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

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**FORM 8-K**

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

**Date of Report (Date of earliest event reported): March 27, 2020**

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**Altimune, Inc.**

(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or other jurisdiction  
of incorporation)

**001-32587**  
(Commission  
File Number)

**20-2726770**  
(IRS Employer  
Identification No.)

**910 Clopper Road Suite 201S**  
**Gaithersburg, Maryland**  
(Address of principal executive offices)

**20878**  
(Zip Code)

**Registrant's telephone number, including area code: (240) 654-1450**

**Not Applicable**  
(Former name or former address, if changed since last report)

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

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value \$0.0001 per share	ALT	The NASDAQ Global Market

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

Emerging growth company

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

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

On March 27, 2020, Altimmune, Inc. (the “Company”) entered into an Equity Distribution Agreement (the “Agreement”) with JMP Securities LLC, serving as placement agent (the “Placement Agent”) with respect to an at-the-market offering program under which the Company may offer and sell, from time to time at its sole discretion, shares of its common stock, par value \$0.0001 per share (the “Common Stock”), having an aggregate offering price of up to \$50.0 million (the “Shares”) through the Placement Agent (the “Offering”). Any Shares offered and sold in the Offering will be issued pursuant to the Company’s Registration Statement on Form S-3 filed with the Securities and Exchange Commission (the “SEC”) on April 4, 2019, which was declared effective on April 12, 2019, the prospectus supplement relating to the Offering filed with the SEC on March 27, 2020 and any applicable additional prospectus supplements related to the Offering that form a part of the Registration Statement. The aggregate market value of Shares eligible for sale in the Offering and under the Equity Distribution Agreement will be subject to the limitations of General Instruction I.B.6 of Form S-3, to the extent required under such instruction. We are only offering Shares having an aggregate offering price of \$18.9 million pursuant to the prospectus supplement filed with the SEC on March 27, 2020. The Company will be required to file another prospectus supplement in the event it determines to offer more than \$18.9 million of Shares in accordance with the terms of the Agreement, to the extent then permitted under General Instruction I.B.6 of Form S-3. A copy of the opinion of Goodwin Procter LLP relating to the legality of the issuance and sale of the Shares is attached as Exhibit 5.1 hereto.

The Placement Agent may sell the Shares 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, without limitation, sales made through The Nasdaq Global Market (“Nasdaq”) or on any other existing trading market for the Common Stock. The Placement Agent will use commercially reasonable efforts to sell the Shares from time to time consistent with its normal sales practices and applicable federal rules, regulations and Nasdaq rules, based upon instructions from the Company (including any price, time or size limits or other customary parameters or conditions the Company may impose). The Company will pay the Placement Agent a commission equal to three percent (3%) of the gross sales proceeds of any Shares sold through the Placement Agent under the Agreement, and also has provided the Placement Agent with customary indemnification and contribution rights.

The Placement Agent is not required to sell any specific number or dollar amount of securities, but will use commercially reasonable efforts to sell, on behalf of the Company, all of the shares of common stock requested to be sold by the Company, consistent with its normal trading and sales practices, on mutually agreed terms between the Placement Agent and the Company. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The foregoing description of the Agreement is not complete and is qualified in its entirety by reference to the full text of the Agreement, a copy of which is filed herewith as Exhibit 1.1 to this Current Report on Form 8-K and is incorporated herein by reference. A copy of the opinion of Goodwin Procter LLP relating to the legality of the issuance and sale of the shares in the Offering is attached as Exhibit 5.1 hereto.

This Current Report on Form 8-K shall not constitute an offer to sell or the solicitation of an offer to buy the securities discussed herein, nor shall there be any offer, solicitation, or sale of the securities in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
1.1	<a href="#">Equity Distribution Agreement, dated March 27, 2020, by and among Altimmune, Inc. and JMP Securities LLC</a>
5.1	<a href="#">Opinion of Goodwin Procter LLP</a>
23.1	<a href="#">Consent of Goodwin Procter LLP (contained in Exhibit 5.1)</a>

**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: March 27, 2020

**ALTIMMUNE, INC.**

By: /s/ William Brown  
William Brown  
Chief Financial Officer

Altimune, Inc.

\$50,000,000

Common Stock

EQUITY DISTRIBUTION AGREEMENT

Dated: March 27, 2020

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### EXHIBITS

- Exhibit A – Form of Placement Notice
- Exhibit B – Authorized Individuals for Placement Notices
- Exhibit C – Compensation
- Exhibit D – Officer Certificate
- Exhibit E – Issuer Free Writing Prospectus

ALTIMMUNE, INC.

\$50,000,000

Common Stock

EQUITY DISTRIBUTION AGREEMENT

March 27, 2020

JMP Securities LLC  
600 Montgomery Street, Suite 1100  
San Francisco, California 94111

Ladies and Gentlemen:

Altimune, Inc., a Delaware corporation (the "Company"), confirms its agreement (this "Agreement") with JMP Securities LLC (the "Placement Agent"), as follows:

SECTION 1. Description of Securities.

The Company agrees that, from time to time during the term of this Agreement, on the terms and subject to the conditions set forth herein, it may issue and sell through or to the Placement Agent, acting as agent and/or principal, shares (the "Securities") of the Company's common stock, par value \$0.0001 per share (the "Common Stock"), having an aggregate offering amount of up to \$50,000,000; provided, however, that in no event shall the Company issue or sell through the Agent such number or dollar amount of Securities that would (a) exceed the number or dollar amount of shares of Common Stock registered on the effective Registration Statement (defined below) pursuant to which the offering is being made, (b) exceed the number of authorized but unissued shares of Common Stock (less shares of Common Stock issuable upon exercise, conversion or exchange of any outstanding securities of the Company or otherwise reserved from the Company's authorized capital stock), (c) exceed the number or dollar amount of shares of Common Stock permitted to be sold under Form S-3 (including General Instruction I.B.6 thereof, if applicable) or (d) exceed the number or dollar amount of shares of Common Stock for which the Company has filed a Prospectus Supplement (defined below) (the lesser of (a), (b), (c) and (d), the "Maximum Amount"). The issuance and sale of the Securities through the Placement Agent will be effected pursuant to the Registration Statement (as defined below) filed by the Company and declared effective by the Securities and Exchange Commission (the "Commission"), although nothing in this Agreement shall be construed as requiring the Company to offer, sell or issue its Common Stock or any other securities under this Agreement, through the Placement Agent or pursuant to the Registration Statement.

The Company has filed, in accordance with the provisions of the Securities Act of 1933, as amended, and the rules and regulations thereunder (collectively, the "Securities Act"), with the Commission a registration statement on Form S-3 (File No. 333-230723), including a base prospectus relating to certain securities, including the Securities, 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, and the rules and regulations thereunder (collectively, the "Exchange Act"). The Company has prepared a prospectus supplement to the base prospectus included in the Registration Statement (as defined below), specifically relating to the Securities (the "Prospectus Supplement") to the base prospectus included as part of such registration statement. The Company will furnish to the Placement Agent, for use by the Placement Agent, copies of the base prospectus included as part of such registration statement, as supplemented by the Prospectus Supplement. Except where the context otherwise requires, such registration statement, as amended, when it became effective, and any



post-effective amendment thereto, 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 Commission pursuant to Rule 424(b) under the Securities Act or deemed to be a part of such registration statement pursuant to Rule 430B or 462(b) of the Securities Act, or any subsequent registration statement on Form S-3 filed pursuant to Rule 415(a)(6) under the Securities Act by the Company to cover any securities registered pursuant the Registration Statement, including any Securities, as a result of the end of the three-year period described in Rule 415(a)(5) of the Securities Act, is herein called the “Registration Statement.” The base prospectus, including all documents incorporated or deemed incorporated therein by reference to the extent such information has not been superseded or modified in accordance with Rule 412 under the Securities Act (as qualified by Rule 430B(g) of the Securities Act), included in the Registration Statement, as it may be supplemented by the Prospectus Supplement, in the form in which such base prospectus and/or Prospectus Supplement have most recently been filed by the Company with the Commission pursuant to Rule 424(b) under the Securities Act, together with the then issued Issuer Free Writing Prospectus(es) (as defined below), is herein called the “Prospectus.” Any reference herein to the Registration Statement, the Prospectus or any amendment or supplement thereto shall be deemed to refer to and include the documents incorporated by reference therein, and any reference herein to the terms “amend,” “amendment” or “supplement” with respect to the Registration Statement or the Prospectus shall be deemed to refer to and include the filing after the execution hereof of any document with the Commission deemed to be incorporated by reference therein. Any reference herein to financial statements and schedules and other information that is “contained,” “included” or “stated” in the Registration Statement, the Prospectus or to any amendment or supplement thereto (and all other references of like import) shall 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. Any reference herein to the Registration Statement, any Rule 462(b) Registration Statement (as defined below), the Prospectus or any amendment or supplement to any of the foregoing shall be deemed to include the copy filed with the Commission pursuant to the Commission’s Electronic Data Gathering, Analysis and Retrieval system (“EDGAR”); all references in this Agreement to any Issuer Free Writing Prospectus (other than any Issuer Free Writing Prospectuses that, pursuant to Rule 433 under the Securities Act, are not required to be filed with the Commission) shall be deemed to include the copy thereof filed with the Commission pursuant to EDGAR.

## SECTION 2. Placements.

Each time that the Company wishes to issue and sell Securities hereunder (each, a “Placement”), it will notify the Placement Agent by email notice (or other method mutually agreed to in writing by the parties) of the number of Securities to be sold (such Securities, the “Placement Securities”), the time period during which sales are requested to be made, any limitation on the number of Placement Securities 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 Exhibit A. The Placement Notice shall originate from any of the individuals from the Company set forth on Exhibit B (with a copy to each of the other individuals from the Company listed on such exhibit), and shall be addressed to each of the individuals from the Placement Agent set forth on Exhibit B, as such Exhibit B may be amended from time to time. Provided that the Company is otherwise in compliance with the terms of this Agreement, the Placement Notice shall be effective immediately upon receipt by the Placement Agent unless and until (i) the Placement Agent declines to accept the terms contained therein for any reason, (ii) the entire amount of the Placement Securities thereunder has been sold, (iii) the Company suspends or terminates the Placement Notice or (iv) this Agreement has been terminated under the provisions of Section 12. The amount of any discount, commission or other compensation to be paid by the Company to the Placement Agent in connection with the sale of the Placement Securities shall be calculated in accordance with the terms set forth in Exhibit C. It is expressly acknowledged and agreed that neither the Company nor the Placement Agent will have any obligation whatsoever with respect to a Placement or any Placement Securities unless and until the

Company delivers a Placement Notice to the Placement Agent and the Placement 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 or 3 of this Agreement and the terms of a Placement Notice, the terms of the Placement Notice will control.

