

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 8-K**

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

Date of Report (Date of earliest event reported): **January 26, 2022**

**APPLIED THERAPEUTICS, INC.**

(Exact name of registrant as specified in its charter)

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

**001-38898**  
(Commission File Number)

**81-3405262**  
(I.R.S. Employer Identification No.)

**545 Fifth Avenue, Suite 1400**  
**New York, NY 10017**  
(Address of Principal Executive Offices)

**10017**  
(Zip Code)

Registrant's telephone number, including area code: **(212) 220-9226**

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

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

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common stock	APLT	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 2.02. Results of Operations and Financial Condition.

On January 26, 2022, Applied Therapeutics, Inc. (the “Company”) filed with the Securities and Exchange Commission (the “SEC”) a Prospectus Supplement (defined below) in connection with the ATM Program (defined below), which disclosed that as of December 31, 2021, the Company had approximately \$81 million of cash, cash equivalents and marketable securities. This preliminary financial information is based upon the Company’s current estimates and is subject to completion of financial and operating closing procedures for the year ended December 31, 2021, and therefore subject to change.

The information provided in this Item 2.02 of this Current Report on Form 8-K shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference into any of the Company’s filings under the Securities Act of 1933, as amended (the “Securities Act”), or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

## Item 8.01. Other Events.

On January 26, 2022, the Company entered into an equity distribution agreement (the “Equity Distribution Agreement” and such transactions contemplated thereby, the “ATM Program”) with Cowen and Company, LLC (the “Sales Agent”), pursuant to which the Company may offer and sell, from time to time, shares (the “Shares”) of its common stock, par value \$0.0001 per share (the “Common Stock”) having an aggregate offering price of up to \$100.0 million through the Sales Agent, acting as agent and/or principal.

Pursuant to the Equity Distribution Agreement, the Shares may be offered and sold through the Sales Agent in sales deemed to be “at the market offerings” as defined in Rule 415 under the Securities Act, in ordinary brokers’ transactions, to or through a market maker, on or through The Nasdaq Global Market or any other market venue where the securities may be traded, in the over-the-counter market, in privately negotiated transactions or through a combination of any such methods of sale. Under the terms of the Equity Distribution Agreement, the Company may also sell the Shares directly to the Sales Agent, acting as principal, at prices agreed upon at the time of sale. Under the Equity Distribution Agreement, the Sales Agent will be entitled to compensation of up to 3% of the gross offering proceeds of all Shares sold through it pursuant to the Equity Distribution Agreement. The Company has no obligation to sell any of the Shares under the Equity Distribution Agreement and may at any time and from time to time suspend the offering of the Shares under the Equity Distribution Agreement.

The Equity Distribution Agreement contains customary representations, warranties and covenants by the Company. The Company also agreed to provide indemnification and contribution to the Sales Agent against certain liabilities, including civil liabilities under the Securities Act. From time to time, in the ordinary course of business, the Sales Agent and its affiliates have provided, and in the future may provide, various financial advisory and investment banking services to the Company, for which they have received or will receive customary fees and reimbursement of expenses.

Any sales of Shares under the Equity Distribution Agreement will be made pursuant to the Company’s shelf registration statement on Form S-3, as amended by pre-effective amendment no. 1 (File No. 333-238948), including the related prospectus, filed with the SEC on June 5, 2020 and declared effective on June 15, 2020, as supplemented by the prospectus supplement, dated January 26, 2022 (the “Prospectus Supplement”), and any applicable additional prospectus supplements related to the ATM Program that form a part of the Registration Statement.

The Equity Distribution Agreement and related ATM Program replaces the Company’s prior equity distribution agreement dated as of June 12, 2020 (the “Prior Agreement”).

The foregoing description of certain provisions of the Equity Distribution Agreement does not purport to be complete and is qualified in its entirety by reference to the Equity Distribution Agreement, which is filed as Exhibit 1.1 to this Current Report on Form 8-K and is incorporated herein by reference.

## Item 9.01. Financial Statements and Exhibits.

### (d) Exhibits:

The following exhibits are attached with this current report on Form 8-K:

<u>Exhibit No.</u>	<u>Description</u>
<a href="#">1.1</a>	<a href="#">Equity Distribution Agreement, dated January 26, 2022, by and between the Company and Cowen and Company, LLC.</a>
<a href="#">5.1</a>	<a href="#">Opinion of Skadden, Arps, Slate, Meagher &amp; Flom LLP regarding the legality of the Shares.</a>
<a href="#">23.1</a>	<a href="#">Consent of Skadden, Arps, Slate, Meagher &amp; Flom LLP (included in Exhibit 5.1).</a>
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

**SIGNATURE**

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.

**APPLIED THERAPEUTICS, INC.**

Dated: January 26, 2022

By: /s/ Charles Silberstein

Name: Charles Silberstein, M.D.

Title: Chief Financial Officer

---

Applied Therapeutics, Inc.

Up to \$100,000,000  
of  
Common Stock  
(\$0.0001 par value)

Equity Distribution Agreement

New York, New York  
January 26, 2022

Cowen and Company, LLC  
599 Lexington Avenue  
New York, New York 10022

Ladies and Gentlemen:

Applied Therapeutics, Inc., a corporation organized under the laws of the State of Delaware (the “Company”), confirms its agreement (this “Agreement”) with Cowen and Company, LLC (the “Manager”) as follows. To the extent there is a single Manager, all references to the “Managers” and the “Designated Manager” as used herein shall refer only to Cowen and Company, LLC, and the terms “Managers” shall mean either the singular or the plural as the context requires.

As used in this Agreement and any Terms Agreement:

“Applicable Time” shall mean, with respect to any Shares, the time of sale of such Shares pursuant to this Agreement or any relevant Terms Agreement.

“Base Prospectus” shall mean the base prospectus referred to in Section 2(a) below contained in the Registration Statement at the Execution Time.

“Business day” shall mean any day other than a Saturday, a Sunday or a legal holiday or a day on which banking institutions or trust companies are authorized or obligated by law to close in New York City.

“Designated Manager” shall mean, as of any given time, a Manager that the Company has designated as sales agent to sell Shares pursuant to the terms of this Agreement.

“Disclosure Package” shall mean (i) the Base Prospectus, (ii) the Prospectus Supplement, (iii) the most recently filed Interim Prospectus Supplement, if any, (iv) the Issuer Free Writing Prospectuses, if any, identified in Schedule I hereto, (v) the public offering price of Shares sold at the relevant Applicable Time as specified in a Terms Agreement and (vi) any other Free Writing Prospectus that the parties hereto shall hereafter expressly agree in writing to treat as part of the Disclosure Package.

“Effective Date” shall mean each date and time that the Registration Statement and any post-effective amendment or amendments thereto and any Rule 462(b) Registration Statement became or becomes effective.

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

“Execution Time” shall mean the date and time that this Agreement is executed and delivered by the parties hereto.

“Free Writing Prospectus” shall mean a free writing prospectus, as defined in Rule 405.

“Interim Prospectus Supplement” shall mean the prospectus supplement relating to the Shares prepared and filed pursuant to Rule 424(b) from time to time as provided by Section 4(q) of this Agreement.

“Issuer Free Writing Prospectus” shall mean an issuer free writing prospectus, as defined in Rule 433.

“Prospectus” shall mean the Base Prospectus, as supplemented by the Prospectus Supplement and the most recently filed Interim Prospectus Supplement (if any).

“Prospectus Supplement” shall mean the most recent prospectus supplement relating to the Shares that was first filed pursuant to Rule 424(b) at or prior to the Execution Time.

“Registration Statement” shall mean the registration statement referred to in Section 2(a) below, including the exhibits, schedules and financial statements and any prospectus supplement relating to the Shares that is filed with the Securities and Exchange Commission (the “SEC”) pursuant to Rule 424(b) and deemed part of such registration statement pursuant to Rule 430B, as amended on each Effective Date and, in the event any post-effective amendment thereto or any Rule 462(b) Registration Statement becomes effective, shall also mean such registration statement as so amended or such Rule 462(b) Registration Statement, as the case may be.

“Rule 158,” “Rule 164,” “Rule 172,” “Rule 405,” “Rule 415,” “Rule 424,” “Rule 430B,” “Rule 433” and “Rule 462” refer to such rules under the Securities Act.

“Rule 462(b) Registration Statement” shall mean a registration statement and any amendments thereto filed pursuant to Rule 462(b) relating to the offering covered by the registration statement referred to in Section 2(a) hereof.

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

1. Description of Shares. The Company proposes to issue and sell through or to the Managers, as sales agents and/or principals, shares of the Company's common stock, \$0.0001 par value ("Common Stock"), having an aggregate offering price of up to \$100,000,000 (the "Shares"), from time to time during the term of this Agreement and on the terms set forth in Section 3 of this Agreement. The Company hereby appoints the Managers as exclusive agents of the Company for the purpose of making offers and sales of the Shares. The Company agrees that whenever it determines to sell the Shares directly to a Manager as principal, it will enter into a separate agreement (each, a "Terms Agreement") in substantially the form of Annex A hereto, relating to such sale in accordance with Section 3 of this Agreement.

