unless such settlement, compromise or consent: (i) includes an unconditional release of each indemnified party from all liability arising out of such litigation, investigation, proceeding, 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) Contribution. In order to provide for just and equitable contribution in circumstances in which the indemnification provided for in the foregoing paragraphs of this Section 11 is applicable in accordance with its terms but for any reason is held to be unavailable from the Company or the Agent, the Company and the Agent will contribute to the total losses, claims, liabilities, expenses, and damages (including any investigative, legal and other expenses reasonably incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding or any claim asserted, but after deducting any contribution received by the Company from Persons other than the Agent, such as Persons that control the Company within the meaning of the Securities Act, officers of the Company who signed the Registration Statement and directors of the Company, who also may be liable for contribution) to which the Company and the Agent may be subject in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Agent, on the other hand. The relative benefits received by the Company, on the one hand, and the Agent, on the other hand, will be deemed to be in the same proportion as the total net proceeds from the sale of the Placement Shares (before deducting expenses) received by the Company bear to the total compensation received by the Agent (before deducting expenses) from the sale of Placement Shares on behalf of the Company. If, but only if, the allocation provided by the foregoing sentence is not permitted by applicable law, the allocation of contribution will be made in such proportion as is appropriate to reflect not only the relative benefits referred to in the foregoing sentence but also the relative fault of the Company, on the one hand, and the Agent, on the other hand, respecting the statements or omission that resulted in such loss, claim, liability, expense or damage, or action in respect thereof, as well as any other relevant equitable considerations respecting such offering. Such relative fault will be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or the Agent, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Agent agree that it would not be just and equitable if contributions pursuant to this Section 11(d) were to be determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, liability, expense, or damage, or action in respect thereof, referred to above in this Section 11(d) will be deemed to include, for the purpose of this Section 11(d), any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim to the extent consistent with Section 11(c) hereof. Notwithstanding the foregoing provisions of this Section 11(d), the Agent will not be required to contribute any amount in excess of the commissions received by it under this Agreement and no Person found guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 11(d), any Person who controls a party to this Agreement within the meaning of the Securities Act, and any officers, directors, partners, employees or agents of the Agent, will have the same rights to contribution as that party, and each officer and director of the Company who signed the Registration Statement will have the same rights to contribution as the Company, subject in each

case to the provisions hereof. Any party entitled to contribution, promptly after receipt of notice of commencement of any action against such party in respect of which a claim for contribution may be made under this Section 11(d), will notify any such party or parties from whom contribution may be sought, but the omission to so notify will not relieve that party or parties from whom contribution may be sought from any other obligation it or they may have under this Section 11(d) except to the extent that the failure to so notify such other party materially prejudiced the substantive rights or defenses of the party from whom contribution is sought. Except for a settlement entered into pursuant to the last sentence of Section 11(c) hereof, no party will be liable for contribution respecting any action or claim settled without its written consent if such consent is required pursuant to Section 11(c) hereof.

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12. Representations and Agreements to Survive Delivery. The indemnity and contribution agreements contained in Section 11 of this Agreement and all representations and warranties of the Company herein or in certificates delivered pursuant hereto will survive, as of their respective dates, regardless of: (a) any investigation made by or on behalf of the Agent, any controlling Persons, or the Company (or any of their respective officers, directors, or controlling Persons); (b) delivery and acceptance of the Placement Shares and payment therefor; or (c) any termination of this Agreement.