**SECTION 3. Sale of Placement Securities by the Placement Agent.**

Subject to the provisions of Section 5(a), the Placement 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 laws, rules and regulations and the rules of Nasdaq (as defined below) to sell the Placement Securities up to the amount specified in the Placement Notice, and otherwise in accordance with the terms of such Placement Notice (as such Placement Notice may be amended). The Placement Agent will provide written confirmation to the Company (including by email correspondence to each of the individuals of the Company set forth on Exhibit B, if receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice was sent, other than via auto-reply) no later than the opening of each Trading Day (as defined below) immediately following the Trading Day on which it has made sales of Placement Securities hereunder setting forth the number of Placement Securities sold on such day, the compensation payable by the Company to the Placement Agent pursuant to Section 2 with respect to such sales, and the Net Proceeds (as defined below) payable to the Company, with an itemization of the deductions made by the Placement 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 (as such Placement Notice may be amended), the Placement Agent may sell Placement Securities by any method permitted by law deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act.

For the purposes hereof, “Trading Day” means any day on which shares of Common Stock are purchased and sold on the principal market on which the Common Stock is listed or quoted and during which there has been no market disruption of, unscheduled closing of or suspension of trading on such principal market.

**SECTION 4. Suspension of Sales.** The Company or the Placement Agent may, upon notice (a “Suspension Notice”) to the other party in writing (including by email correspondence to each of the individuals of the other party set forth on Exhibit B, 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 facsimile transmission or email correspondence to each of the individuals of the other party set forth on Exhibit B), suspend any sale of Placement Securities (a “Suspension”); *provided, however*, that such suspension shall not affect or impair either party’s obligations with respect to any Placement Securities sold hereunder prior to the receipt of such notice. Each of the parties agrees that no such notice under this Section 4 shall be effective against the other unless it is made to one of the individuals named on Exhibit B hereto, as such Exhibit B may be amended from time to time. While a Suspension is in effect any obligations under Sections 7(o), 7(p), 7(q) and 7(r) with respect to the delivery of certificates, opinions or comfort letters to the Placement Agent, shall be waived.

**SECTION 5. Sale and Delivery to the Placement Agent; Settlement.**

(a) *Sale of Placement Securities.* On the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, and unless the sale of the Placement Securities described therein has been declined, suspended, or otherwise terminated in accordance with the terms of this Agreement, the Placement 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 laws and regulations to sell such Placement Securities 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 the Placement Agent will be successful in selling Placement Securities, (ii) the Placement Agent will incur no liability or obligation to the Company or any other person or entity if it does not sell Placement Securities for any reason other than a failure by the Placement Agent to use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable laws and regulations to sell such Placement Securities as required under this Section 5, and (iii) the Placement Agent shall be under no obligation to purchase Securities on a principal basis pursuant to this Agreement, except as otherwise agreed by the Placement Agent in the Placement Notice (as such Placement Notice may be amended). The Placement Agent will not purchase Placement Securities for its own account as principal unless expressly authorized to do so by the Company in a Placement Notice (as such Placement Notice may be amended).

(b) *Settlement of Placement Securities.* Unless otherwise specified in the applicable Placement Notice, settlement for sales of Placement Securities will occur on the second (2<sup>nd</sup>) 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 amount of proceeds to be delivered to the Company on a Settlement Date against receipt of the Placement Securities sold (the “Net Proceeds”) will be equal to the aggregate sales price received by the Placement Agent at which such Placement Securities were sold, after deduction for (i) the Placement Agent’s commission, discount or other compensation for such sales payable by the Company pursuant to Section 2 hereof and (ii) any other amounts due and payable by the Company to the Placement Agent hereunder pursuant to Section 8 hereof.

(c) *Delivery of Placement Securities.* On or before each Settlement Date, concurrently with the receipt by the Company of the Net Proceeds due to the Company in respect of such Settlement Date, the Company will, or will cause its transfer agent to, electronically transfer the Placement Securities being sold by crediting the Placement Agent’s or its designee’s account (provided the Placement Agent shall have given the Company written notice of such designee at least one Trading Day prior to the Settlement Date) at The Depository Trust Company through its Deposit and Withdrawal at Custodian System (“DWAC”) or by such other means of delivery through the facilities of The Depository Trust Company as may be mutually agreed upon by the parties hereto which in all cases shall be freely tradable, transferable, registered shares in good deliverable form. On each Settlement Date, the Placement 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 Placement Agent will be responsible for providing DWAC instruction or instruction for delivery by other means with regard to the transfer of Placement Securities being sold. The Company agrees that if the Company, or its transfer agent (if applicable), defaults in its obligation to deliver Placement Securities on a Settlement Date (other than as a result of failure by the Placement Agent to timely provide instructions for delivery), the Company agrees that, in addition to and in no way limiting the rights and obligations set forth in Section 10(a) hereto, it will (i) hold the Placement Agent harmless against any loss, claim, damage, or reasonable and documented expense (including reasonable and documented legal fees and expenses), as incurred, arising out of or in connection with such default by the Company and (ii) pay to the Placement Agent any commission, discount, or other compensation to which it would otherwise have been entitled absent such default.

(d) *Denominations; Registration.* If requested by the Placement Agent at least two Business Days prior to the Settlement Date, then in lieu of electronic transfer, certificates for the Securities shall be delivered in such denominations and registered in such names as the Placement Agent shall have specified in such request. The certificates for the Securities, if any, will be made available for examination and packaging by the Placement Agent in The City of New York not later than noon (New York time) on the Business Day prior to the Settlement Date. The term “Business Day” means each Monday, Tuesday, Wednesday, Thursday or Friday that is not a day on which banking institutions in New York, New York are generally authorized or obligated by law or executive order to close.

SECTION 6. Representations and Warranties.

*Representations and Warranties by the Company.* The Company represents and warrants to the Placement Agent as of the date hereof and as of each Representation Date (as defined herein) on which a certificate is required to be delivered pursuant to Section 7(o) of this Agreement and as of the time of each sale of any Securities pursuant to this Agreement (the "Applicable Time"), and agrees with the Placement Agent, as follows:

(a) *Compliance with Registration Requirements.* The Securities have been duly registered under the Securities Act pursuant to the Registration Statement. The Registration Statement has been declared effective under the Securities Act, or, if applicable, with respect to any registration statement to be filed to register the offer and sale of the Securities pursuant to Rule 462(b) under the Securities Act, including the documents incorporated by reference therein, (a "Rule 462(b) Registration Statement"), will be filed with the Commission and become effective under the Securities Act no later than 10:00 P.M., New York City time, on the date required to increase the dollar amount of Securities available to be offered and sold under the Registration Statement, and no stop order suspending the effectiveness of the Registration Statement or any Rule 462(b) Registration Statement and no proceedings for such purpose have been instituted or are pending or, to the knowledge of the Company, are threatened by the Commission, and any request on the part of the Commission for additional information has been reasonably complied with.

At the respective times each of the Registration Statement, any Rule 462(b) Registration Statement and any post-effective amendments thereto became or becomes effective, the Registration Statement, any Rule 462(b) Registration Statement and any amendments and supplements thereto complied and will comply in all material respects with the requirements of the Securities Act. The Company meets the requirements for use of Form S-3 under the Securities Act subject to Instruction I.B.6 thereunder.

The Registration Statement, as of the date hereof and each effective date with respect thereto, did not and will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. Neither the Prospectus nor any amendments or supplements thereto, as of their respective dates, and at each Applicable Time and Settlement Date, as the case may be, included or will contain an untrue statement of a material fact or omitted or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

As of the close of trading on the Exchange on March 6, 2020, the aggregate market value of the outstanding voting and non-voting common equity (as defined in Rule 405) of the Company held by persons other than affiliates of the Company (pursuant to Rule 144 of the Securities Act, those that directly, or indirectly through one or more intermediaries, control, or are controlled by, or are under common control with, the Company) (the "Non-Affiliate Shares"), was approximately \$56.99 million (calculated by multiplying (x) the price at which the common equity of the Company was last sold on the Exchange on March 6, 2020 times (y) the number of Non-Affiliate Shares).

The representations and warranties set forth in the immediately preceding paragraph shall not apply to statements in or omissions from the Registration Statement or the Prospectus, as amended or supplemented, made in reliance upon and in conformity with information furnished to the Company in writing by the Placement Agent expressly for use therein.

The copies of the Registration Statement and any Rule 462(b) Registration Statement and any amendments thereto, any other preliminary prospectus, any Issuer Free Writing Prospectus that is required

to be filed with the Commission pursuant to Rule 433 under the Securities Act and the Prospectus and any amendments or supplements thereto delivered and to be delivered to the Placement Agent (electronically or otherwise) in connection with the offering of the Securities were and will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T. “Issuer Free Writing Prospectus” means any “issuer free writing prospectus,” as defined in Rule 433 under the Securities Act, relating to the Securities that (i) is required to be filed with the Commission by the Company, (ii) is a “road show” that is a “written communication” within the meaning of Rule 433(d)(8) (i) under the Securities Act whether or not required to be filed with the Commission, or (iii) is exempt from filing pursuant to Rule 433(d)(5)(i) under the Securities Act because it contains a description of the Securities or of the offering that does not reflect the final terms, and all free writing prospectuses that are listed in Exhibit E hereto, as such Exhibit E may be modified from time to time, in each case in the form furnished (electronically or otherwise) to the Placement Agent for use in connection with the offering of the Securities.

(b) *Issuer Free Writing Prospectus.* Any Issuer Free Writing Prospectus relating to the Securities, as of its issue date and as of each Applicable Time and Settlement Date, did not, does not and will not include any information that materially 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; each Issuer Free Writing Prospectus, as supplemented by and taken together with the Prospectus, as of the Applicable Time and Settlement Date, did not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The foregoing sentence does not apply to statements in or omissions from any issuer free writing prospectus made in reliance upon and in conformity with written information furnished to the Company by the Placement Agent specifically for use therein.

(c) *The Equity Distribution Agreement.* This Agreement has been duly authorized, executed and delivered by the Company.