2. Representations and Warranties. The Company represents and warrants to, and agrees with, each Manager at the Execution Time and on each such time the following representations and warranties are repeated or deemed to be made pursuant to Sections 3(g), 4(j) or 4(s) of this Agreement, as set forth below.

(a) The Company meets the requirements for use of Form S-3 under the Securities Act and has prepared and filed with the SEC a shelf registration statement on Form S-3, including a related Base Prospectus, for registration under the Securities Act of the offering and sale of the Shares and other securities of the Company. Such Registration Statement, including any amendments thereto filed prior to the Execution Time or prior to any such time this representation is repeated or deemed to be made, will become or has become effective and no stop order suspending the effectiveness of the Registration Statement has been issued under the Securities Act and, to the knowledge of the Company, no proceedings for that purpose have been instituted, are pending or are contemplated or threatened by the SEC, and any request on the part of the SEC for additional or supplemental information has been complied with. The Company shall file with the SEC the Prospectus Supplement relating to the Shares in accordance with Rule 424(b) promptly after the Execution Time (but in any event in the time period prescribed thereby). As filed, the Prospectus shall contain all information required by the Securities Act and the rules thereunder, and, except to the extent the Managers shall agree in writing to a modification, shall be in all substantive respects in the form furnished to the Managers prior to the Execution Time or prior to any such time this representation is repeated or deemed to be made. The Registration Statement, at the Execution Time, each such time this representation is repeated or deemed to be made, and at all times during which a prospectus is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 or any similar rule) in connection with any offer or sale of Shares, meets the requirements set forth in Rule 415(a)(1)(x). The initial Effective Date of the Registration Statement was not earlier than the date three years before the Execution Time. Any reference herein to the Registration Statement, the Base Prospectus, the Prospectus Supplement, any Interim Prospectus Supplement or the Prospectus shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-3 which were filed under the Exchange Act on or before the Effective Date of the Registration Statement or the issue date of the Base Prospectus, the Prospectus Supplement, any Interim Prospectus Supplement or the Prospectus, as the case may be; and any reference herein to the terms "amend," "amendment" or "supplement" with respect to the Registration Statement, the Base Prospectus, the Prospectus Supplement, any Interim Prospectus Supplement or the Prospectus shall be deemed to refer to and include the filing of any document under the Exchange Act after the Effective Date of the Registration Statement or the issue date of the Base Prospectus, the Prospectus Supplement, any Interim Prospectus Supplement or the Prospectus, as the case may be, deemed to be incorporated therein by reference. Notwithstanding the foregoing, the representations and warranties in this subsection shall not apply to statements in or omissions from the Registration Statement or any post-effective amendment or the Prospectus or any amendments or supplements thereto, made in reliance upon and in conformity with information furnished to the Company in writing by the Managers relating to the Managers expressly for use therein, it being understood and agreed that the only such information furnished by any Manager consists of the information described as such in Section 7(b) hereof.

(b) To the extent that the Registration Statement is not available for the sales of the Shares as contemplated by this Agreement, the Company shall file a new registration statement with respect to any additional shares of Common Stock necessary to complete such sales of the Shares and shall cause such registration statement to become effective as promptly as practicable. After the effectiveness of any such registration statement, all references to "Registration Statement" included in this Agreement shall be deemed to include such new registration statement, including all documents incorporated by reference therein pursuant to Item 12 of Form S-3, and all references to "Base Prospectus" included in this Agreement shall be deemed to include the final form of prospectus, including all documents incorporated therein by reference, included in any such registration statement at the time such registration statement became effective.

(c) On each Effective Date, at the Execution Time, at each deemed effective date with respect to the Managers pursuant to Rule 430B(f)(2) under the Securities Act, at each Applicable Time, at each Settlement Date (as defined below), at each Time of Delivery (as defined below) and at all times during which a prospectus is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 or any similar rule) in connection with any offer or sale of Shares, the Registration Statement complied and will comply in all material respects with the applicable requirements of the Securities Act and the Exchange Act and the respective rules thereunder and did not and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein not misleading; and on the date of any filing pursuant to Rule 424(b), at the Execution Time, at each Applicable Time, on each Settlement Date, at each Time of Delivery and at all times during which a prospectus is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 or any similar rule) in connection with any offer or sale of Shares, the Prospectus (together with any supplement thereto) complied and will comply in all material respects with the applicable requirements of the Securities Act and the Exchange Act and the respective rules thereunder and did not and 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, in the light of the circumstances under which they were made, not misleading; provided, however, that the Company makes no representations or warranties as to the information contained in or omitted from the Registration Statement or the Prospectus (or any supplement thereto) in reliance upon and in conformity with information furnished in writing to the Company by any Manager specifically for inclusion in the Registration Statement or the Prospectus (or any supplement thereto), it being understood and agreed that the only such information furnished by any Manager consists of the information described as such in Section 7(b) hereof.

(d) At the Execution Time, at each Applicable Time, at each Settlement Date and each Time of Delivery, the Disclosure Package does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The preceding sentence does not apply to statements in or omissions from the Disclosure Package based upon and in conformity with written information furnished to the Company by any Manager specifically for use therein, it being understood and agreed that the only such information furnished by any Manager consists of the information described as such in Section 7(b) hereof.

(e) The documents incorporated or deemed to be incorporated by reference in the Registration Statement and the Prospectus (i) at the time they were or hereafter are filed with the SEC, complied and will comply in all material respects with the requirements of the Exchange Act and the rules and regulations of the SEC thereunder and (ii) when read together with the other information in the Prospectus and the Disclosure Package at any Applicable Time and when read together with the other information in the Prospectus at the date of the Prospectus and at any Settlement Date or Time of Delivery, will 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 the light of the circumstances under which they were made, not misleading.

(f) (i) At the earliest time after the filing of the Registration Statement that the Company or another offering participant made a bona fide offer (within the meaning of Rule 164(h)(2)) of the Shares and (ii) as of the Execution Time and on each such time this representation is repeated or deemed to be made (with such date being used as the determination date for purposes of this clause (ii)), the Company was not and is not an Ineligible Issuer as defined in Rule 405, without taking account of any determination by the SEC pursuant to Rule 405 that it is not necessary that the Company be considered an Ineligible Issuer.

(g) Each Issuer Free Writing Prospectus does not include any information that conflicts with the information contained in the Registration Statement, including any document incorporated therein by reference and any prospectus supplement deemed to be a part thereof that has not been superseded or modified. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus based upon and in conformity with written information furnished to the Company by any Manager specifically for use therein, it being understood and agreed that the only such information furnished by or on behalf of any Manager consists of the information described as such in Section 7(b) hereof.



(h) The Registration Statement is not the subject of a pending proceeding or examination under Section 8(d) or 8(e) of the Securities Act, and the Company is not the subject of a pending proceeding under Section 8A of the Securities Act in connection with the offering of the Shares.

(i) *[Reserved]*.

(j) The Company has not entered into any other sales agency agreements or other similar arrangements with any agent or any other representative in respect of any at the market offering (within the meaning of Rule 415(a)(4) of the Securities Act) of the Shares that is in effect on the date hereof.

(k) The interactive data in the eXtensible Business Reporting Language (“XBRL”) included as an exhibit to the Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with SEC’s rules and guidelines applicable thereto.

(l) Each of the Company and its subsidiaries (i) has been duly incorporated and is validly existing as a corporation in good standing under the laws of the jurisdiction in which it is chartered or organized with full corporate power and authority to own or lease, as the case may be, and to operate its properties and conduct its business as described in the Registration Statement, the Disclosure Package and the Prospectus, and is duly qualified to do business as a foreign corporation and (ii) is in good standing under the laws of each jurisdiction which requires such qualification, except where the failure to be so qualified or in good standing would not reasonably be expected, individually or in the aggregate, to have a material adverse effect on the condition (financial or otherwise), prospects, earnings, business or properties of the Company and its subsidiaries, taken as a whole, whether or not arising from transactions in the ordinary course of business (a “Material Adverse Effect”).

(m) All the outstanding shares of capital stock of each subsidiary of the Company have been duly and validly authorized and issued and are fully paid and non-assessable, and, except as otherwise set forth in the Registration Statement, the Disclosure Package and the Prospectus, all outstanding shares of capital stock of the subsidiaries are owned by the Company either directly or through wholly owned subsidiaries free and clear of any perfected security interest or any other security interests, claims, liens or encumbrances.