13. Termination.

(a) The Agent may terminate this Agreement, by written notice to the Company, as hereinafter specified at any time: (i) if there has been, since the time of execution of this Agreement or since the date as of which information is given in the Prospectus, any Material Adverse Effect, or any development has occurred that is reasonably likely to have a Material Adverse Effect or in the reasonable judgment of the Agent makes it impractical or inadvisable to market the Placement Shares or to enforce contracts for the sale of the Placement Shares; (ii) if there has occurred any material adverse change in the financial markets in the United States or the international financial markets, any outbreak of hostilities or escalation thereof or other calamity or crisis or any change or development involving a prospective change in national or international political, financial or economic conditions, in each case the effect of which is such as to make it, in the judgment of the Agent, impracticable or inadvisable to market the Placement Shares or to enforce contracts for the sale of the Placement Shares; (iii) if trading in the Common Stock has been suspended or limited by the SEC or the Exchange, or if trading generally on the Exchange has been suspended or limited, or minimum prices for trading have been fixed on the Exchange; (iv) if a major disruption of securities settlements or clearance services in the United States will have occurred and be continuing; or (v) if a banking moratorium has been declared by either U.S. Federal or New York authorities. Any such termination will be without liability of any party to any other party except that the provisions of Section 9 (Expenses), Section 11 (Indemnification), Section 12 (Survival of Representations), Section 18 (Applicable Law; Waiver of Jury Trial), Section 19 (Consent to Jurisdiction), and Section 20 (Use of Information) hereof will remain in full force and effect notwithstanding such termination. If the Agent elects to terminate this Agreement as provided in this Section 13(a), the Agent will provide the required notice as specified in Section 14 (Notices).

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(b) (i) The Company will have the right, by giving 10 days' notice as hereinafter specified to terminate this Agreement in its sole discretion at any time after the date of this Agreement.

(ii) If any Agent decline any commercially reasonable placement notice pursuant to Section 2(a) of this Agreement, then the Company will have the right to terminate this Agreement with respect to such Agent by giving written notice of termination to such Agent. Any such termination will be effective immediately upon a delivery of a termination notice by the Company to such Agent.

Any termination pursuant to Section 13(b) will be without liability of any party to any other party except that the provisions of Section 9, Section 11, Section 12, Section 18, Section 19, and Section 20 hereof will remain in full force and effect notwithstanding such termination.

(c) The Agent will have the right, by giving 10 days' notice as hereinafter specified to terminate this Agreement in their discretion at any time after the date of this Agreement. Any such termination will be without liability of any party to any other party except that the provisions of Section 9, Section 11, Section 12, Section 18, Section 19, and Section 20 hereof will remain in full force and effect notwithstanding such termination.

(d) Unless earlier terminated pursuant to this Section 13, this Agreement will automatically terminate upon the earlier to occur of: (i) the two-year anniversary of the date hereof; or (ii) the issuance and sale of all of the Placement Shares through the Agent on the terms and subject to the conditions set forth herein, except that, in either such case, the provisions of Section 9, Section 11, Section 12, Section 18, Section 19, and Section 20 hereof will remain in full force and effect notwithstanding such termination.

(e) This Agreement will remain in full force and effect unless terminated pursuant to Sections 13(a), (b), (c), or (d) above or otherwise by mutual agreement of the parties. Upon termination of this Agreement, the Company will not have any liability to any Agent for any discount, commission, or other compensation respecting any Placement Shares not otherwise sold by an Agent under this Agreement.

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(f) Any termination of this Agreement will be effective on the date specified in such notice of termination; *provided, however*, that such termination will not be effective until the close of business on the date of receipt of such notice by the Agent or the Company, as the case may be; provided further, that the Agent shall suspend any ongoing Placement as soon as practicable following receipt of the notice of termination (and in any event by the close of business on the date of receipt). If such termination will occur prior to the Settlement Date for any sale of Placement Shares, such Placement Shares will settle in accordance with the provisions of this Agreement.