(d) *Authorization of the Securities.* The Securities have been duly and validly authorized and, when issued and delivered to and paid for by the Placement Agent in accordance with the terms of this Agreement, will be duly and validly issued and fully paid and non-assessable and will conform in all material respects to the descriptions thereof contained in the Prospectus; and the issuance of such Securities is not subject to any preemptive or similar rights to subscribe for or purchase the Securities that have not been duly waived. The Securities, when issued, will conform to in all material respects to the description thereof set forth in or incorporated into the Registration Statement and the Prospectus.

(e) *No Applicable Registration or Other Similar Rights.* There are no persons with registration rights or other similar rights to have securities registered pursuant to the Registration Statement or included in the offering contemplated by this Agreement, except for such rights as have been duly waived in writing.

(f) *No Material Adverse Effect.* Except as otherwise disclosed in the Registration Statement and the Prospectus, subsequent to the respective dates as of which information is given in the Registration Statement and the Prospectus: (i) there has been no material adverse effect, or any development that would reasonably be expected to result in a material adverse effect, on the condition, financial or otherwise, or in the earnings, business, properties, operations, assets, liabilities or prospects, whether or not arising from transactions in the ordinary course of business, of the Company (any such effect being referred to herein as a “Material Adverse Effect”); (ii) the Company has not incurred any material liability or obligation, indirect, direct or contingent, including without limitation any losses or interference with its business from fire, explosion, flood, earthquakes, accident or other calamity, whether or not covered by insurance, or from any strike, labor dispute or court or governmental action, order or decree, that are material, individually or in

the aggregate, to the Company, or entered into any material transactions, in each case, not in the ordinary course of business; and (iii) there has not been any material change in the capital stock (other than the issuance of shares of Common Stock upon the exercise of stock options described as outstanding in, or the grant of options, restricted stock or other equity-based awards under the Company's existing equity incentive plans described in, the Registration Statement and Prospectus) or any material increase in any short-term or long-term indebtedness of the Company and there has been no dividend or distribution of any kind declared, paid or made by the Company on any class of capital stock, or any repurchase or redemption by the Company of any class of capital stock.

(g) *Independent Registered Public Accounting Firm.* Ernst & Young LLP, who have certified certain financial statements of the Company, is an independent registered public accounting firm as required by the Securities Act and the Public Company Accounting Oversight Board (United States) (the "PCAOB"). The financial statements, together with related schedules and notes, filed with the Commission as a part of the Registration Statement and the Prospectus comply in all material respects with the requirements of the Securities Act and present fairly, in all material respects, the financial position, results of operations, cash flows and changes in stockholders' equity of the Company on the basis stated in the Registration Statement and the Prospectus at the respective dates or for the respective periods to which they apply and such financial statements and related schedules and notes have been prepared in conformity with U.S. generally accepted accounting principles ("GAAP") applied on a consistent basis throughout the periods involved, except as disclosed therein. Except as otherwise included therein, no historical or pro forma financial statements or supporting schedules are required to be included or incorporated by reference in the Registration Statement or the Prospectus under the Securities Act. The interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto.

(h) *Company's Accounting System.* Except as otherwise disclosed in the Registration Statement and the Prospectus, the Company has made and keeps books, records and accounts, which, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company. The Company maintains a system of internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences; and (v) the interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement and the Prospectus fairly presents the information called for in all material respects and is prepared in accordance with the Commission's rules and guidelines applicable thereto.

(i) *Disclosure Controls and Procedures; Deficiencies in or Changes to Internal Control Over Financial Reporting.* The Company maintains disclosure controls and procedures (as such term is defined in Rule 13a-15 (e) of the Exchange Act) that comply with the requirements of the Exchange Act and, except to the extent that the material weaknesses identified in the Registration Statement and the Prospectus impair the effectiveness of the Company's disclosure controls and procedures, such disclosure controls and procedures are effective in all material respects to perform the functions for which they were established. Since the date of the latest audited financial statements included in the Registration Statement and the Prospectus, (i) the Company has not been advised of (A) any significant deficiencies in the design or operation of internal controls that could adversely affect the ability of the Company to record, process, summarize and report financial data, or any material weaknesses in internal controls, except as otherwise disclosed in the Registration Statement and the Prospectus, and (B) any fraud, whether or not material, that

involves management or other employees who have a significant role in the internal controls of the Company, and (ii) since that date, except as otherwise disclosed in the Registration Statement and 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.

(j) *Incorporation and Good Standing of the Company.* The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware, with power and authority (corporate and other) to own, lease and operate its properties and conduct its business as described in the Registration Statement and the Prospectus and to enter into and perform its obligations under this Agreement, and has been duly qualified as a foreign corporation for the transaction of business and is in good standing (or equivalent) under the laws of each other jurisdiction in which it owns or leases properties or conducts any business so as to require such qualification, except where the failure so to qualify or be in good standing (or equivalent) would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(k) *Subsidiaries.* The Company does not have any "significant subsidiaries" (as defined in Rule 1-02 of Regulation S-X promulgated by the Commission) other than those set forth on Schedule A hereto (each, a "Subsidiary", collectively, the "Subsidiaries"). Each Subsidiary has been duly incorporated (or organized) and is validly existing as a corporation (or other organization) in good standing (or equivalent) under the laws of the jurisdiction of its incorporation (or organization), with power and authority to own, lease and operate its properties and conduct its business as described in the Registration Statement and the Prospectus. All of the issued and outstanding capital stock (or other ownership interests) of each Subsidiary has been duly and validly authorized and issued, is fully paid and non-assessable and, except as set forth in the Registration Statement and the Prospectus, is owned by the Company free and clear of any security interest, mortgage, pledge, lien, encumbrance, claim or equity.

(l) *Capitalization and Other Capital Stock Matters.* The Company has an authorized capitalization as set forth in the Registration Statement and the Prospectus, and all of the issued and outstanding shares of capital stock of the Company have been duly and validly authorized and issued, are fully paid and non-assessable and conform to the descriptions thereof contained in the Prospectus in all material respects; and none of the issued and outstanding shares of capital stock of the Company are subject to any preemptive or similar rights.

(m) *Stock Exchange Listing.* The Securities are registered pursuant to Section 12(b) or 12(g) of the Exchange Act and are listed on The Nasdaq Global Market (the "Nasdaq"), and the Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Securities under the Exchange Act or delisting the Securities from the Nasdaq, nor has the Company received any notification that the Commission or the Nasdaq is contemplating terminating such registration or listing. To the Company's knowledge, it is in compliance with all applicable listing requirements of Nasdaq.

(n) *Non-Contravention of Existing Instruments; No Further Authorizations or Approvals Required.* The issue and sale of the Securities, the execution of this Agreement by the Company and the consummation of the transactions herein contemplated will not (i) conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company is a party or by which the Company is bound or to which any of the property or assets of the Company is subject, (ii) result in any violation of the provisions of the certificate of incorporation or bylaws of the Company, or (iii) result in any violation of any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or any of its properties, except, in the case of clauses (i) and (iii) for any such conflict, violation, breach or default that would not have a Material Adverse Effect; and no

consent, approval, authorization, order of, or registration or qualification of or with any such court or governmental agency or body is required for the issue and sale of the Securities or the consummation by the Company of the transactions contemplated by this Agreement, except the registration under the Securities Act of the Securities and such consents, approvals, authorizations, registrations or qualifications as may be required by the Financial Industry Regulatory Authority, Inc. ("FINRA") or under state securities or blue sky laws in connection with the purchase and distribution of the Securities by the Placement Agent.

(o) *Compliance with Laws.* The Company is not (i) in violation of its certificate of incorporation or bylaws or (ii) in violation of any law, ordinance, administrative or governmental rule or regulation applicable to the Company, (iii) in violation of any decree of any court or governmental agency or body having jurisdiction over the Company, or (iv) in default in the performance of any obligation, agreement or condition contained in any bond, debenture, note or any other evidence of indebtedness or in any agreement, indenture, lease or other instrument to which the Company is a party or by which it or any of its properties may be bound, except, in the case of clauses (ii), (iii) and (iv), where any such violation or default, individually or in the aggregate, would not have a Material Adverse Effect.

(p) *No Material Actions or Proceedings.* Other than as set forth in the Registration Statement and the Prospectus, there are no legal or governmental proceedings pending to which the Company is a party or of which any property of the Company is the subject which, if determined adversely to the Company, individually or in the aggregate, would have or may reasonably be expected to have a Material Adverse Effect, or would prevent or impair the consummation of the transactions contemplated by this Agreement, or which are required to be described in the Registration Statement and the Prospectus; and, to the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or others. No labor dispute with the employees of the Company exists, or, to the knowledge of the Company, is imminent, which may reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect. The Company is not aware of any existing or imminent labor disturbance by the employees of any of its principal contractors at any of the Company's facilities, which, individually or in the aggregate, may reasonably be expected to result in a Material Adverse Effect.

(q) *Intellectual Property Rights.* The Company owns or has obtained all necessary licenses for the patents, patent applications, patent rights, inventions, know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), trademarks, service marks and trade names, and other intellectual property (collectively "Intellectual Property") described in the Registration Statement and the Prospectus as being owned by it or licensed to it (such Intellectual Property owned by the Company is "Owned Intellectual Property" and such Intellectual Property licensed to the Company is "Licensed Intellectual Property") or which are necessary for the conduct of its business as currently conducted, except where the failure to so own or hold would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect. Except as disclosed in the Registration Statement and the Prospectus, to the knowledge of the Company: (i) there are no third parties who have rights to any Owned Intellectual Property, and (ii) there is no infringement by third parties of any Owned Intellectual Property or exclusively Licensed Intellectual Property. Except as disclosed in the Registration Statement and the Prospectus and except as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, there is no pending or, to the knowledge of the Company, threatened action, suit, proceeding or claim by others: (A) challenging the Company's rights in or to any Owned Intellectual Property or Licensed Intellectual Property, and the Company is unaware of any facts which would form a reasonable basis for any such action, suit, proceeding or claim; (B) challenging the validity, enforceability or scope of any Owned Intellectual Property, and the Company is unaware of any facts which would form a reasonable basis for any such action, suit, proceeding or claim; or (C) asserting that the Company infringes or otherwise violates, or would, upon the commercialization of any product or service described in the Registration Statement and the Prospectus as under development, infringe or violate, any copyright, patent, trademark, trade name, service mark, trade secret or other



proprietary rights of others, and the Company is unaware of any facts which would form a reasonable basis for any such action, suit, proceeding or claim. The Company has taken all steps reasonably necessary to secure its interest in the Owned Intellectual Property, including obtaining all necessary assignments from each of its employees, consultants and contractors pursuant to a written agreement containing a present tense assignment of all Intellectual Property created by such employee, consultant or contractor. The Company has taken commercially reasonable steps to protect and maintain all Owned Intellectual Property, including without limitation to preserve the confidentiality of any trade secrets. The Company is not in material violation of any Company License Agreements (as defined below). The license agreements by which the Company has been licensed any Licensed Intellectual Property ("Company License Agreements") are in full force and effect and constitute legal, valid and binding obligations of Company, and to the knowledge of the Company, the other parties thereto.