(n) There is no franchise, contract or other document of a character required to be described in the Registration Statement, the Disclosure Package or the Prospectus, or to be filed as an exhibit thereto, which is not described or filed as required (and the Preliminary Prospectus contains in all material respects the same description of the foregoing matters contained in the Prospectus); and the statements in the Registration Statement, the Disclosure Package, the Prospectus, the Company's most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q, as applicable, under the headings "U.S. Federal Income Tax Considerations for Non-U.S. Holders," "Risk Factors—Risks Related to Regulatory Compliance," "Risk Factors—Risks Related to Our Intellectual Property" and "Business—Government Regulation and Product Approval" insofar as such statements summarize legal matters, agreements, documents or proceedings discussed therein, are accurate and fair summaries of such legal matters, agreements, documents or proceedings.

(o) This Agreement has been duly authorized, executed and delivered by the Company.

(p) The Company is not and, after giving effect to the offering and sale of the Shares and the application of the proceeds thereof as described in the Registration Statement, the Disclosure Package and the Prospectus will not be, an "investment company" as defined in the Investment Company Act of 1940, as amended.

(q) No consent, approval, authorization, filing with or order of any court or governmental agency or body is required in connection with the transactions contemplated herein, except such as have been obtained under the Securities Act, the listing rules of the Nasdaq Global Market and applicable rules of the Financial Industry Regulatory Authority, Inc. ("FINRA"), and such as may be required under the blue sky laws of any jurisdiction in connection with the purchase and distribution of the Shares by the Managers in the manner contemplated herein and in the Registration Statement, the Disclosure Package and the Prospectus.

(r) Neither the issue and sale of the Shares nor the consummation of any other of the transactions herein contemplated nor the fulfillment of the terms hereof will conflict with, result in a breach or violation of, or imposition of any lien, charge or encumbrance upon any property or assets of the Company or any of its subsidiaries pursuant to, (i) the charter or bylaws of the Company or any of its subsidiaries, (ii) the terms of any indenture, contract, lease, mortgage, deed of trust, note agreement, loan agreement or other agreement, obligation, condition, covenant or instrument to which the Company or any of its subsidiaries is a party or bound or to which its or their property is subject, or (iii) any statute, law, rule, regulation, judgment, order or decree applicable to the Company or any of its subsidiaries of any court, regulatory body, administrative agency, governmental body, arbitrator or other authority having jurisdiction over the Company or any of its subsidiaries or any of its or their properties, except in the case of clauses (ii) and (iii) for any such breach, violation or imposition as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(s) No holders of securities of the Company have rights to the registration of such securities under the Registration Statement, except for such rights as have been disclosed or effectively waived in connection with the Registration Statement.

(t) The consolidated historical financial statements and schedules of the Company and its consolidated subsidiaries included or incorporated by reference in the Registration Statement, the Disclosure Package and the Prospectus present fairly, in all material respects, the financial condition, results of operations and cash flows of the Company as of the dates and for the periods indicated, comply as to form in all material respects with the applicable accounting requirements of the Securities Act and have been prepared in conformity with generally accepted accounting principles in the United States applied on a consistent basis throughout the periods involved (except as otherwise noted therein). The selected financial data included or incorporated by reference in the Registration Statement, the Disclosure Package and the Prospectus fairly present, in all material respects, the information included therein shown therein on the basis stated in or incorporated by reference in the Registration Statement, Disclosure Package and the Prospectus.

(u) No action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries or its or their property is pending or, to the best knowledge of the Company, threatened that (i) could reasonably be expected to have a material adverse effect on the performance of this Agreement or the consummation of any of the transactions contemplated hereby or (ii) could reasonably be expected to have a Material Adverse Effect, except as set forth in or contemplated in the Registration Statement, Disclosure Package and the Prospectus (exclusive of any amendment or supplement thereto).

(v) Each of the Company and each of its subsidiaries owns or leases all such properties as are necessary to the conduct of its operations as presently conducted, except as would not reasonably be expected to have a Material Adverse Effect.

(w) Neither the Company nor any subsidiary is in violation or default of (i) any provision of its charter or bylaws, (ii) the terms of any indenture, contract, lease, mortgage, deed of trust, note agreement, loan agreement or other agreement, obligation, condition, covenant or instrument to which it is a party or bound or to which its property is subject, or (iii) any statute, law, rule, regulation, judgment, order or decree of any court, regulatory body, administrative agency, governmental body, arbitrator or other authority having jurisdiction over the Company or such subsidiary or any of its properties, as applicable, except in the case of clauses (ii) and (iii) for any such violation or default as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(x) Ernst & Young LLP, who has certified certain financial statements of the Company and delivered its report with respect to the audited financial statements and schedules included in the Registration Statement, the Disclosure Package and the Prospectus, is an independent registered public accounting firm with respect to the Company within the meaning of the Securities Act and the applicable published rules and regulations thereunder.

(y) The Company has filed all tax returns that are required to be filed or has requested extensions thereof (except (i) in any case where such failure to file would not reasonably be expected to have a Material Adverse Effect or (ii) as set forth in or contemplated in the Disclosure Package and the Prospectus (exclusive of any amendment or supplement thereto)) and has paid all taxes required to be paid by it and any other assessment, fine or penalty levied against it, to the extent that any of the foregoing is due and payable, except (i) where any such failure to pay, assessment, fine or penalty is currently being contested in good faith or would not reasonably be expected to have a Material Adverse Effect or (ii) as set forth in or contemplated in the Registration Statement, the Disclosure Package and the Prospectus (exclusive of any amendment or supplement thereto).

(z) No labor problem or dispute with the employees of the Company or any of its subsidiaries exists or, to the Company's knowledge, is threatened or imminent, and the Company is not aware of any existing or imminent labor disturbance by the employees of any of its or its subsidiaries' principal suppliers, contractors or customers, that could have a Material Adverse Effect, except as set forth in or contemplated in the Registration Statement, the Disclosure Package and the Prospectus (exclusive of any amendment or supplement thereto).

(aa) The Company and each of its subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as the Company reasonably believes are prudent and customary in the businesses in which they are engaged; all policies of insurance and fidelity or surety bonds insuring the Company or any of its subsidiaries or their respective businesses, assets, employees, officers and directors are in full force and effect; the Company and its subsidiaries are in compliance with the terms of such policies and instruments in all material respects; and there are no material claims by the Company or any of its subsidiaries under any such policy or instrument as to which any insurance company is denying liability or defending under a reservation of rights clause; neither the Company nor any such subsidiary has been refused any insurance coverage sought or applied for; and neither the Company nor any such subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not have reasonably be expected to have a Material Adverse Effect, except as set forth in or contemplated in the Registration Statement, the Disclosure Package and the Prospectus (exclusive of any amendment or supplement thereto).

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

(cc) The Company and its subsidiaries possess all licenses, certificates, permits and other authorizations required to be issued by all applicable authorities necessary to conduct their respective businesses, except for any such failure to possess as would not reasonably be expected to have a Material Adverse Effect; and neither the Company nor any such subsidiary has received any notice of proceedings relating to the revocation or modification of any such certificate, authorization or permit which, individually or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would have a Material Adverse Effect, except as set forth in or contemplated in the Disclosure Package and the Prospectus (exclusive of any amendment or supplement thereto).

(dd) The Company and each of its subsidiaries maintain a system of internal accounting controls designed to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles in the United States and to maintain asset accountability; (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 XBRL included in the Registration Statement, the Preliminary Prospectus and the Prospectus is in compliance with the SEC's published rules, regulations and guidelines applicable thereto. The Company and its subsidiaries' internal controls over financial reporting are effective and the Company and its subsidiaries are not aware of any material weakness in their internal controls over financial reporting.

(ee) The Company and its subsidiaries maintain "disclosure controls and procedures" (as such term is defined in Rule 13a-15(e) under the Exchange Act); and such disclosure controls and procedures are effective.

(ff) The Company has not taken, directly or indirectly (without giving effect to the activities of the Managers), any action designed to or that would constitute or that might reasonably be expected to cause or result in, under the Exchange Act or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares.

(gg) The Company and its subsidiaries (i) are in compliance with any and all applicable foreign, federal, state and local laws and regulations relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants (“Environmental Laws”), (ii) have received and are in compliance with all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses and (iii) have not received notice of any actual or potential liability under or relating to any Environmental Law, except where such non-compliance with Environmental Laws, failure to receive required permits, licenses or other approvals or liability would not reasonably be expected, individually or in the aggregate, have a Material Adverse Effect, except as set forth in or contemplated in the Registration Statement, Disclosure Package and the Prospectus (exclusive of any amendment or supplement thereto). Except as set forth in the Registration Statement, the Disclosure Package and the Prospectus, neither the Company nor any of the subsidiaries has been named as a “potentially responsible party” under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended.

(hh) In the ordinary course of its business, the Company periodically reviews the effect of Environmental Laws on the business, operations and properties of the Company and its subsidiaries, in the course of which it identifies and evaluates associated costs and liabilities (including, without limitation, any capital or operating expenditures required for clean-up, closure of properties or compliance with Environmental Laws, or any permit, license or approval, any related constraints on operating activities and any potential liabilities to third parties). On the basis of such review, the Company has reasonably concluded that such associated costs and liabilities would not, individually or in the aggregate, have a Material Adverse Effect, except as set forth in or contemplated in the Registration Statement, the Disclosure Package and the Prospectus (exclusive of any amendment or supplement thereto).