14. Notices.

(a) All notices or other communications required or permitted to be given by any party to any other party pursuant to the terms of this Agreement will be in writing, unless otherwise specified, and if sent to WallachBeth Capital LLC, will be delivered to:

WallachBeth Capital LLC  
185 Hudson St  
Jersey City, NJ 07302  
Attn: Eric Schweitzer  
[cap-mkts@wallachbeth.com](mailto:cap-mkts@wallachbeth.com)

with a copy to:

Sichenzia Ross Ference Carmel LLP  
1185 Avenue of the Americas, 31st Floor  
New York, New York 10036  
Attn.:

and if to the Company, will be delivered to:

LIXTE Biotechnology Holdings, Inc.  
680 E Colorado Blvd., Suite 180.  
Pasadena, CA 91101  
[bvanderbaan@lixte.com](mailto:bvanderbaan@lixte.com)

with a copy to:

TroyGould PC  
1801 Century Park East, Suite 1600  
Los Angeles, CA 90067  
[dlf@troygould.com](mailto:dlf@troygould.com)

Notice to any other Agent shall be sent to its address set forth in Annex 1 hereto.

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(b) Each such notice or other communication will be deemed given: (i) when delivered personally on or before 4:30 p.m., New York City time, on a Business Day or, if such day is not a Business Day, on the next succeeding Business Day; or (ii) on the next Business Day after timely delivery to a nationally recognized overnight courier. For purposes of this Agreement, "Business Day" will mean any day on which the Exchange and commercial banks in the City of New York are open for business. An Electronic Notice needs to be sent for every communication between the parties to this Agreement.

(c) An electronic communication ("Electronic Notice") will be deemed written notice for purposes of this Section 14 if sent to the electronic mail address set forth above or specified by the receiving party under separate cover. Electronic Notice will be deemed received at the time the party sending Electronic Notice receives confirmation of receipt by the receiving party. Any party receiving Electronic Notice may request and will be entitled to receive the notice on paper, in a nonelectronic form ("Nonelectronic Notice"), which will be sent to the requesting party within 10 days of receipt of the written request for Nonelectronic Notice.

(d) Each party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose.

15. Successors and Assigns. This Agreement will inure to the benefit of and be binding upon the Company and the Agent and their respective successors and the affiliates, controlling persons, partners, members, officers, directors, employees, and agents referred to in Section 11 hereof. References to any of the parties contained in this Agreement will be deemed to include the successors and permitted assigns of such party. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assigns any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement. Neither party may assign its rights or obligations under this Agreement without the prior written consent of the other party.

16. Adjustments for Stock Splits. The parties acknowledge and agree that all share-related numbers contained in this Agreement will be adjusted to take into account any share consolidation, stock split, stock dividend, corporate domestication or similar event effected respecting the Placement Shares.

17. Entire Agreement; Amendment; Severability. This Agreement (including all schedules and exhibits attached hereto and Placement Notices issued pursuant hereto), by and between the Company and the Agent constitutes the entire agreement of the parties respecting the subject matter hereof and thereof and supersedes all other prior and contemporaneous agreements and undertakings, both written and oral, among the parties hereto with regard to the subject matter hereof and thereof. Neither this Agreement nor any term hereof may be amended except pursuant to a written instrument executed by the Company and the Agent. In the event that any one or more of the provisions contained herein, or the application thereof in any circumstance, is held invalid, illegal, or unenforceable as written by a court of competent jurisdiction, then such provision will be given full force and effect to the fullest possible extent that it is valid, legal, and enforceable, and the remainder of the terms and provisions herein will be construed as if such invalid, illegal, or unenforceable term or provision was not contained herein, but only to the extent that giving effect to such provision and the remainder of the terms and provisions hereof will be in accordance with the intent of the parties as reflected in this Agreement.

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**18. APPLICABLE LAW; WAIVER OF JURY TRIAL. THIS AGREEMENT WILL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK WITHOUT REGARD TO THE PRINCIPLES OF CONFLICTS OF LAWS. SPECIFIED TIMES OF DAY REFER TO NEW YORK CITY TIME. THE COMPANY 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.**