(r) *All Necessary Permits, etc.* The Company possesses all permits, licenses, approvals, consents and other authorizations (collectively, "Permits") issued by the appropriate federal, state, local or foreign regulatory agencies or bodies necessary to conduct the businesses now operated by it, except where the failure to possess such permit, license, approval, consent or authorization would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; the Company is in compliance with the terms and conditions of all such Permits and all of the Permits are valid and in full force and effect, except, in each case, where the failure so to comply or where the invalidity of such Permits or the failure of such Permits to be in full force and effect would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and the Company has not received any notice of proceedings relating to the revocation or material modification of any such Permits.

(s) *Title to Properties.* The Company has good and marketable title to all real and personal property owned by it, in each case free and clear of all liens, encumbrances and defects except as are described in the Registration Statement and the Prospectus or as do not materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company; and any real property and buildings held under lease by the Company are held under valid, subsisting and enforceable leases with such exceptions as are not material and do not materially interfere with the use made and proposed to be made of such property and buildings by the Company.

(t) *Tax Law Compliance.* All United States federal, state and foreign income and franchise tax returns and other material tax returns of the Company required by law to be filed have been filed (or the Company has duly requested extensions to such filings) and such tax returns are true, complete and correct in all material respects. All taxes required to be paid by the Company, and any related or similar assessments, fines or penalties levied, which are due and payable, have been paid, except for such taxes or assessments, if any, as are being contested in good faith or assessments against which appeals have been or will be promptly taken and as to which adequate reserves in conformity with GAAP have been provided. The charges, accruals and reserves on the books of the Company in respect of any income and corporation tax liability for any years not finally determined are, in conformity with GAAP, adequate to meet any assessments or re-assessments for additional income tax for any years not finally determined, except to the extent of any inadequacy that would not reasonably be expected to result in a Material Adverse Effect.

(u) *Insurance.* The Company is insured by insurers of recognized financial responsibility against such losses and risks (including without limitation risks related to clinical trials and product liability) and in such amounts as are prudent and customary in the businesses in which it is engaged; the Company has not been refused any insurance coverage sought or applied for, in each case that would have a Material Adverse Effect; and the Company has no reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business as now conducted at a cost that would not reasonably be expected to have a Material Adverse Effect.

(v) **Compliance with Environmental Laws.** The Company is not in violation of any statute or any rule, regulation, decision or order of any governmental agency or body or any court, domestic or foreign, relating to the use, production, disposal or release of hazardous or toxic substances or relating to the protection or restoration of the environment or human exposure to hazardous or toxic substances (collectively, “environmental laws”), does not own or operate any real property contaminated with any substance that is subject to any environmental laws, is not liable for any off-site disposal or contamination pursuant to any environmental laws, and is not subject to any claim relating to any environmental laws, which violation, contamination, liability or claim, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect; and the Company is not aware of any pending investigation which might reasonably be expected to lead to such a claim.

(w) **ERISA Compliance.** To the knowledge of the Company, each 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 for employees or former employees of the Company and its affiliates has been maintained in compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to ERISA and the Internal Revenue Code of 1986, as amended (the “Code”), except to the extent that failure to so comply, individually or in the aggregate, would not have a Material Adverse Effect. No prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code has occurred with respect to any such plan excluding transactions effected pursuant to a statutory or administrative exemption.

(x) **Company Not an “Investment Company.”** The Company is not and, after giving effect to the offering and sale of the Securities as contemplated herein and the application of the net proceeds therefrom as described in the Registration Statement and the Prospectus, will not be an “investment company”, as such term is defined in the Investment Company Act of 1940, as amended (the “Investment Company Act”).

(y) **No Price Stabilization or Manipulation; Compliance with Regulation M.** The Company has not taken, directly or indirectly, without giving effect to activities of the Placement Agent, any action designed to or that would reasonably be expected to cause or result in stabilization or manipulation of the price of the Securities or of any “reference security” (as defined in Rule 100 of Regulation M under the Exchange Act (“Regulation M”)) with respect to the Securities, whether to facilitate the sale or resale of the Securities or otherwise, and has taken no action which would directly or indirectly violate Regulation M.

(z) **Related-Party Transactions.** There are no business relationships or related-party transactions involving the Company or any other person required to be described in the Registration Statement and the Prospectus which have not been described as required.

(aa) **Statistical and Market-Related Data.** The statistical and market and industry-related data included in the Registration Statement or the Prospectus are based on or derived from sources which the Company believes to be reliable and accurate in all material respects or represent the Company’s good faith estimates that are made on the basis of data derived from such sources, and the Company has obtained the written consent to the use of such data from such sources to the extent required.

(bb) **Foreign Corrupt Practices Act.** Neither the Company nor, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person acting on behalf of the Company has, in the course of its actions for, or on behalf of, the Company (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; (ii) made any direct or indirect unlawful payment to any domestic government official, “foreign official” (as defined in the U.S. Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder

(collectively, the “FCPA”) or foreign government employee from corporate funds; (iii) violated or is in violation of any provision of the FCPA or any applicable non-U.S. anti-bribery statute or regulation; or (iv) made any unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any domestic government official, foreign official or foreign government employee; and the Company and, to the knowledge of the Company, the Company’s controlled affiliates have conducted their respective businesses in compliance with the FCPA and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith.

(cc) *Money Laundering Laws*. The operations of the Company 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 applicable jurisdictions, the rules and regulations thereunder and any related or similar applicable rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the “Money Laundering Laws”) and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(dd) *OFAC*. Neither the Company nor, to the knowledge of the Company, after due inquiry, any director, officer, agent, employee, affiliate or person acting on behalf of the Company is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department (“OFAC”); and the Company will not directly or indirectly use the proceeds of this offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, or any joint venture partner or other person or entity, for the purpose of financing the activities of or business with any person, or in any country or territory, that currently is the subject to any U.S. sanctions administered by OFAC or in any other manner that will result in a violation by any person (including any person participating in the transaction whether as underwriter, advisor, investor or otherwise) of U.S. sanctions administered by OFAC.

(ee) *Brokers*. Except pursuant to this Agreement, there is no broker, finder or other party that is entitled to receive from the Company any brokerage or finder’s fee or other fee or commission as a result of any transactions contemplated by this Agreement.

(ff) *Forward-Looking Statements*. Each financial or operational projection or other “forward-looking statement” (as defined by Section 27A of the Securities Act or Section 21E of the Exchange Act) contained in the Registration Statement or the Prospectus (i) was so included by the Company in good faith and with reasonable basis after due consideration by the Company of the underlying assumptions, estimates and other applicable facts and circumstances and (ii) is accompanied by meaningful cautionary statements identifying those factors that could cause actual results to differ materially from those in such forward-looking statement. No such statement was made with the knowledge of an executive officer or director of the Company that it was false or misleading.

(gg) *Regulatory Compliance*. Except as described in the Registration Statement and the Prospectus, and except as would not, individually or in the aggregate, have or may reasonably be expected to have a Material Adverse Effect: (i) the Company has not received any notice of adverse finding, warning letter, untitled letter or other similar correspondence or notice from the U.S. Food and Drug Administration (the “FDA”), or any other regulatory authority, alleging or asserting noncompliance with the Federal Food, Drug and Cosmetic Act (21 U.S.C. § 301 et seq.) (the “FFDCA”), or similar law; (ii) the Company is and has been in compliance with applicable health care laws, including without limitation, the FFDCA, and the federal Anti-Kickback Statute (42 U.S.C. § 1320a-7b(b)), and the regulations promulgated pursuant to such laws, and comparable state laws (collectively, “Health Care Laws”); (iii) the Company possesses all licenses, certificates, approvals, clearances, authorizations, permits and supplements or amendments thereto required by any such Health Care Laws and/or to carry on its businesses as now or proposed to be conducted

(“Authorizations”) and such Authorizations are valid and in full force and effect and the Company is not in violation of any term of any such Authorizations; (iv) the Company has not received notice of any ongoing claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any U.S. or non-U.S. federal, state, local or other governmental or regulatory authority, governmental or regulatory agency or body, court, or arbitrator (each, a “Governmental Authority”) alleging that any product operation or activity is in violation of any Health Care Laws or Authorizations or has any knowledge that any such Governmental Authority is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding; (v) the Company has not received written notice that any Governmental Authority has taken, is taking or intends to take action to limit, suspend, modify or revoke any Authorizations or has any knowledge that any such Governmental Authority is considering such action; and (vi) the Company has filed, obtained, maintained or submitted all material reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Health Care Laws or Authorizations and that all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete and correct in all material respects and not misleading on the date filed (or were corrected or supplemented by a subsequent submission).

(hh) *Clinical Data*. To the knowledge of the Company, the research, studies and tests conducted by or on behalf of the Company have been and, if still pending, are being conducted with reasonable care and in accordance with all Health Care Laws and Authorizations, except where such noncompliance would not reasonably be expected to have a Material Adverse Effect; the descriptions of the results of such research, studies and tests contained in the Registration Statement and the Prospectus are accurate and complete in all material respects and fairly present the data derived from such research, studies, and tests; except to the extent disclosed in the Registration Statement and the Prospectus, the Company is not aware of any research, studies or tests, the results of which the Company believes reasonably call into question the research, study or test results described or referred to in the Registration Statement and the Prospectus when viewed in the context in which such results are described; the Company has not received any written notices or written correspondence from any Governmental Authority requiring the termination, suspension or material adverse modification of any research, study or test conducted by or on behalf of the Company that are described in the Registration Statement and the Prospectus or the results of which are referred to in the Registration Statement and the Prospectus.

Any certificate signed by any officer of the Company delivered to the Placement Agent or to counsel for the Placement Agent pursuant to the terms or provisions of this Agreement shall be deemed a representation and warranty by the Company to the Placement Agent as to the matters covered thereby.