(ii) None of the following events has occurred or exists: (i) a failure to fulfill the obligations, if any, under the minimum funding standards of Section 302 of the United States Employee Retirement Income Security Act of 1974, as amended (“ERISA”), and the regulations and published interpretations thereunder with respect to a Plan (as defined below), determined without regard to any waiver of such obligations or extension of any amortization period that would reasonably be expected to have a Material Adverse Effect; (ii) an audit or investigation by the Internal Revenue Service, the U.S. Department of Labor, the Pension Benefit Guaranty Corporation or any other federal or state governmental agency or any foreign regulatory agency with respect to the employment or compensation of employees by any of the Company or any of its subsidiaries that would reasonably be expected to have a Material Adverse Effect; (iii) any breach of any contractual obligation, or any violation of law or applicable qualification standards, with respect to the employment or compensation of employees by the Company or any of its subsidiaries that would reasonably be expected to have a Material Adverse Effect. None of the following events has occurred or is reasonably likely to occur: (i) a material increase in the aggregate amount of contributions required to be made to all Plans in the current fiscal year of the Company and its subsidiaries compared to the amount of such contributions made in the most recently completed fiscal year of the Company and its subsidiaries; (ii) a material increase in the “accumulated post-retirement benefit obligations” (within the meaning of Statement of Financial Accounting Standards 106) of the Company and its subsidiaries compared to the amount of such obligations in the most recently completed fiscal year of the Company and its subsidiaries; (iii) any event or condition giving rise to a liability under Title IV of ERISA that could reasonably be expected to have a Material Adverse Effect; or (iv) the filing of a claim by one or more employees or former employees of the Company or any of its subsidiaries related to their employment that would reasonably be expected to have a Material Adverse Effect. For purposes of this paragraph, the term “Plan” means a plan (within the meaning of Section 3(3) of ERISA) subject to Title IV of ERISA with respect to which the Company or any of its subsidiaries may have any liability.

(jj) There is and has been no failure on the part of the Company and any of the Company's directors or officers, in their capacities as such, to comply with any provision of the Sarbanes-Oxley Act of 2002, as amended, and the rules and regulations promulgated in connection therewith, including Section 402 relating to loans and Sections 302 and 906 relating to certifications.

(kk) Neither the Company nor any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee, affiliate or other person acting on behalf of the Company or any of its subsidiaries is aware of or has taken any action, directly or indirectly, that could result in a violation or a sanction for violation by such persons of the Foreign Corrupt Practices Act of 1977 or the U.K. Bribery Act 2010, each as may be amended, or similar law of any other relevant jurisdiction, or the rules or regulations thereunder to which the Company, its subsidiaries and its controlled affiliates are subject; and the Company and its subsidiaries have instituted and maintain policies and procedures designed to ensure compliance therewith. No part of the proceeds of the offering will be used, directly or indirectly, in violation of the Foreign Corrupt Practices Act of 1977 or the U.K. Bribery Act 2010, each as may be amended, or similar law of any other relevant jurisdiction, or the rules or regulations thereunder.

(ll) The operations of the Company and its subsidiaries are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements and the money laundering statutes and the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "Money Laundering Laws") and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

(mm) Neither the Company nor any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company or any of its subsidiaries (i) is, or is controlled or 50% or more owned in the aggregate by or is acting on behalf of, one or more individuals or entities that are currently the subject of any sanctions administered or enforced by the United States (including any administered or enforced by the Office of Foreign Assets Control of the U.S. Department of the Treasury, the U.S. Department of State or the Bureau of Industry and Security of the U.S. Department of Commerce), the United Nations Security Council, the European Union, a member state of the European Union (including sanctions administered or enforced by Her Majesty's Treasury of the United Kingdom) or other relevant sanctions authority (collectively, "Sanctions") and such persons, "Sanctioned Persons" and each such person, a "Sanctioned Person"), (ii) is located, organized or resident in a country or territory that is, or whose government is, the subject of Sanctions that broadly prohibit dealings with that country or territory (collectively, "Sanctioned Countries" and each, a "Sanctioned Country") or (iii) will, directly or indirectly, use the proceeds of this offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other individual or entity in any manner that would result in a violation of any Sanctions by, or could result in the imposition of Sanctions against, any individual or entity (including any individual or entity participating in the offering, whether as manager, underwriter, advisor, investor or otherwise).

(nn) Neither the Company nor any of its subsidiaries has engaged in any dealings or transactions with or for the benefit of a Sanctioned Person, or with or in a Sanctioned Country, in the preceding three years, nor does the Company or any of its subsidiaries have any plans to engage in dealings or transactions with or for the benefit of a Sanctioned Person, or with or in a Sanctioned Country.

(oo) The subsidiaries listed on Annex B attached hereto are the only significant subsidiaries of the Company as defined by Rule 1-02 of Regulation S-X.



(pp) Except as disclosed in the Registration Statement, Disclosure Package and the Prospectus, and as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, (i) the Company and its subsidiaries own, possess, or have valid and enforceable licenses or other rights to use, on reasonable terms, all patents, trademarks, service marks, trade names, copyrights, inventions, trade secrets, know-how and other intellectual property (including all registrations and applications for registration of, and all goodwill associated with, the foregoing) (collectively, the “Intellectual Property”) that is used or held for use in or, to the Company’s knowledge, is necessary for the conduct of the business of the Company and its subsidiaries as now conducted or as proposed in the Registration Statement, the Disclosure Package and Prospectus to be conducted; (ii) to the Company’s knowledge, no third party has infringed, misappropriated or otherwise violated any Intellectual Property owned by or exclusively licensed to the Company or its subsidiaries; (iii) to the Company’s knowledge, (A) neither the Company nor any of its subsidiaries has infringed, misappropriated or otherwise violated any Intellectual Property of any third party and (B) none of the product candidates of the Company or any of its subsidiaries, if commercially sold or offered for commercial sale, would infringe, misappropriate or otherwise violate any Intellectual Property of any third party; (iv) to the Company’s knowledge, all Intellectual Property owned by or exclusively licensed to the Company or its subsidiaries is valid and enforceable; (v) there is no pending or, to the Company’s knowledge, threatened action, suit, proceeding or claim by any third party: (A) challenging any of the Company’s or any of its subsidiaries’ rights in or to any Intellectual Property owned by or exclusively licensed to the Company or any of its subsidiaries; (B) challenging the inventorship, validity, enforceability or scope of any Intellectual Property owned by or exclusively licensed to the Company or any of its subsidiaries; or (C) alleging that the Company or any of its subsidiaries has infringed, misappropriated or otherwise violated, or would, upon the commercial sale or offer for commercial sale of any product candidate of the Company or any of its subsidiaries, infringe, misappropriate, or otherwise violate, any Intellectual Property of any third party; and (vi) the Company and its subsidiaries have taken reasonable steps to maintain the confidentiality of all Intellectual Property, the value of which to the Company or any of its subsidiaries is contingent upon maintaining the confidentiality thereof.

(qq) (i) Except as may be included in the Registration Statement, the Disclosure Package and the Prospectus, (x) to the Company’s knowledge, there has been no material security breach or other material compromise of or relating to any of the Company’s or its subsidiaries’ information technology and computer systems, networks, hardware, software, data (including the data of their respective customers, employees, suppliers, vendors and any third party data maintained by or on behalf of them), equipment or technology (collectively, “IT Systems and Data”) and (y) the Company and its subsidiaries have not been notified of, and have no knowledge of any event or condition that would reasonably be expected to result in, any material security breach or other material compromise to their IT Systems and Data; (ii) the Company and its subsidiaries are presently in compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Data and to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification, except as would not, in the case of this clause (ii), individually or in the aggregate, have a Material Adverse Effect; and (iii) the Company and its subsidiaries have implemented backup and disaster recovery technology consistent with industry standards and practices. The statements contained in the Registration Statement, the Disclosure Package and the Prospectus under the captions “Risk Factors—Risks Related to Our Intellectual Property” and “Business—Intellectual Property,” insofar as such statements summarize legal matters, agreements, documents, or proceedings discussed therein, are accurate and fair summaries of such legal matters, agreements, documents or proceedings.