**19. CONSENT TO JURISDICTION. EACH PARTY HEREBY IRREVOCABLY SUBMITS TO THE NON-EXCLUSIVE JURISDICTION OF THE STATE AND FEDERAL COURTS SITTING IN THE CITY OF NEW YORK, BOROUGH OF MANHATTAN, FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH ANY TRANSACTION CONTEMPLATED HEREBY, AND HEREBY IRREVOCABLY WAIVES, AND AGREES NOT TO ASSERT IN ANY SUIT, ACTION OR PROCEEDING, ANY CLAIM THAT IT IS NOT PERSONALLY SUBJECT TO THE JURISDICTION OF ANY SUCH COURT, THAT SUCH SUIT, ACTION OR PROCEEDING IS BROUGHT IN AN INCONVENIENT FORUM OR THAT THE VENUE OF SUCH SUIT, ACTION OR PROCEEDING IS IMPROPER. EACH PARTY HEREBY IRREVOCABLY WAIVES PERSONAL SERVICE OF PROCESS AND CONSENTS TO PROCESS BEING SERVED IN ANY SUCH SUIT, ACTION OR PROCEEDING BY MAILING A COPY THEREOF (CERTIFIED OR REGISTERED MAIL, RETURN RECEIPT REQUESTED) TO SUCH PARTY AT THE ADDRESS IN EFFECT FOR NOTICES TO IT UNDER THIS AGREEMENT AND AGREES THAT SUCH SERVICE WILL CONSTITUTE GOOD AND SUFFICIENT SERVICE OF PROCESS AND NOTICE THEREOF. NOTHING CONTAINED HEREIN WILL BE DEEMED TO LIMIT IN ANY WAY ANY RIGHT TO SERVE PROCESS IN ANY MANNER PERMITTED BY LAW.**

20. Use of Information. The Agent may not use or disclose any information gained in connection with this Agreement and the transactions contemplated by this Agreement, including due diligence, for any purpose except in connection with entering into this Agreement and providing services as distribution agent hereunder.

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21. Counterparts. This Agreement may be executed in two or more counterparts, each of which will be deemed an original, but all of which together

will constitute one and the same instrument. Delivery of an executed Agreement by one party to the other may be made by facsimile transmission.

22. Effect of Headings. The section and exhibit headings herein are for convenience only and will not affect the construction hereof.

23. Permitted Free Writing Prospectuses. The Company represents, warrants, and agrees that, unless it obtains the prior consent of the Agent, which consent shall not be unreasonably withheld, conditioned or delayed, and each Agent represents, warrants and agrees that, unless it obtains the prior consent of the Company, which consent shall not be unreasonably withheld, conditioned or delayed, it has not made and will not make any offer relating to the Placement Shares that would constitute an Issuer Free Writing Prospectus, or that would otherwise constitute a "free writing prospectus," as defined in Rule 405, required to be filed with the SEC. Any such free writing prospectus consented to by the Agent or by the Company, as the case may be, is hereinafter referred to as a "Permitted Free Writing Prospectus." The Company represents and warrants that it has treated and agrees that it will treat each Permitted Free Writing Prospectus as an "issuer free writing prospectus," as defined in Rule 433, and has complied and will comply with the requirements of Rule 433 applicable to any Permitted Free Writing Prospectus, including timely filing with the SEC where required, legending, and recordkeeping. For the purposes of clarity, the parties hereto agree that all free writing prospectuses, if any, listed in Exhibit B hereto are Permitted Free Writing Prospectuses.

24. Absence of Fiduciary Relationship. The Company acknowledges and agrees that:

(a) Each Agent is acting solely as agent in connection with the public offering of the Placement Shares and in connection with each transaction contemplated by this Agreement and the process leading to such transactions, and no fiduciary or advisory relationship between the Company or any of its respective affiliates, stockholders (or other equity holders), creditors or employees or any other party, on the one hand, and such Agent, on the other hand, has been or will be created in respect of any of the transactions contemplated by this Agreement, irrespective of whether or not such Agent has advised or is advising the Company on other matters, and such Agent has no obligation to the Company respecting the transactions contemplated by this Agreement except the obligations expressly set forth in this Agreement;

(b) it is capable of evaluating and understanding, and understands and accepts, the terms, risks and conditions of the transactions contemplated by this Agreement;