SECTION 7. Covenants of the Company. The Company covenants with the Placement Agent as follows:

(a) *Registration Statement Amendment*. After the date of this Agreement and during any period in which a Prospectus relating to any Placement Securities is required to be delivered by the Placement Agent under the Securities Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), (i) the Company will notify the Placement Agent promptly of the time when any subsequent amendment to the Registration Statement, other than documents incorporated by reference or amendments not related to the Placement Securities, has been filed with the Commission and/or has become effective or any subsequent supplement to the Prospectus related to the Placement Securities has been filed and of any comment letter from the Commission or any request by the Commission for any amendment or supplement to the Registration Statement or Prospectus related to the Placement Securities or for additional information; (ii) the Company will prepare and file with the Commission, promptly upon the Placement Agent’s reasonable request, any amendments or supplements to the Registration Statement or Prospectus that, in the Placement Agent’s reasonable opinion, may be

necessary or advisable to comply with applicable law in connection with the distribution of the Placement Securities by the Placement Agent (*provided, however*, that the failure of the Placement Agent to make such request shall not relieve the Company of any obligation or liability hereunder, or affect the Placement 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 Placement Agent shall have with respect to the failure to make such filing shall be to cease making any 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, other than documents incorporated by reference, relating to the Placement Securities unless a copy thereof has been submitted to the Placement Agent within a reasonable period of time before the filing and the Placement Agent has not reasonably objected thereto within a reasonable period of time (*provided, however*, that the failure of the Placement Agent to make such objection shall not relieve the Company of any obligation or liability hereunder, or affect the Placement Agent's right to rely on the representations and warranties made by the Company in this Agreement and the Company has no obligation to provide the Placement Agent any advance copy of such filing or to provide the Placement Agent any opportunity to object to such filing if such filing does not name the Placement Agent and does not relate to the transactions contemplated by this Agreement, and *provided, further*, that the only remedy the Placement Agent shall have with respect to the failure by the Company to obtain such consent shall be to cease making sales under this Agreement); (iv) if requested by the Placement Agent, the Company will furnish to the Placement 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 (v) the Company will cause each amendment or supplement to the Prospectus, other than documents incorporated by reference, to be filed with the Commission as required pursuant to the applicable paragraph of Rule 424(b) of the Securities Act (without reliance on Rule 424(b)(8) of the Securities Act). The determination to file or not file any amendment or supplement with the Commission under this Section 7(a), based on the Company's reasonable opinion or reasonable objections, shall be made exclusively by the Company.

(b) *Notice of Commission Stop Orders.* The Company will advise the Placement Agent, promptly after it receives notice or obtains knowledge thereof, of the issuance or threatened issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement, or of the suspension of the qualification of the Placement Securities for offering or sale in any jurisdiction, or of the initiation or threatening of any proceedings for any of such purposes, or of any examination pursuant to Section 8(e) of the Securities Act concerning the Registration Statement or if the Company becomes the subject of a proceeding under Section 8A of the Securities Act in connection with the offering of the Securities. The Company will use commercially reasonable efforts to prevent the issuance of any stop order or to obtain its withdrawal if such a stop order should be issued.

(c) *Delivery of Registration Statement and Prospectus.* Except to the extent such documents have been publicly filed with the Commission pursuant to EDGAR, upon the Placement Agent's request, the Company will furnish to the Placement 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, and any Issuer Free Writing Prospectuses, that are filed with the Commission during any period in which the Prospectus is required to be delivered under the Securities Act (including all documents filed with the Commission during such period that are deemed to be incorporated by reference therein), in each case as soon as reasonably practicable and in such quantities and at such locations as the Placement Agent may from time to time reasonably request.

(d) *Continued Compliance with Securities Laws.* If at any time when a Prospectus is required by the Securities Act to be delivered in connection with a pending sale of the Placement Securities (including, without limitation, pursuant to Rule 172 under the Securities Act), any event shall occur or

condition shall exist as a result of which it is necessary to amend the Registration Statement together with the Prospectus in order that the Prospectus will not include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it is delivered to a purchaser, or if it shall be necessary at any such time to amend the Registration Statement together with the Prospectus in order to comply with the requirements of the Securities Act, the Company will promptly notify the Placement Agent to suspend the offering of Placement Securities during such period and the Company will promptly prepare and file with the Commission such amendment or supplement as may be necessary to correct such statement or omission or to make the Registration Statement and the Prospectus comply with such requirements, and the Company will furnish to the Placement Agent such number of copies of such amendment or supplement as the Placement Agent may reasonably request. If at any time following the issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted, conflicts or would conflict with the information contained in the Registration Statement or the Prospectus or included, includes or would include an untrue statement of a material fact or together with the Prospectus omitted, omits or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances, prevailing at that subsequent time, not misleading, the Company will promptly notify the Placement Agent to suspend the offering of Placement Securities during such period and the Company will, subject to Section 7(a) hereof, promptly amend or supplement such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission. Notwithstanding the foregoing, the Company may delay any amendment or supplement required by this Section 7(d) if, in the reasonable judgment of the Company, it is in the best interests of the Company to do so.

(e) *Blue Sky and Other Qualifications.* The Company will use its commercially reasonable efforts, in cooperation with the Placement Agent, to qualify the Placement Securities for offering and sale, or to obtain an exemption for the Securities to be offered and sold, under the applicable securities laws of such states and other jurisdictions (domestic or foreign) as the Placement Agent may designate and to maintain such qualifications and exemptions in effect for so long as required for the distribution of the Securities (but in no event for less than one year from the date of this Agreement); *provided, however,* that the Company shall not be obligated to file any general consent to service of process or to qualify as a foreign corporation or as a dealer in securities in any jurisdiction in which it is not so qualified or to subject itself to taxation in respect of doing business in any jurisdiction in which it is not otherwise so subject. In each jurisdiction in which the Placement Securities have been so qualified or exempt, the Company will file such statements and reports as may be required by the laws of such jurisdiction to continue such qualification or exemption, as the case may be, in effect for so long as required for the distribution of the Placement Securities (but in no event for less than one year from the date of this Agreement).

(f) *Rule 158.* The Company will timely file such reports pursuant to the Exchange Act as are necessary in order to make generally available to its securityholders as soon as practicable an earnings statement for the purposes of, and to provide to the Placement Agent the benefits contemplated by, the last paragraph of Section 11(a) of the Securities Act. For the avoidance of doubt, 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 received by it from the sale of the Securities in the manner specified in the Prospectus under "Use of Proceeds."

(h) *Listing.* During any period in which the Prospectus is required to be delivered by the Placement Agent under the Securities Act with respect to a pending sale of the Placement Securities (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), the Company will use its commercially reasonable efforts to cause the Placement Securities to be listed on the Nasdaq.

- (i) *Filings with the Nasdaq.* The Company will timely seek to file with the Nasdaq all material documents and notices required by the Nasdaq.
- (j) *Reporting Requirements.* The Company, during any period when the Prospectus is required to be delivered under the Securities Act and the Exchange Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), will file all documents required to be filed with the Commission pursuant to the Exchange Act within the time periods required by the Exchange Act.
- (k) *Notice of Other Sales.* Upon the issuance and during the pendency of any Placement Notice given hereunder, the Company shall provide the Placement Agent notice as promptly as reasonably practicable before it offers to sell, contracts to sell, sells, grants any option to sell or otherwise disposes of any shares of Common Stock (other than Placement Securities offered pursuant to the provisions of this Agreement) or securities convertible into or exchangeable for Common Stock, warrants or any rights to purchase or acquire Common Stock; *provided*, that such notice shall not be required in connection with the (i) issuance, grant or sale of restricted stock, Common Stock, options to purchase shares of Common Stock, restricted stock or other stock awards or Common Stock issuable upon the exercise or vesting of options or other equity awards pursuant to any stock option, stock bonus, employee stock purchase or other stock or compensatory plan or arrangement described in the Registration Statement or the Prospectus, (ii) the issuance of shares of Common Stock upon conversion of securities or the exercise of warrants, options or other rights in effect or outstanding as of the date of this Agreement, and disclosed in filings by the Company available on EDGAR or otherwise in writing to the Placement Agent, (iii) the issuance of securities in connection with an acquisition, merger, sale or purchase of assets, other business combination, or strategic alliance occurring after the date of this Agreement and conducted in a manner so as to not be integrated with the offering of Securities hereby, or (iv) the issuance or sale of Common Stock pursuant to any dividend reinvestment plan that the Company has in effect or may adopt from time to time, *provided* the implementation of such new plan is disclosed to the Placement Agent in advance. Notwithstanding the foregoing provisions, nothing herein shall be construed to restrict the Company's ability, or require the Company to provide notice to the Placement Agent, to file a registration statement under the Securities Act.
- (l) *Change of Circumstances.* The Company will, at any time upon the issuance and during the pendency of a Placement Notice, advise the Placement Agent promptly after it shall 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 provided to the Placement Agent pursuant to this Agreement.
- (m) *Due Diligence Cooperation.* During the term of this Agreement, the Company will cooperate with any reasonable due diligence review conducted by the Placement Agent or its agents in connection with the transactions contemplated hereby, including, without limitation, providing information and making available documents and senior corporate officers, during regular business hours and at the Company's principal offices, as the Placement Agent may reasonably request.
- (n) *Disclosure of Sales.* The Company will, if applicable, disclose in its quarterly reports on Form 10-Q and in its annual report on Form 10-K the number of Placement Securities sold through the Placement Agent during the most recent completed fiscal quarter, the Net Proceeds to the Company and the compensation paid or payable by the Company to the Placement Agent with respect to such Placement Securities.
- (o) *Representation Dates; Certificate.* On or prior to the date that the Securities are first sold pursuant to the terms of this Agreement and:

(i) each time the Company files the Prospectus or amends or supplements the Registration Statement or the Prospectus (other than amendments or supplements that are filed solely to report sales of the Placement Securities pursuant to this Agreement) by means of a post-effective amendment, sticker, or supplement but not by means of a pre-effective amendment, incorporation of documents by reference into the Registration Statement or the Prospectus;

(ii) each time the Company files an annual report on Form 10-K under the Exchange Act;

(iii) each time the Company files its quarterly reports on Form 10-Q under the Exchange Act; or

(iv) each time the Company files a report on Form 8-K containing amended financial information (other than an earnings release, to “furnish” information 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 reclassifications of certain properties as discontinued operations in accordance with Statement of Financial Accounting Standards No. 144) under the Exchange Act, and the Placement Agent has reasonably determined that the information contained in the Form 8-K is material to a holder of Common Stock (each date of filing of one or more of the documents referred to in clauses (i) through (iv) shall be a “Representation Date”);

the Company shall furnish the Placement Agent with a certificate, in the form attached hereto as Exhibit D, within three (3) Trading Days of any Representation Date if required by the Placement Agent. The requirement to provide a certificate under this Section 7(o) shall be automatically waived for any Representation Date occurring at a time at which no Placement Notice is pending, which waiver shall continue until the date the Company delivers a Placement Notice hereunder (which for such calendar quarter shall be considered a Representation Date). Notwithstanding the foregoing, if the Company subsequently decides to sell Placement Securities following a Representation Date when the Company relied on such waiver and did not provide the Placement Agent with a certificate under this Section 7(o), then before the Company delivers the Placement Notice or the Placement Agent sells any Placement Securities, the Company shall provide the Placement Agent with a certificate, in the form attached hereto as Exhibit D, dated the date of the Placement Notice or such earlier date that is reasonably acceptable to the Placement Agent.