(rr) (i) Except as described in the Registration Statement, the Disclosure Package and the Prospectus, the preclinical and clinical studies conducted by or, to the knowledge of the Company, on behalf of or sponsored by the Company or its subsidiaries, or in which the Company or its subsidiaries have participated, that are described in the Registration Statement, the Disclosure Package and the Prospectus, or the results of which are referred to in the Registration Statement, the Disclosure Package and the Prospectus, as applicable, were, and if still pending are, being conducted in all material respects in accordance with standard medical and scientific research standards and procedures for products or product candidates comparable to those being developed by the Company and all applicable statutes and all applicable rules and regulations of the U.S. Food and Drug Administration and comparable regulatory agencies outside of the United States to which they are subject, including the European Medicines Agency (collectively, the “Regulatory Authorities”) and Good Clinical Practice and Good Laboratory Practice requirements; (ii) the descriptions in the Registration Statement, the Disclosure Package and the Prospectus of the results of such studies are accurate and complete descriptions in all material respects and fairly present the data derived therefrom; (iii) the Company has no knowledge of any other studies not described in the Registration Statement, the Disclosure Package and the Prospectus, the results of which are inconsistent with or call into question the results described or referred to in the Registration Statement, the Disclosure Package and the Prospectus; (iv) the Company and its subsidiaries have operated at all times and are currently in compliance in all material respects with all applicable statutes, rules and regulations of the Regulatory Authorities, except where such non-compliance would not, individually or in the aggregate, have a Material Adverse Effect; and (v) neither the Company nor any of its subsidiaries, to the Company’s knowledge, have received any written notices, correspondence or other communications from the Regulatory Authorities or any other governmental agency requiring or threatening the termination, material modification or suspension of any preclinical or clinical studies that are described in the Registration Statement, the Disclosure Package and the Prospectus or the results of which are referred to in the Registration Statement, the Disclosure Package and the Prospectus, other than ordinary course communications with respect to modifications in connection with the design and implementation of such studies, and, to the Company’s knowledge, there are no reasonable grounds for the same.

(ss) The Company has not failed to file with the Regulatory Authorities any required filing, declaration, listing, registration, report or submission with respect to the Company’s product candidates that are described or referred to in the Registration Statement, the Disclosure Package and the Prospectus, except where such failure would not, individually or in the aggregate, have a Material Adverse Effect; all such filings, declarations, listings, registrations, reports or submissions were in material compliance with applicable laws when filed; and no deficiencies regarding compliance with applicable law have been asserted by any applicable regulatory authority with respect to any such filings, declarations, listings, registrations, reports or submissions.

(tt) Neither the Company nor any of its subsidiaries nor any of its or their properties or assets has any immunity from the jurisdiction of any court or from any legal process (whether through service or notice, attachment prior to judgment, attachment in aid of execution or otherwise) under the laws of the State of New York.

(uu) Except as disclosed in the Registration Statement, the Disclosure Package and the Prospectus, the Company (i) does not have any material lending or other similar relationship with any banking or lending affiliate of any of the Managers and (ii) does not intend to use any of the proceeds from the sale of the Shares hereunder to repay any outstanding debt owed to any affiliate of any of the Managers.

Any certificate signed by any officer of the Company and delivered to the Managers or to counsel for the Managers in connection with this Agreement or any Terms Agreement shall be deemed a representation and warranty by the Company, as to matters covered thereby, to each Manager.

3. Sale and Delivery of Shares. On the basis of the representations, warranties and agreements herein contained, but subject to the terms and conditions herein set forth, the Company and the Managers agree that the Company may from time to time seek to sell Shares through a Designated Manager, acting as sales agent, or directly to any of the Managers acting as principal, as follows:

(a) The Company may submit to a Designated Manager its orders (including any price, time or size limits or other customary parameters or conditions) to sell Shares on any Trading Day (as defined herein) in a form and manner as mutually agreed to by the Company and such Designated Manager. As used herein, "Trading Day," shall mean any trading day on the Nasdaq Global Market.

(b) Subject to the terms and conditions hereof, each Manager, at any time it is a Designated Manager, shall use its reasonable efforts to execute any Company order submitted to it hereunder to sell Shares and with respect to which such Designated Manager has agreed to act as sales agent. The Company acknowledges and agrees that (i) there can be no assurance that a Designated Manager will be successful in selling the Shares, (ii) a Designated Manager will incur no liability or obligation to the Company or any other person or entity if it does not sell Shares for any reason other than a failure by a Designated Manager to use its reasonable efforts consistent with its normal trading and sales practices and applicable law and regulations to sell such Shares as required under this Agreement and (iii) no Manager shall be under any obligation to purchase Shares on a principal basis pursuant to this Agreement, except as otherwise specifically agreed to by a Manager and the Company. If either the Manager or the Company has reason to believe that the exemptive provisions set forth in Rule 101(c)(1) of Regulation M under the Exchange Act are not satisfied with respect to the Shares, it shall promptly notify the other party, and the Manager may, at its sole discretion, suspend sales of the Shares under this Agreement.

(c) The Company shall not authorize the issuance and sale of, and a Designated Manager shall not sell as sales agent, any Share at a price lower than the minimum price therefor designated from time to time by the board of directors (the “Board”) of the Company or a duly authorized committee thereof and notified to a Designated Manager in writing. In addition, the Company or a Designated Manager may upon notice to the other party hereto by telephone (confirmed promptly by email or facsimile) suspend an offering of the Shares with respect to which that Designated Manager is acting as sales agent; provided, however, that such suspension or termination shall not affect or impair the parties’ respective obligations with respect to the Shares sold hereunder prior to the giving of such notice.

(d) The compensation to a Designated Manager for sales of the Shares with respect to which such Designated Manager acts as sales agent hereunder shall be up to 3% of the gross offering proceeds of the Shares sold pursuant to this Agreement as mutually agreed to in writing by such Designated Manager and the Company. The foregoing rate of compensation shall not apply when a Manager, acting as principal, purchases Shares from the Company pursuant to a Terms Agreement. Any compensation or commission due and payable to any Managers hereunder with respect to any sale of Shares shall be paid by the Company to such Managers concurrently with the settlement for sales of the Shares by deduction from the proceeds from sales of the Shares payable to the Company. The remaining proceeds, after further deduction for any transaction fees imposed by any governmental or self-regulatory organization in respect of such sales, shall constitute the net proceeds to the Company for such Shares (the “Net Proceeds”).

(e) Settlement for sales of the Shares pursuant to this Agreement will occur on the second Trading Day (or such earlier day as is industry practice for regular-way trading) following the date on which such sales are made (each such day, a “Settlement Date”). On each Settlement Date, the Shares sold through a Designated Manager for settlement on such date shall be issued and delivered by the Company to such Designated Manager against payment of the Net Proceeds from the sale of such Shares. Settlement for all such Shares shall be effected by free delivery of the Shares by the Company or its transfer agent to such Designated Manager’s or its designee’s account (provided such Designated Manager shall have given the Company written notice of such designee prior to the Settlement Date) at The Depository Trust Company through its Deposit and Withdrawal at Custodian System or by such other means of delivery as may be mutually agreed upon by the parties hereto, in return for payments in same day funds delivered to the account designated by the Company. If the Company, or its transfer agent (if applicable), shall default on its obligation to deliver the Shares on any Settlement Date, the Company shall (i) hold each applicable Designated Manager harmless against any loss, claim, damage, or expense (including reasonable legal fees and expenses), as incurred, arising out of or in connection with such default by the Company and (ii) pay each such Designated Manager any commission, discount or other compensation to which it would otherwise be entitled absent such default.

(f) If acting as sales agent hereunder, the Designated Manager shall provide written confirmation (which may be by facsimile or email) to the Company following the close of trading on the Nasdaq Global Market each day in which the Shares are sold under this Agreement setting forth (i) the amount of the Shares sold on such day and the gross offering proceeds received from such sale and (ii) the commission payable by the Company to such Designated Manager with respect to such sales.

(g) At each Applicable Time, Settlement Date, Representation Date (as defined in Section 4(j)) and Filing Date (as defined in Section 4(q)), the Company shall be deemed to have affirmed each representation and warranty contained in this Agreement as if such representation and warranty were made as of such date, modified as necessary to relate to the Registration Statement and the Prospectus as amended as of such date. Any obligation of a Designated Manager to use its reasonable efforts to sell the Shares on behalf of the Company as sales agent shall be subject to the continuing accuracy of the representations and warranties of the Company herein (and the completion of any reasonable diligence to verify such accuracy by such Designated Manager), to the performance by the Company of its obligations hereunder and to the continuing satisfaction of the additional conditions specified in Section 6 of this Agreement.

(h) Subject to such further limitations on offers and sales of Shares or delivery of instructions to offer and sell Shares as are set forth herein and as may be mutually agreed upon by the Company and a Designated Manager, the Company shall not request the sale of any Shares that would be sold, and no Designated Manager shall be obligated to sell, (i) any time during the period commencing on the fifth business day prior to the time the Company shall issue a press release containing, or shall otherwise publicly announce, its earnings, revenues or other results of operations (each, an “Earnings Announcement”) through and including the time that is 24 hours after the time that the Company files a Quarterly Report on Form 10-Q or an Annual Report on Form 10-K that includes consolidated financial statements as of and for the same period or periods, as the case may be, covered by such Earnings Announcement unless the Company shall file with the SEC a Current Report on Form 8-K containing the material results of operations for such period prior to any such sale, which shall be incorporated by reference in the Registration Statement, the Disclosure Package and the Prospectus or (ii) during any other period in which the Company is in possession of material non-public information.