(c) the Agent has not provided any legal, accounting, regulatory or tax advice respecting the transactions contemplated by this Agreement and it has consulted its own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate;

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(d) it is aware that the Agent and its affiliates are engaged in a broad range of transactions that may involve interests that differ from those of the Company and the Agent has no obligation to disclose such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship or otherwise; provided that the Agent hereby agrees not to engage in any such transaction that would cause its interests to be in direct conflict with the best interests of the Company; and

(e) it waives, to the fullest extent permitted by law, any claims it may have against any Agent for breach of fiduciary duty or alleged breach of fiduciary duty in connection with the sale of Placement Shares under this Agreement and agrees that no Agent will have any liability (whether direct or indirect, in contract, tort or otherwise) to it in respect of such a fiduciary duty claim or to any Person asserting a fiduciary duty claim on its behalf or in right of it or the Company, employees or creditors of Company, other than in respect of such Agent's obligations under this Agreement and to keep information provided by the Company to the Agent's and the Agents' counsel confidential to the extent not otherwise publicly available.

25. Definitions. As used in this Agreement, the following terms have the respective meanings set forth below:

(a) "Applicable Time" means: (i) each Representation Date; and (ii) the time of each sale of any Placement Shares pursuant to this Agreement.

(b) "Company's knowledge," "knowledge of the Company" and similar expressions mean the actual knowledge of an executive officer of the Company as of the date to which the expression relates.

(c) "Agent" means, as of any given time, an Agent that the Company has designated as sales agent to sell Placement Shares pursuant to the terms of this Agreement, which shall initially be WallachBeth Capital LLC.

(d) "Issuer Free Writing Prospectus" means any "issuer free writing prospectus," as defined in Rule 433, relating to the Placement Shares.

(e) "Rule 164," "Rule 172," "Rule 405," "Rule 415," "Rule 424," "Rule 424(b)," "Rule 430A," "Rule 430B," and "Rule 433" refer to such rules under the Securities Act Regulations.

(f) All references in this Agreement to financial statements and schedules and other information that is "contained," "included," or "stated" in the Registration Statement or the Prospectus (and all other references of like import) will be deemed to mean and include all such financial statements and schedules and other information that is incorporated by reference in the Registration Statement or the Prospectus, as the case may be.

(g) All references in this Agreement to the Registration Statement, the Prospectus or any amendment or supplement to any of the foregoing will be deemed to include the copy filed with the SEC pursuant to EDGAR; all references in this Agreement to any Issuer Free Writing Prospectus (other than any Issuer Free Writing Prospectuses that, pursuant to Rule 433, are not required to be filed with the SEC) will be deemed to include the copy thereof filed with the SEC pursuant to EDGAR; and all references in this Agreement to "supplements" to the Prospectus will include any supplements, "wrappers," or similar materials prepared in connection with any offering, sale, or private placement of any Placement Shares by the Agent outside of the United States.

(h)

[Signature Page Follows]

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If the foregoing correctly sets forth the understanding between the Company and the Agent, please so indicate in the space provided below for that purpose, whereupon this letter will constitute a binding agreement between the Company and the Agent.

Very truly yours,

**LIXTE BIOTECHNOLOGY HOLDINGS, INC.**

By: \_\_\_\_\_  
Name: Bas van der Baan  
Title: Chief Executive Officer

ACCEPTED as of the date first-above written:

**WALLACHBETH CAPITAL, LLC**

By: \_\_\_\_\_  
Name: Eric Schweitzer  
Title: Chief Compliance Officer

**SCHEDULE 1**

**FORM OF PLACEMENT NOTICE**

From: LIXTE Biotechnology Holdings, Inc.  
To: WallachBeth Capital, LLC  
Attention: Eric Schweitzer  
Subject: At-The-Market Issuance—Placement Notice  
Gentlemen:

Pursuant to the terms and subject to the conditions contained in the At-The-Market Issuance Sales Agreement between LIXTE Biotechnology Holdings, Inc., a Delaware corporation (the “Company”) and the Agent party thereto (“WallachBeth Capital LLC”), dated December [●], 2024, the Company hereby requests that the Agent sell up to \$ \_\_\_\_\_ of the Company’s Common Stock, par value \$0.0001 per share, at a minimum market price of \$ \_\_\_\_\_ per share, during the period beginning [month, day, time] and ending [month, day, time], not to exceed \$ \_\_\_\_\_ in a single Trading Day.