(p) *Legal Opinions.* On or prior to the date that the Securities are first sold pursuant to the terms of this Agreement, the Company shall cause to be furnished to the Placement Agent (i) a written opinion and negative assurance letter of Goodwin Procter LLP, corporate counsel to the Company (“Company Corporate Counsel”), or other counsel reasonably satisfactory to the Placement Agent, in form and substance reasonably satisfactory to the Placement Agent and its counsel, dated the date that the opinion and negative assurance letter are required to be delivered, in form and substance satisfactory to the Placement Agent, and (ii) unless waived by the Placement Agent, a written opinion and negative assurance letter of Duane Morris LLP, counsel to the Placement Agent (“Counsel to the Placement Agent”), or other counsel reasonably satisfactory to the Placement Agent, in form and substance reasonably satisfactory to the Placement Agent, dated the date that the opinion and negative assurance letter are required to be delivered. Thereafter, within three (3) Trading Days after each Representation Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit D for which no waiver is applicable, the Company shall cause to be furnished to the Placement Agent a negative assurance letter of Company Corporate Counsel in form and substance reasonably satisfactory to the Placement Agent; *provided, however*, that in lieu of negative assurance letter for subsequent Representation Dates occurring after the initial negative assurance letter is delivered, Company Corporate Counsel and/or Counsel to the Placement Agent may furnish the Placement Agent with a letter (a “Reliance Letter”) to the



effect that the Placement Agent may rely on a prior opinion and negative assurance letter delivered under this Section 7(p) to the same extent as if it were dated the date of such letter (except that statements in such prior opinion and negative assurance letter shall be deemed to relate to the Registration Statement and the Prospectus as amended or supplemented at such Representation Date).

(q) *Comfort Letter.* On or prior to the date that the Securities are first sold pursuant to the terms of this Agreement and within three (3) Trading Days after each Representation Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit D for which no waiver is applicable, the Company shall cause its independent accountants (and any other independent accountants whose report is included in the Prospectus) to furnish the Placement Agent letters (the "Comfort Letters"), dated the date the Comfort Letter is delivered, in form and substance reasonably satisfactory to the Placement Agent, (i) confirming that they are an independent registered public accounting firm within the meaning of the Securities Act, the Exchange Act and the PCAOB, and (ii) stating, as of such date, the conclusions and findings of such firm with respect to the financial information and other matters ordinarily covered by accountants' "comfort letters" to underwriters in connection with registered public offerings.

(r) *Market Activities.* The Company will not, directly or indirectly, (i) take any action designed to cause or result in, or that constitutes or would reasonably be expected to constitute, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities, or (ii) sell, bid for, or purchase the Securities in violation of Regulation M, or pay anyone any compensation for soliciting purchases of the Securities to be issued and sold pursuant to this Agreement other than the Placement Agent; *provided, however*, that the Company may bid for and purchase shares of its Common Stock in accordance with Rule 10b-18 under the Exchange Act.

(s) *Securities Act and Exchange Act.* The Company will use commercially reasonable efforts to comply with all requirements imposed upon it by the Securities Act and the Exchange Act as from time to time in force, so far as necessary to permit the continuance of sales of, or dealings in, the Placement Securities as contemplated by the provisions hereof and the Prospectus.

(t) *No Offer to Sell.* Other than the Prospectus or a free writing prospectus (as defined in Rule 405 under the Securities Act) approved in advance in writing by the Company and the Placement Agent in its capacity as principal or agent hereunder, neither the Placement Agent nor the Company (including its agents and representatives, other than the Placement Agent in its capacity as such) will make, use, prepare, authorize, approve or refer to any written communications (as defined in Rule 405 under the Securities Act), required to be filed with the Commission, that constitutes an offer to sell or solicitation of an offer to buy shares of Common Stock hereunder.

(u) *Sarbanes-Oxley Act.* The Company and its Subsidiaries will use commercially reasonable efforts to comply with all effective applicable provisions of the Sarbanes-Oxley Act of 2002.

SECTION 8. Payment of Expenses. The Company will pay the following expenses incident to the performance of its obligations under this Agreement, including (i) the preparation, printing and filing of the Registration Statement (including financial statements and exhibits) as originally filed and of each amendment and supplement thereto, (ii) the preparation, issuance and delivery of the certificates for the Placement Securities to the Placement 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 Securities to the Placement Agent, (iii) the fees and disbursements of the counsel, accountants and other advisors to the Company, (iv)(a) the qualification or exemption of the Placement Securities under securities laws in accordance with the provisions of Section 7(e) hereof, including filing fees and the actual, reasonable and documented fees and (b) disbursements of counsel for the Placement Agent in connection therewith and in connection with the preparation of the Blue Sky Survey and any supplements thereto, (v)

the printing and delivery to the Placement Agent of copies of any Permitted Free Writing Prospectus (as defined below) and the Prospectus and any amendments or supplements thereto and any costs associated with electronic delivery of any of the foregoing by the Placement Agent to investors, (vi) the fees and expenses of the transfer agent and registrar for the Securities, (vii)(a) the filing fees incident to, and (b) the actual, reasonable and documented fees and disbursements of counsel to the Placement Agent in connection with, the review by FINRA of the terms of the sale of the Securities, (viii) the fees and expenses incurred in connection with the listing of the Placement Securities on the Nasdaq, (ix) the actual, reasonable and documented fees and disbursements of counsel for the Placement Agent, and (x) the actual, reasonable and documented costs and expenses of the Placement Agent; *provided*, that the fees set forth in Subsection (iv)(b), (vii)(b), (ix) and (x) of this Section 8 shall not exceed \$50,000 in the aggregate.

SECTION 9. Conditions of the Placement Agent's Obligations. The obligations of the Placement Agent hereunder with respect to a Placement will be subject to the continuing accuracy and completeness of the representations and warranties of the Company contained in this Agreement or in certificates of any officer of the Company or any Subsidiary of the Company delivered pursuant to the provisions hereof, to the performance by the Company of its covenants and other obligations hereunder, and to the following further conditions:

(a) *Opinions of Company Corporate Counsel and Counsel to the Placement Agent*. On or prior to the date that Securities are first sold pursuant to the terms of this Agreement the Company shall furnish to the Placement Agent the opinion, addressed to the Placement Agent, of Company Corporate Counsel, in form and substance reasonably satisfactory to the Placement Agent and its counsel, dated the date that the opinion is required to be delivered, in form and substance satisfactory to the Placement Agent. Unless waived by the Placement Agent, Counsel to the Placement Agent, shall furnish to the Placement Agent an opinion in form and substance reasonably satisfactory to the Placement Agent dated the date that the opinion is required to be delivered.

(b) *Effectiveness of Registration Statement*. The Registration Statement and any Rule 462(b) Registration Statement shall have become effective and shall be available for (i) all sales of Placement Securities sold pursuant to all prior Placement Notices and (ii) the sale of all Placement Securities contemplated to be sold by any Placement Notice.

(c) *No Material Notices*. None of the following events shall have occurred and be continuing: (i) receipt by the Company or any of its Subsidiaries of any request for additional information from the Commission 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; (ii) the issuance by the Commission 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 with respect to the suspension of the qualification or exemption from qualification of any of the Placement Securities for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose; (iv) the occurrence of any event that makes any material statement made in the Registration Statement or the Prospectus, or any Issuer Free Writing Prospectus, or any material document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires the making of any changes in the Registration Statement, the Prospectus, or any Issuer Free Writing Prospectus, or such 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 and any Issuer Free Writing 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.

(d) *No Misstatement or Material Omission.* The Placement Agent shall not have advised the Company that the Registration Statement contains an untrue statement of fact that in the Placement Agent's reasonable opinion is material, or omits to state a fact that in the Placement Agent's reasonable opinion is material and is required to be stated therein or is necessary to make the statements therein not misleading, or that the Prospectus, or any Issuer Free Writing Prospectus or any amendment or supplement thereto, contains an untrue statement of fact that in the Placement Agent's reasonable opinion is material, or omits to state a fact that in the Placement Agent's reasonable opinion is material and is required to be stated therein or is necessary to make the statements therein, in the light of the circumstances in which they were made, not misleading.

(e) *Material Changes.* Except as contemplated in the Prospectus, or disclosed in the Company's reports filed with the Commission, there shall not have been any Material Adverse Effect on the Company and its Subsidiaries considered as one enterprise, that, in the reasonable judgment of the Placement Agent, is so material as to make it impracticable or inadvisable to proceed with the offering of the Placement Securities on the terms and in the manner contemplated in the Prospectus.

(f) *Representation Certificate.* The Placement Agent shall have received the certificate required to be delivered pursuant to Section 7(o) on or before the date on which delivery of such certificate is required pursuant to Section 7(o).

(g) *Legal Opinions and Negative Assurance Letter.* The Placement Agent shall have received the opinion and negative assurance letter of Company Corporate Counsel required to be delivered pursuant to Section 7(p) on or before the date on which delivery of such opinions and negative assurance letter is required pursuant to Section 7(p).

(h) *Accountant's Comfort Letter.* The Placement Agent shall have received the Comfort Letter required to be delivered pursuant Section 7(q) on or before the date on which such delivery of such letter is required pursuant to Section 7(q).

(i) *Secretary's Certificate.* On the date of this Agreement, the Placement Agent shall have received a certificate, signed on behalf of the Company by its corporate Secretary, in form and substance reasonably satisfactory to the Placement Agent and its counsel.

(j) *Approval for Listing.* The Placement Securities shall either have been (i) approved for listing on the Nasdaq, subject only to notice of issuance, or (ii) the Company shall have submitted a notification of listing of the Placement Securities on the Nasdaq at, or prior to, the issuance of any Placement Notice.

(k) *No Suspension.* Trading in the Securities shall not have been suspended on the Nasdaq.