(i) If the Company wishes to issue and sell the Shares pursuant to this Agreement directly to any of the Managers acting as principal (each, a “Placement”), it will notify the Manager or Managers of the proposed terms of such Placement. If such Manager or Managers, acting as principal, wishes to accept such proposed terms (which a Manager may decline to do for any reason in its sole discretion), or wishes to accept amended terms proposed by the Company after further discussion, such Manager or Managers and the Company will enter into a Terms Agreement setting forth the terms of such Placement. The terms set forth in a Terms Agreement will not be binding on the Company or such Manager or Managers unless and until the Company and such Manager or Managers have each executed such Terms Agreement accepting all of the terms of such Terms Agreement. In the event of a conflict between the terms of this Agreement and the terms of a Terms Agreement, the terms of such Terms Agreement will control.

(j) Each Placement shall be made in accordance with the terms of this Agreement and, if applicable, a Terms Agreement, which will provide for the sale of such Shares to, and the purchase thereof by, such Manager. A Terms Agreement may also specify certain provisions relating to the reoffering of such Shares by a Manager. The commitment of a Manager to purchase the Shares pursuant to any Terms Agreement shall be deemed to have been made on the basis of the representations and warranties of the Company herein contained and shall be subject to the terms and conditions herein set forth. Each Terms Agreement shall specify the number of the Shares to be purchased by a Manager pursuant thereto, the price to be paid to the Company for such Shares, any provisions relating to rights of, and default by, underwriters acting together with such Manager in the reoffering of the Shares, and the time and date (each such time and date being referred to herein as a “Time of Delivery”) and place of delivery of and payment for such Shares.

(k) Under no circumstances shall the number and aggregate amount of the Shares sold pursuant to this Agreement and any Terms Agreement exceed (i) the aggregate amount set forth in Section 1, (ii) the number of shares of the Common Stock available for issuance under the currently effective Registration Statement or (iii) the number and aggregate amount of the Shares authorized from time to time to be issued and sold under this Agreement by the Board, or a duly authorized committee thereof, and notified to the Managers in writing.

4. Agreements. The Company agrees with each of the Managers that:

(a) During any period when the delivery of a prospectus relating to the Shares is required (including in circumstances where such requirement may be satisfied pursuant to Rule 172 or any similar rule) to be delivered under the Securities Act, the Company will not file any amendment of the Registration Statement or supplement relating to the Shares (including the Prospectus Supplement or any Interim Prospectus Supplement) to the Base Prospectus or any Rule 462(b) Registration Statement unless the Company has furnished to the Managers a copy for their review prior to filing and will not file any such proposed amendment or supplement to which the Managers reasonably object. The Company has properly completed the Prospectus, in a form approved by the Managers, and filed such Prospectus, as amended at the Execution Time, with the SEC pursuant to the applicable paragraph of Rule 424(b) by the Execution Time and will cause any supplement to the Prospectus to be properly completed, in a form approved by the Managers, and will file such supplement with the SEC pursuant to the applicable paragraph of Rule 424(b) within the time period prescribed thereby and will provide evidence satisfactory to the Managers of such timely filing. The Company will promptly advise the Managers (i) when the Prospectus, and any supplement thereto, shall have been filed (if required) with the SEC pursuant to Rule 424(b) or when any Rule 462(b) Registration Statement shall have been filed with the SEC, (ii) when, during any period when the delivery of a prospectus (whether physically or through compliance with Rule 172 or any similar rule) is required under the Securities Act in connection with the offering or sale of the Shares, any amendment to the Registration Statement shall have been filed or become effective, (iii) of any request by the SEC or its staff for any amendment of the Registration Statement, or any Rule 462(b) Registration Statement, or for any supplement to the Prospectus or for any additional information, (iv) of the issuance by the SEC of any stop order suspending the effectiveness of the Registration Statement or of any notice objecting to its use or the institution or threatening of any proceeding for that purpose and (v) of the receipt by the Company of any notification with respect to the suspension of the qualification of the Shares for sale in any jurisdiction or the institution or threatening of any proceeding for such purpose. The Company will use its reasonable best efforts to prevent the issuance of any such stop order or the occurrence of any such suspension or objection to the use of the Registration Statement and, upon such issuance, occurrence or notice of objection, to obtain as soon as possible the withdrawal of such stop order or relief from such occurrence or objection, including, if necessary, by filing an amendment to the Registration Statement or a new registration statement and using its reasonable best efforts to have such amendment or new registration statement declared effective as soon as practicable.

(b) If, at any time on or after an Applicable Time but prior to the related Settlement Date or Time of Delivery, any event occurs as a result of which the Disclosure Package would include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein in the light of the circumstances under which they were made or the circumstances then prevailing not misleading, the Company will (i) notify promptly the relevant Manager(s) so that any use of the Disclosure Package may cease until it is amended or supplemented; (ii) amend or supplement the Disclosure Package to correct such statement or omission; and (iii) supply any amendment or supplement to the relevant Manager(s) in such quantities as the Manager(s) may reasonably request.

(c) During any period when the delivery of a prospectus relating to the Shares is required (including in circumstances where such requirement may be satisfied pursuant to Rule 172 or any similar rule) to be delivered under the Securities Act, if any event occurs as a result of which the Prospectus as then supplemented would include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein in the light of the circumstances under which they were made at such time not misleading, or if it shall be necessary to amend the Registration Statement, file a new registration statement or supplement the Prospectus to comply with the Securities Act or the Exchange Act or the respective rules thereunder, including in connection with use or delivery of the Prospectus, the Company promptly will (i) notify the Managers of any such event, (ii) prepare and file with the SEC, subject to the first sentence of paragraph (a) of this Section 4, an amendment or supplement or new registration statement which will correct such statement or omission or effect such compliance, (iii) use its reasonable best efforts to have any amendment to the Registration Statement or new registration statement declared effective as soon as practicable in order to avoid any disruption in use of the Prospectus and (iv) supply any supplemented Prospectus to the Managers in such quantities as the Managers may reasonably request.

(d) As soon as practicable, the Company will make generally available to its security holders and to the Managers an earnings statement or statements of the Company and its subsidiaries that will satisfy the provisions of Section 11(a) of the Securities Act and Rule 158 under the Securities Act.

(e) Upon request, the Company will furnish to the Managers and counsel for the Managers, without charge, conformed signed copies of the Registration Statement (including exhibits thereto) and, so long as delivery of a prospectus by a Manager or dealer may be required by the Securities Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172), as many copies of the Prospectus and each Issuer Free Writing Prospectus and any supplement thereto as the Managers may reasonably request. The Company will pay the expenses of printing or other production of all documents relating to the offering.

(f) The Company will cooperate with the Managers, if necessary, to qualify the Shares for sale under the laws of such jurisdictions as the Managers reasonably may designate and will maintain such qualifications in effect so long as required for the distribution of the Shares; provided that in no event shall the Company be obligated to qualify to do business in any jurisdiction where it is not now so qualified or to take any action that would subject it to service of process in suits, other than those arising out of the offering or sale of the Shares, in any jurisdiction where it is not now so subject.



(g) The Company agrees that, unless it has or shall have obtained the prior written consent of the relevant Designated Manager, and each Manager agrees with the Company that, unless it has or shall have obtained, as the case may be, the prior written consent of the Company, it has not made and will not make any offer relating to the Shares that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a “free writing prospectus” (as defined in Rule 405) required to be filed by the Company with the SEC or retained by the Company under Rule 433; provided that the prior written consent of the parties hereto shall be deemed to have been given in respect of the Free Writing Prospectuses included in Schedule I hereto. Any such free writing prospectus consented to by the Managers or the Company is hereinafter referred to as a “Permitted Free Writing Prospectus.” The Company agrees that (i) it has treated and will treat, as the case may be, each Permitted Free Writing Prospectus as an Issuer Free Writing Prospectus and (ii) it has complied and will comply, as the case may be, with the requirements of Rules 164 and 433 applicable to any Permitted Free Writing Prospectus, including in respect of timely filing with the SEC, legending and record keeping.

(h) The Company will not (i) take, directly or indirectly, any action designed to or that would constitute or that might reasonably be expected to cause or result in, under the Exchange Act or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Shares or (ii) sell, bid for, purchase or pay any person (other than as contemplated by this Agreement or any Terms Agreement) any compensation for soliciting purchases of the Shares.

(i) Prior to submitting any request to sell Shares pursuant to this Agreement, the Company will advise the Managers promptly if it shall have received notice or obtained knowledge thereof, of any information or fact that would materially alter or materially affect any opinion, certificate, letter and other document provided to the Managers pursuant to Section 6 herein.