**SCHEDULE 2**

**Compensation**

The Company will pay to the Agent in cash, upon each sale of Placement Shares pursuant to this Agreement, an amount equal to up to three and one-half percent (3.5%) of the gross proceeds from each sale of Placement Shares.

**SCHEDULE 3**

**Notice Parties**

**The Company:**

Name	Title	Email
Bas van der Baan	Chief Executive Officer	bvanderbaan@lixte.com
Robert Weingarten	Chief Financial Officer	rweingarten@lixte.com

**WallachBeth Capital LLC**

Name	Title	Email
Ken Bantum		kbantum@wallachbeth.com cap-mkts@wallachbeth.com

**SCHEDULE 4**

**Subsidiaries**

**Subsidiaries of LIXTE Biotechnology Holdings, Inc.**

Name of Subsidiary	Jurisdiction of Incorporation
Lixte Biotechnology, Inc.	Delaware

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**Exhibit A**

**Form of Representation Date Certificate**

This Officer's Certificate (this "Certificate") is executed and delivered in connection with Section 7(l) of the At-The-Market Issuance Sales Agreement (the "Agreement"), dated December [●], 2024, and entered into between LIXTE Biotechnology Holdings, Inc. (the "Company") and the Agent party thereto. All capitalized terms used but not defined herein shall have the meanings given to such terms in the Agreement

The undersigned, a duly appointed and authorized officer of the Company, having made all necessary inquiries to establish the accuracy of the statements below and having been authorized by the Company to execute this certificate, hereby certifies, in his capacity as such officer and not in his individual capacity, as follows:

1. As of the date of this Certificate, neither the Registration Statement nor the Prospectus contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading and (iii) no event has occurred as a result of which it is necessary to amend or supplement the Prospectus in order to make the statements therein not untrue or misleading.
2. Each of the representations and warranties of the Company contained in Section 6 of the Agreement:
  - (a) to the extent such representations and warranties are subject to qualifications and exceptions contained therein relating to materiality or Material Adverse Effect, are true and correct on and as of the date hereof with the same force and effect as if expressly made on and as of the date hereof, except for those representations and warranties that speak solely as of a specific date, which were true and correct as of such date; and
  - (b) to the extent such representations and warranties are not subject to any qualifications or exceptions, are true and correct in all material respects as of the date hereof as if made on and as of the date hereof with the same force and effect as if expressly made on and as of the date hereof, except for those representations and warranties that speak solely as of a specific date, which were true and correct as of such date.
3. Each of the covenants required to be performed by the Company in the Agreement on or prior to the date of the Agreement, this Representation Date, and each such other date as set forth in the Agreement, has been duly, timely and fully performed in all material respects and each condition required to be complied with by the Company on or prior to the date of the Agreement, this Representation Date, and each such other date as set forth in the Agreement has been duly, timely and fully complied with in all material respects.
4. Subsequent to the date of the most recent financial statements included in or incorporated by reference into the Prospectus, there has been no Material Adverse Effect.
5. No stop order suspending the effectiveness of the Registration Statement or of any part thereof has been issued, and, to the Company's knowledge, no proceedings for that purpose have been instituted or are pending or threatened by any securities or other governmental authority (including, without limitation, the SEC).

The undersigned has executed this Officer's Certificate as of the date first written above.

**LIXTE BIOTECHNOLOGY HOLDINGS, INC.**

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

Name: \_\_\_\_\_

Title: \_\_\_\_\_

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