(l) *Additional Documents.* On each date on which the Company is required to deliver a certificate pursuant to Section 7(o), counsel for the Placement Agent shall have been furnished with such appropriate further information and documents as they shall have reasonably requested for the purpose of enabling them to pass upon the issuance and sale of the Securities as herein contemplated, or in order to evidence the accuracy of any of the representations or warranties, or the fulfillment of any of the conditions, contained in this Agreement.

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

(n) *Termination of Agreement.* If any condition specified in this Section 9 shall not have been fulfilled when and as required to be fulfilled, this Agreement may be terminated by the Placement Agent by notice to the Company, and such termination shall be without liability of any party to any other party except as provided in Section 7 hereof and except that, in the case of any termination of this Agreement, Sections 6, 10, 11 and 19 hereof shall survive such termination and remain in full force and effect.

(o) *Maximum Amount.* The Company will not instruct the Placement Agent to sell or otherwise attempt to sell Securities in excess of the Maximum Amount.

SECTION 10. Indemnity and Contribution by the Company and the Placement Agent.

(a) *Indemnification by the Company.* The Company agrees to indemnify, defend and hold harmless the Placement Agent and any person who controls the Placement Agent within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, from and against any loss, expense, liability, damage or claim (including the reasonable cost of investigation) which, jointly or severally, the Placement Agent or any controlling person may incur under the Securities Act, the Exchange Act or otherwise, insofar as such loss, expense, liability, damage or claim arises out of or is based upon (1) 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, (2) 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; *except*, in the case of each of clauses (1) and (2), insofar as any such loss, expense, liability, damage or claim arises out of or is based upon and in conformity with information furnished in writing to the Placement Agent by the Company expressly for use in the Prospectus Supplement or any Issuer Free Writing Prospectus (that information being limited to that described in Section 10(b) hereof). The indemnity agreement set forth in this Section 10(a) shall be in addition to any liability which the Company may otherwise have. If any action is brought against the Placement Agent or any controlling person in respect of which indemnity may be sought against the Company pursuant to the foregoing paragraph of this Section 10(a), the Placement Agent shall promptly notify the Company, as the case may be, in writing of the institution of such action, and the Company, as the case may be, shall if it so elects, assume the defense of such action, including the employment of counsel and payment of expenses; *provided, however*, that any failure or delay to so notify the Company, as the case may be, will not relieve the Company of any obligation hereunder, except to the extent that its ability to defend is materially prejudiced by such failure or delay. The Placement Agent or such controlling person shall have the right to employ its or their own counsel in any such case, but the fees and expenses of such counsel shall be at the expense of the Placement Agent or such controlling person unless the employment of such counsel shall have been authorized in writing by the Company, as the case may be, in connection with the defense of such action, or the Company shall not have employed counsel reasonably satisfactory to the Placement Agent or such controlling person, as the case may be, to have charge of the defense of such action within a reasonable time or such indemnified party or parties shall have reasonably concluded (based on the advice of counsel) that there may be defenses available to it or them which are different from or additional to those available to the Company (in which case the Company shall not have the right to direct the defense of such action on behalf of the indemnified party or parties), in any of which events such actual, reasonable and documented fees and expenses shall be borne by the Company and paid as incurred (it being understood, however, that the Company shall not be liable for the expenses of more than one separate firm of attorneys for the Placement Agent or such controlling persons in any one action or series of related actions in the same jurisdiction (other than local counsel in any such jurisdiction) representing the indemnified parties who are parties to such action). Anything in this paragraph to the contrary notwithstanding, the Company shall not be liable for any settlement of any such claim or action effected without its consent.

(b) *Indemnification by the Placement Agent.* The Placement Agent agrees to indemnify, defend and hold harmless the Company, the Company's directors, the Company's officers that signed the Registration Statement, any person who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, from and against any loss, expense, liability, damage or claim (including the reasonable cost of investigation) which, jointly or severally, the Company or any such person may incur under the Securities Act, the Exchange Act or otherwise, insofar as such loss, expense, liability, damage or claim arises out of or is based upon (1) 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, (2) 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, *except* in the case of each of the clauses (1) and (2), insofar as such untrue statement or alleged untrue statement or omission or alleged omission was made in such Registration Statement, Issuer Free Writing Prospectus or Prospectus in reliance upon and in conformity with information furnished in writing by the Placement Agent to the Company expressly for use therein. The statements set forth in the seventh and ninth paragraphs under the caption "Plan of Distribution" in the Prospectus (to the extent such statements relate to the Placement Agent) constitute the only information furnished by or on behalf of the Placement Agent to the Company for the purposes of Section 6(a) and this Section 10. The indemnity agreement set forth in this Section 10(b) shall be in addition to any liabilities that the Placement Agent may otherwise have.

If any action is brought against the Company or any such person in respect of which indemnity may be sought against the Placement Agent pursuant to the foregoing paragraph, the Company or such person shall promptly notify the Placement Agent in writing of the institution of such action and the Placement Agent shall if it so elects assume the defense of such action, including the employment of counsel and payment of expenses; *provided, however*, that any failure or delay to so notify the Placement Agent will not relieve the Placement Agent of any obligation hereunder, except to the extent that its ability to defend is materially prejudiced by such failure or delay. The Company or such person shall have the right to employ its or their own counsel in any such case, but the fees and expenses of such counsel shall be at the expense of the Company or such person unless the employment of such counsel shall have been authorized in writing by the Placement Agent in connection with the defense of such action or the Placement Agent shall not have employed counsel reasonably satisfactory to the Company or such person, as the case may be, to have charge of the defense of such action within a reasonable time or such indemnified party or parties shall have reasonably concluded (based on the advice of counsel) that there may be defenses available to it or them which are different from or additional to those available to the Placement Agent (in which case the Placement Agent shall not have the right to direct the defense of such action on behalf of the indemnified party or parties), in any of which events such actual, reasonable and documented fees and expenses shall be borne by the Placement Agent and paid as incurred (it being understood, however, that the Placement Agent shall not be liable for the expenses of more than one separate firm of attorneys in any one action or series of related actions in the same jurisdiction (other than local counsel in any such jurisdiction) representing the indemnified parties who are parties to such action). Anything in this paragraph to the contrary notwithstanding, the Placement Agent shall not be liable for any settlement of any such claim or action effected without its written consent.

(c) *Contribution.* If the indemnification provided for in this Section 10 is unavailable or insufficient to hold harmless an indemnified party under subsections (a) and (b) of this Section 10 in respect of any losses, expenses, liabilities, damages or claims referred to therein, then each applicable indemnifying party, in lieu of indemnifying such indemnified party, shall contribute to the amount paid or payable by such indemnified party as a result of such losses, expenses, liabilities, damages or claims (i) in such proportion as is appropriate to reflect the relative benefits received by the Company and by the Placement

Agent, each from the offering of the Securities, or (ii) if (but only if) the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company and the Placement Agent in connection with the statements or omissions which resulted in such losses, expenses, liabilities, damages or claims, as well as any other relevant equitable considerations. The relative benefits received by the Company shall be deemed to be equal to the gross proceeds from the offering of Securities (before deducting discounts and expenses) received by each of them and benefits received by the Placement Agent shall be deemed to be equal to the discounts and commissions received by the Placement Agent. The relative fault of the Company and of the Placement Agent shall be determined by reference to, among other things, whether the untrue statement or alleged untrue statement of a material fact or omission or alleged omission relates to information supplied by the Company or by the Placement Agent and the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The amount paid or payable by a party as a result of the losses, claims, damages and liabilities referred to above shall be deemed to include any documented legal or other fees or expenses actually and reasonably incurred by such party in connection with investigating or defending any claim or action.

(d) The Company and the Placement Agent agree that it would not be just and equitable if contribution pursuant to this Section 10 were determined by *pro rata* allocation or by any other method of allocation which does not take account of the equitable considerations referred to in clause (i) and, if applicable, clause (ii) of subsection (c) above. Notwithstanding the provisions of this Section 10, the Placement Agent shall not be required to contribute any amount in excess of the discounts and commissions applicable to the Securities sold by the Placement Agent and the liability of the Company pursuant to this Section 10 shall not exceed the gross proceeds received by the Company (before deducting discounts and expenses). No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

SECTION 11. Representations, Warranties and Agreements to Survive Delivery. All representations, warranties and agreements contained in this Agreement or in certificates of officers of the Company or any of its Subsidiaries submitted pursuant hereto, shall remain operative and in full force and effect, regardless of any investigation made by or on behalf of the Placement Agent or controlling person, or by or on behalf of the Company, and shall survive delivery of the Securities to the Placement Agent.

SECTION 12. Termination of Agreement.

(a) *Termination by the Company.* The Company shall have the right, by giving written notice as hereinafter specified, to terminate this Agreement in its sole discretion at any time after the date of this Agreement. Upon termination of this Agreement pursuant to this Section 12(b), any outstanding Placement Notices shall also be terminated.

(b) *Termination by the Placement Agent.* The Placement Agent shall have the right, by giving written notice as hereinafter specified, to terminate this Agreement in its sole discretion at any time after the date of this Agreement.

(c) *Automatic Termination.* Unless earlier terminated pursuant to this Section 12, this Agreement shall automatically terminate upon the issuance and sale of all of the Securities through the Placement Agent on the terms and subject to the conditions set forth herein.

(d) *Continued Force and Effect.* This Agreement shall remain in full force and effect unless terminated pursuant to Sections 12(a), (b) or (c) above or otherwise by mutual agreement of the parties.

(e) *Effectiveness of Termination.* Any termination of this Agreement shall be effective on the date specified in such notice of termination. If such termination shall occur prior to the Settlement Date for any sale of Placement Securities, such Placement Securities shall settle in accordance with the provisions of this Agreement.

(f) *Liabilities.* If this Agreement is terminated pursuant to this Section 12, such termination shall be without liability of any party to any other party except as provided in Section 8 hereof, and except that, in the case of any termination of this Agreement, Section 6, Section 10, Section 11 and Section 19 hereof shall survive such termination and remain in full force and effect.

SECTION 13. *Notices.* Except as otherwise provided in this Agreement, all notices and other communications hereunder shall be in writing and shall be deemed to have been duly given if mailed or transmitted by any standard form of telecommunication. Notices to the Placement Agent shall be directed to the Placement Agent at JMP Securities LLC, 600 Montgomery Street, Suite 1100, San Francisco, California 94111, Facsimile: (415) 835-8920, Attention: Equity Securities, with a copy to Duane Morris LLP, 1540 Broadway, New York, NY 10036, Attention: James T. Seery, email: jtseery@duanemorris.com and notices to the Company shall be directed to it at the offices of the Company at Altimmune, Inc., 910 Clopper Road, Suite 201S, Gaithersburg, MD, Attention: William Brown, with a copy to Goodwin Procter LLP, The New York Times Building, 620 Eighth Avenue, New York, NY 10018 Attention: Joseph C. Theis, Esq.