(j) Upon commencement of the offering of the Shares under this Agreement (and upon the recommencement of the offering of the Shares under this Agreement following the termination of a suspension of sales hereunder), and each time that (i) the Registration Statement or the Prospectus shall be amended or supplemented (other than (A) an Interim Prospectus Supplement filed pursuant to Rule 424(b) pursuant to Section 4(q) of this Agreement, (B) a prospectus supplement relating solely to the offering or resale of securities other than the Shares or (C) the filing with the SEC of any report under the Exchange Act except such reports referred to in Section 4(j)(ii)), (ii) there is filed with the SEC any annual report on Form 10-K or quarterly report on Form 10-Q, or any other document that contains financial statements or financial information that is incorporated by reference into the Prospectus, or any amendment thereto, or (iii) the Shares are delivered to one or more Managers as principal at the Time of Delivery pursuant to a Terms Agreement (the date of such commencement, the date of each such recommencement and the date of each such event referred to in (i), (ii) and (iii) above, a “Representation Date”), the Company shall furnish or cause to be furnished to the Managers forthwith a certificate dated and delivered on such Representation Date, as the case may be, in form satisfactory to the Managers to the effect that the statements contained in the certificate referred to in Section 6(e) of this Agreement which were last furnished to the Managers are true and correct at the time of such Representation Date, as though made at and as of such time (except that such statements shall be deemed to relate to the Registration Statement and the Prospectus as amended and supplemented to such time) or, in lieu of such certificate, a certificate of the same tenor as the certificate referred to in said Section 6(e), modified as necessary to relate to the Registration Statement, the Disclosure Package and the Prospectus as amended and supplemented to the time of delivery of such certificate. Notwithstanding the provisions of this Section 4(j) or as may be otherwise provided in this Agreement, for purposes of the Company's obligations hereunder, the parties hereto may agree at any time and from time to time that a Representation Date for any such event may be a date that is within five business days of any such event, or such later date and time as the parties hereto may agree. In addition, upon notice from the Company to the Managers at any time prior to a Representation Date, the Company may notify the Managers that it intends to suspend sales pursuant to this Agreement and defer a Representation Date until further notice, provided, however that the Company shall at no time request a sale of the Shares pursuant to the terms of Section 3 herein until such time as the Company satisfies its obligations pursuant to Sections 4 and 6 hereof.

(k) At each Representation Date, the Company shall furnish or cause to be furnished forthwith to the Managers and to counsel to the Managers written opinions of Skadden, Arps, Slate, Meagher & Flom LLP, counsel to the Company, or other counsel reasonably satisfactory to the Managers, dated and delivered on such Representation Date, in form and substance satisfactory to the Managers, of the same tenor as the opinions referred to in Section 6(b) of this Agreement, but modified as necessary to relate to the Registration Statement, the Disclosure Package and the Prospectus as amended and supplemented to the time of delivery of such opinion; provided, however, that in lieu of such opinions for subsequent Representation Dates, the Company's counsel may furnish the Managers with a letter to the effect that the Managers may rely on a prior opinion delivered under Section 6(b) of this Agreement to the same extent as if it were dated the date of such letter (except that statements in such prior opinion shall be deemed to relate to the Registration Statement and the Prospectus as amended or supplemented at such Representation Date).

(l) At each Representation Date, the Company shall furnish or cause to be furnished forthwith to the Managers and to counsel to the Managers a written opinion of Hogan Lovells US LLP, intellectual property counsel for the Company, or other intellectual property counsel reasonably satisfactory to the Managers, dated and delivered on such Representation Date, in form and substance satisfactory to the Managers, of the same tenor as the opinion referred to in Section 6(c) of this Agreement, but modified as necessary to relate to the Registration Statement, the Disclosure Package and the Prospectus as amended and supplemented to the time of delivery of such opinion; provided, however, that in lieu of such opinions for subsequent Representation Dates, the Company's intellectual property counsel may furnish the Managers with a letter to the effect that the Managers may rely on a prior opinion delivered under Section 6(c) of this Agreement to the same extent as if it were dated the date of such letter (except that statements in such prior opinion shall be deemed to relate to the Registration Statement and the Prospectus as amended or supplemented at such Representation Date).

(m) At each Representation Date, Davis Polk & Wardwell LLP, counsel to the Managers, shall deliver a written opinion dated and delivered on such Representation Date, in form and substance satisfactory to the Managers, of the same tenor as the opinions referred to in Section 6(d) of this Agreement but modified as necessary to relate to the Registration Statement, the Disclosure Package and the Prospectus as amended and supplemented to the time of delivery of such opinion; provided, however, that in lieu of such opinions for subsequent Representation Dates, the Managers' counsel may furnish the Managers with a letter to the effect that the Managers may rely on a prior opinion delivered under Section 6(d) of this Agreement to the same extent as if it were dated the date of such letter (except that statements in such prior opinion shall be deemed to relate to the Registration Statement and the Prospectus as amended or supplemented at such Representation Date).

(n) At each Representation Date, the Company shall cause Ernst & Young LLP, or other independent accountants satisfactory to the Managers forthwith, to furnish the Managers a letter, dated and delivered on such Representation Date, in form and substance satisfactory to the Managers of the same tenor as the letter referred to in Section 6(f) of this Agreement but modified to relate to the Registration Statement, the Disclosure Package and the Prospectus, as amended and supplemented to the date of such letter.

(o) At each Representation Date, and at such other times as may be reasonably requested by a Manager, the Company will conduct a due diligence session, in form and substance satisfactory to the Managers, which shall include representatives of the management and the independent accountants of the Company. The Company shall cooperate timely with any reasonable due diligence request from or review conducted by the Managers or its agents from time to time in connection with the transactions contemplated by this Agreement, including, without limitation, providing information and available documents and access to appropriate officers and agents of the Company during regular business hours and at the Company's principal offices, and timely furnishing or causing to be furnished such certificates, letters and opinions from the Company, its officers and its agents, as the Managers may reasonably request.

(p) Nothing in this Agreement shall restrict a Manager from trading, and the Company acknowledges that each Manager may trade in the Common Stock for such Manager's own account and for the account of its clients before, at the same time as, or after sales of the Shares occur pursuant to this Agreement or pursuant to a Terms Agreement.

(q) The Company will either (i) disclose in its Annual Reports on Form 10-K and Quarterly Reports on Form 10-Q, as applicable, with regard to the relevant quarter, the number of the Shares sold by or through the Managers pursuant to this Agreement, the Net Proceeds to the Company and the compensation paid by the Company with respect to such sales of the Shares pursuant to this Agreement, or (ii) on or prior to the earlier of (A) the date on which the Company shall file a Quarterly Report on Form 10-Q or an Annual Report on Form 10-K in respect of any fiscal quarter in which sales of Shares were made by a Manager pursuant to this Agreement and (B) the date on which the Company shall be obligated to file such document referred to in clause (A) in respect of such quarter (each such date, and any date on which an amendment to any such document is filed, a “Filing Date”), the Company will file a prospectus supplement with the SEC under the applicable paragraph of Rule 424(b), which prospectus supplement will set forth, with regard to such quarter, the number of the Shares sold by or through a Manager pursuant to this Agreement, the Net Proceeds to the Company and the compensation paid by the Company with respect to such sales of the Shares pursuant to this Agreement and deliver such number of copies of each such prospectus supplement to the Nasdaq Global Market as are required by such exchange.

(r) If to the knowledge of the Company, the conditions set forth in Section 6(a) or 6(g) shall not be true and correct on the applicable Settlement Date or Time of Delivery, the Company will offer to any person who has agreed to purchase Shares from the Company as the result of an offer to purchase solicited by a Designated Manager the right to refuse to purchase and pay for such Shares.

(s) Each acceptance by the Company of an offer to purchase the Shares hereunder, and each execution and delivery by the Company of a Terms Agreement, shall be deemed to be an affirmation to the Designated Manager, or the Manager(s) party to a Terms Agreement, as the case may be, that the representations and warranties of the Company contained in or made pursuant to this Agreement are true and correct as of the date of such acceptance or of such Terms Agreement as though made at and as of such date, and an undertaking that such representations and warranties will be true and correct as of the Settlement Date for the Shares relating to such acceptance or as of the Time of Delivery relating to such sale, as the case may be, as though made at and as of such date (except that such representations and warranties shall be deemed to relate to the Registration Statement and the Prospectus as amended and supplemented relating to such Shares).

(t) The Company shall ensure that there are at all times sufficient shares of Common Stock to provide for the issuance, free of any preemptive rights, out of its authorized but unissued shares of Common Stock or shares of Common Stock held in treasury, of the maximum aggregate number of Shares authorized for issuance by the Board pursuant to the terms of this Agreement. The Company will use its commercially reasonable efforts to cause the Shares to be listed for trading on the Nasdaq Global Market upon such issuance and to maintain such listing.