SECTION 14. *Parties.* This Agreement shall inure to the benefit of and be binding upon the Placement Agent, the Company and their respective successors. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person, firm or corporation, other than the Placement Agent, the Company and their respective successors and the controlling persons and officers and directors referred to in Section 10 and their heirs and legal representatives, any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision herein contained. This Agreement and all conditions and provisions hereof are intended to be for the sole and exclusive benefit of the Placement Agent, the Company and their respective successors, and said controlling persons and officers and directors and their heirs and legal representatives, and for the benefit of no other person, firm or corporation. No purchaser of Securities from the Placement Agent shall be deemed to be a successor by reason merely of such purchase.

SECTION 15. *Adjustments for Stock Splits.* The parties acknowledge and agree that all stock-related numbers contained in this Agreement shall be adjusted to take into account any stock split, stock dividend or similar event effected with respect to the Securities.

SECTION 16. *Governing Law, Time and Waiver of Jury Trial.* THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK. SPECIFIED TIMES OF DAY REFER TO NEW YORK CITY TIME. The Company and the Placement Agent each hereby irrevocably waives any right it may have to a trial by jury in respect of any claim based upon or arising out of this Agreement or any transactions contemplated hereby.

SECTION 17. *Effect of Headings.* The Section and Exhibit headings herein are for convenience only and shall not affect the construction hereof.

SECTION 18. *Permitted Free Writing Prospectuses.* The Company represents, warrants and agrees that, unless it obtains the prior consent of the Placement Agent, which consent shall not be unreasonably withheld, conditioned or delayed, and the Placement 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 Securities that would

constitute an Issuer Free Writing Prospectus, or that would otherwise constitute a “free writing prospectus,” as defined in Rule 405 under the Securities Act, required to be filed with the Commission. Any such free writing prospectus consented to by the Placement 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 under the Securities Act, and has complied and will comply with the requirements of Rule 433 under the Securities Act applicable to any Permitted Free Writing Prospectus, including timely filing with the Commission where required, legending and record keeping. For the purposes of clarity, the parties hereto agree that all free writing prospectuses, if any, listed in Exhibit E hereto, as modified from time to time, are Permitted Free Writing Prospectuses.

SECTION 19. Absence of Fiduciary Relationship. The Company acknowledges and agrees that:

(a) The Placement Agent is acting solely as agent and/or principal in connection with the public offering of the Securities 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 the Placement 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 the Placement Agent has advised or is advising the Company on other matters, and the Placement Agent has no obligation to the Company with respect to the transactions contemplated by this Agreement except the obligations expressly set forth in this Agreement;

(b) the public offering price of the Securities was not established by the Placement Agent; 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 Placement Agent has not provided any legal, accounting, regulatory or tax advice with respect to 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;

(d) it is aware that the Placement Agent and its affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and the Placement Agent has no obligation to disclose such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship or otherwise; and

(e) it waives, to the fullest extent permitted by law, any claims it may have against the Placement Agent for breach of fiduciary duty or alleged breach of fiduciary duty and agrees that the Placement Agent shall not 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.

[Signature page follows]



If the foregoing is in accordance with your understanding of our agreement, please sign and return to the Company a counterpart hereof, whereupon this instrument, along with all counterparts, will become a binding agreement by and among the Placement Agent and the Company in accordance with its terms.

Very truly yours,

**ALTIMMUNE, INC.**

By: /s/ Vipin Garg

Name: Vipin Garg

Title: President and Chief Executive Officer

CONFIRMED AND ACCEPTED, as of the date first above written:

**JMP SECURITIES LLC**

By /s/ David Kellman

Name: David Kellman

Title: Managing Director, Head of Healthcare Investment Banking

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SCHEDULE A

SUBSIDIARIES

- (1) Mustang Merger Sub II LLC (Delaware)
- (2) Altimune UK Limited (United Kingdom)
- (3) Spitfire Pharma, LLC (Delaware)

EXHIBIT A

FORM OF PLACEMENT NOTICE

From: [ ]

Cc: [ ]

To: [ ]

Subject: Equity Distribution Agreement—Placement Notice

Pursuant to the terms and subject to the conditions contained in the Equity Distribution Agreement between Altimmune, Inc. (the "Company") and JMP Securities LLC (the "Placement Agent") dated March 27, 2020 (the "Agreement"), I hereby request on behalf of the Company that the Placement Agent sell up to [ ] shares of the Company's common stock, par value \$0.0001 per share, at a minimum market price of \$[ ] per share.

[ADDITIONAL SALES PARAMETERS MAY BE ADDED, SUCH AS THE MAXIMUM AGGREGATE OFFERING PRICE, THE TIME PERIOD IN WHICH SALES ARE REQUESTED TO BE MADE, SPECIFIC DATES THE SHARES MAY NOT BE SOLD ON, THE MANNER IN WHICH SALES ARE TO BE MADE BY THE PLACEMENT AGENT, AND/OR THE CAPACITY IN WHICH THE PLACEMENT AGENT MAY ACT IN SELLING SHARES (AS PRINCIPAL, AGENT, OR BOTH)]

EXHIBIT B

AUTHORIZED INDIVIDUALS FOR PLACEMENT NOTICES

**JMP Securities LLC**

Name

Raymond Han, Director  
Adrienne Tam, Chief Compliance Officer  
Andrew Mertz, Managing Director

Email

rhan@jmpsecurities.com  
atam@jmpsecurities.com  
amertz@jmpsecurities.com

**Altimune, Inc.**

Name

Vipin Garg  
William Brown

Email

vgarg@altimmune.com  
wbrown@altimmune.com

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EXHIBIT C

COMPENSATION

The Placement Agent shall be paid compensation equal to 3.0% of the gross proceeds from the sales of Securities pursuant to the terms of this Agreement.

OFFICER CERTIFICATE

The undersigned Vipin Garg and William Brown, are the Chief Executive Officer and Chief Financial Officer, respectively, of Altimmune, Inc., a Delaware corporation (the "Company"). The undersigned hereby execute this Certificate in connection with the closing, held as of the date hereof, pursuant to the terms of that certain Equity Distribution Agreement, dated March 27, 2020 (the "Equity Distribution Agreement"), among the Company and JMP Securities LLC. Capitalized terms used herein without definition shall have the meanings given to such terms in the Equity Distribution Agreement.

The undersigned each hereby further certifies, solely in each of their respective capacities as officers of the Company and not in their individual capacities, that:

1. The representations and warranties of the Company in the Equity Distribution Agreement are true and correct, as if made on and as of the date hereof, and the Company has complied with all of its obligations thereunder and satisfied all of the conditions on their part to be performed or satisfied at or prior to the date hereof;
2. No stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto has been issued and no proceedings for that purpose have been instituted or are pending or, to the knowledge of the undersigned, threatened under the Securities Act of 1933, as amended;
3. Subsequent to the respective dates as of which information is given in the Registration Statement or the Prospectus, there has not been (A) any Material Adverse Effect, (B) any transaction that is material to the Company and its Subsidiaries taken as a whole, (C) any obligation, direct or contingent, that is material to the Company and its Subsidiaries, taken as a whole, incurred by the Company or the Subsidiaries, (D) any change in the capital stock or outstanding indebtedness of the Company or any Subsidiary that is material to the Company and its Subsidiaries, taken as a whole, or (E) any loss or damage (whether or not insured) to the Properties which has been sustained or will have been sustained which could reasonably be expected to have a Material Adverse Effect; and
4. Each of Goodwin Procter LLP and Duane Morris LLP is entitled to rely on this Officers' Certificate in connection with the opinion that each firm is rendering pursuant to the Equity Distribution Agreement.

*[Signature page follows]*

IN WITNESS WHEREOF, the undersigned have signed their names on this [ ] day of [ ], 20[ ].

**ALTIMMUNE, INC.**

By: \_\_\_\_\_  
Name:  
Title:

By: \_\_\_\_\_  
Name:  
Title:

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EXHIBIT E

ISSUER FREE WRITING PROSPECTUSES

None.





Goodwin Procter LLP  
100 Northern Avenue  
Boston, MA 02210

goodwinlaw.com  
+1 617 570 1000

March 27, 2020

Altimune, Inc.  
910 Clopper Road, Suite 201S  
Gaithersburg, Maryland 20878

Re: Securities Registered under Registration Statement on Form S-3

We have acted as counsel to you in connection with your filing of a prospectus supplement (the "Prospectus Supplement") filed on March 27, 2020 with the Securities and Exchange Commission (the "Commission") pursuant to Rule 424 under the Securities Act of 1933, as amended (the "Securities Act"), relating to the offering by Altimune, Inc., a Delaware corporation (the "Company") of up to \$50,000,000 in shares (the "Shares") of the Company's common stock, par value \$0.0001 per share ("Common Stock") covered by the Registration Statement on Form S-3 (File No. 333- 230723) (as amended or supplemented, the "Registration Statement") filed on April 4, 2019 with the Commission pursuant to the Securities Act. The Registration Statement was declared effective by the Commission on April 12, 2019. The Shares are being offered and sold by the placement agent named in, and pursuant to, equity distribution agreement among the Company and such placement agent.

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinion set forth below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinion set forth below, on certificates of officers of the Company.

For purposes of the opinion set forth below, we have assumed that no event occurs that causes the number of authorized shares of Common Stock available for issuance by the Company to be less than the number of then unissued Shares that may be issued.

For purposes of the opinion set forth below, we refer to the following as "Future Approval and Issuance": (a) the approval by the Company's board of directors (or a duly authorized committee of the board of directors) of the issuance of the Shares (the "Approval") and (b) the issuance of the Shares in accordance with the Approval and the receipt by the Company of the consideration (which shall not be less than the par value of such Shares) to be paid in accordance with the Approval.

The opinion set forth below is limited to the Delaware General Corporation Law.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon Future Approval and Issuance, will be validly issued, fully paid and nonassessable.

This opinion is being furnished to you for submission to the Commission as an exhibit to the Company's Current Report on Form 8-K relating to the Shares (the "Current Report"), which is incorporated by reference in the Registration Statement. We hereby consent to the filing of this opinion letter as an exhibit to the Current Report and its incorporation by reference and the reference to our firm in that report. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/s/ GOODWIN PROCTER LLP

GOODWIN PROCTER LLP