(u) During any period when the delivery of a prospectus relating to the Shares is required (including in circumstances where such requirement may be satisfied pursuant to Rule 172 or any similar rule) to be delivered under the Securities Act, the Company will file all documents required to be filed with the SEC pursuant to the Exchange Act within the time periods required by the Exchange Act and the regulations thereunder.

(v) The Company shall cooperate with Managers and use its reasonable efforts to permit the Shares to be eligible for clearance and settlement through the facilities of DTC.

(w) The Company will apply the Net Proceeds from the sale of the Shares in the manner set forth in the Disclosure Package and the Prospectus.

5. Payment of Expenses. The Company agrees to pay the costs and expenses relating to the following matters: (i) the preparation, printing or reproduction and filing with the SEC of the Registration Statement (including financial statements and exhibits thereto), the Prospectus and each Issuer Free Writing Prospectus, and each amendment or supplement to any of them; (ii) the printing (or reproduction) and delivery (including postage, air freight charges and charges for counting and packaging) of such copies of the Registration Statement, the Prospectus and each Issuer Free Writing Prospectus, and all amendments or supplements to any of them, as may, in each case, be reasonably requested for use in connection with the offering and sale of the Shares; (iii) the preparation, printing, authentication, issuance and delivery of certificates for the Shares, including any stamp or transfer taxes in connection with the original issuance and sale of the Shares; (iv) the printing (or reproduction) and delivery of this Agreement, any blue sky memorandum and all other agreements or documents printed (or reproduced) and delivered in connection with the offering of the Shares; (v) the registration of the Shares under the Exchange Act and the listing of the Shares on the Nasdaq Global Market; (vi) any registration or qualification of the Shares for offer and sale under the securities or blue sky laws of the several states (including filing fees and the reasonable fees and expenses of counsel for the Managers relating to such registration and qualification); (vii) any filings required to be made with FINRA (including filing fees and the reasonable fees and expenses of counsel for the Managers relating to such filings); (viii) all other reasonable fees and expenses of counsel for the Managers incurred in connection with the offering contemplated by this Agreement, provided that the total fees and expenses of counsel for the Managers to be paid by the Company, including such fees described in (vi) and (vii) of this paragraph, shall not exceed \$90,000 in the aggregate; (ix) the fees and expenses of the Company's accountants and the fees and expenses of counsel (including local and special counsel) for the Company; and (x) all other costs and expenses incident to the performance by the Company of its obligations hereunder.

6. Conditions to the Obligations of the Managers. The obligations of the Managers under this Agreement and any Terms Agreement shall be subject to (i) the accuracy of the representations and warranties on the part of the Company contained herein as of the Execution Time, each Representation Date, and as of each Applicable Time, Settlement Date and Time of Delivery, (ii) the performance by the Company of its obligations hereunder and (iii) the following additional conditions:

(a) The Prospectus, and any supplement thereto, required by Rule 424 to be filed with the SEC have been filed in the manner and within the time period required by Rule 424(b) with respect to any sale of Shares; each Interim Prospectus Supplement shall have been filed in the manner required by Rule 424(b) within the time period required by Section 4(q) of this Agreement; any material required to be filed by the Company pursuant to Rule 433(d) under the Securities Act shall have been filed with the SEC within the applicable time periods prescribed for such filings by Rule 433; and no stop order suspending the effectiveness of the Registration Statement or any notice objecting to its use shall have been issued and no proceedings for that purpose or pursuant to Section 8A of the Securities Act shall have been instituted or threatened.

(b) The Company shall have requested and caused Skadden, Arps, Slate, Meagher & Flom LLP to furnish to the Managers, on each date specified in Section 4(k) of this Agreement, their opinions addressed to the Managers, substantially in the form attached hereto as Exhibit A.

(c) The Company shall have requested and caused Hogan Lovells US LLP to furnish to the Managers, on each date specified in Section 4(l) of this Agreement, their opinions addressed to the Managers, substantially in the form attached hereto as Exhibit B.

(d) The Managers shall have received from Davis Polk & Wardwell LLP, counsel for the Managers, on each date specified in Section 4(m) of this Agreement, such opinion or opinions, dated as of such date and addressed to the Managers, with respect to the issuance and sale of the Shares, the Registration Statement, the Disclosure Package, the Prospectus (together with any supplement thereto) and other related matters as the Managers may reasonably require, and the Company shall have furnished to such counsel such documents as they request for the purpose of enabling them to pass upon such matters.

(e) The Company shall have furnished to the Managers, on each date specified in Section 4(j) of this Agreement, a certificate of the Company, signed by the Chief Executive Officer and the principal financial or accounting officer of the Company, dated as of such date, to the effect that the signers of such certificate have carefully examined the Registration Statement, the Disclosure Package and the Prospectus and any amendments or supplements thereto and this Agreement and that:

(i) the representations and warranties of the Company in this Agreement are true and correct on and as of such date with the same effect as if made on such date and the Company has complied with all the agreements and satisfied all the conditions on its part to be performed or satisfied at or prior to such date;

(ii) no stop order suspending the effectiveness of the Registration Statement or any notice objecting to its use has been issued and no proceedings for that purpose have been instituted or, to the Company's knowledge, threatened; and

(iii) since the date of the most recent financial statements included or incorporated by reference in the Registration Statement, the Disclosure Package and the Prospectus (exclusive of any amendment or supplement thereto), there has been no material adverse change in the condition (financial or otherwise), prospects, earnings, business or properties of the Company and its subsidiaries, taken as a whole, whether or not arising from transactions in the ordinary course of business, except as set forth in or contemplated in the Disclosure Package and the Prospectus (exclusive of any amendment or supplement thereto).

(f) The Company shall have requested and caused Ernst & Young LLP to have furnished to the Managers, on each date specified in Section 4(n) of this Agreement and to the extent requested by the Managers in connection with any offering of the Shares, letters (which may refer to letters previously delivered to the Managers), dated as of such date, in form and substance satisfactory to the Managers, which letters shall cover, without limitation, the various financial statements and disclosures contained in the Registration Statement, the Disclosure Package and the Prospectus and other matters ordinarily covered by accountants' "comfort letters" to underwriters in connection with registered public offerings as contemplated in the Statement on Auditing Standards No. 72 or successor standards, as well as confirming that they have performed a review of any unaudited interim financial information of the Company included or incorporated by reference in the Registration Statement, the Disclosure Package and the Prospectus in accordance with Statement on Auditing Standards No. 100. References to the Prospectus in this paragraph include any supplement thereto at the date of the letter.

(g) Since the respective dates as of which information is disclosed in the Registration Statement, the Disclosure Package and the Prospectus, except as otherwise stated therein, there shall not have been (i) any change or decrease specified in the letter or letters referred to in paragraph (f) of this Section 6 or (ii) any change, or any development involving a prospective change, in or affecting the condition (financial or otherwise), earnings, business or properties of the Company and its subsidiaries taken as a whole, whether or not arising from transactions in the ordinary course of business, except as set forth in or contemplated in the Registration Statement, the Disclosure Package and the Prospectus (exclusive of any amendment or supplement thereto) the effect of which, in any case referred to in clause (i) or (ii) above, is, in the sole judgment of the Managers, so material and adverse as to make it impractical or inadvisable to proceed with the offering or delivery of the Shares as contemplated by the Registration Statement, the Disclosure Package and the Prospectus (exclusive of any amendment or supplement thereto).

(h) At each Representation Date and prior to each Settlement Date and Time of Delivery, as applicable, the Company shall have furnished to the Designated Manager such further information, certificates and documents as the Designated Manager may reasonably request.

(i) The Shares shall have been listed and admitted and authorized for trading on the Nasdaq Global Market, and satisfactory evidence of such actions shall have been provided to the Managers.

If any of the conditions specified in this Section 6 shall not have been fulfilled when and as provided in this Agreement, or if any of the opinions and certificates mentioned above or elsewhere in this Agreement shall not be reasonably satisfactory in form and substance to the Managers and counsel for the Managers, this Agreement and all obligations of the applicable Manager hereunder may be canceled at, or at any time prior to, any Settlement Date or Time of Delivery, as applicable, by such Manager with respect to itself only. Notice of such cancellation shall be given to the Company in writing or by telephone or facsimile confirmed in writing. Following any such cancellation by a Manager, this Agreement shall remain in effect as to the other Managers that have not exercised their right to cancel this Agreement pursuant to this Section 6, and any obligations and rights of the Managers under this Agreement shall be satisfied by or afforded to only such other Manager.

The documents required to be delivered by this Section 6 shall be delivered at the office of Davis Polk & Wardwell LLP, counsel for the Managers, at 450 Lexington Avenue, New York, New York, 10017, on each such date as provided in this Agreement.

7. Indemnification and Contribution.

(a) The Company agrees to indemnify and hold harmless each Manager, the directors, officers, employees, affiliates and agents of each Manager and each person who controls any Manager within the meaning of either the Securities Act or the Exchange Act against any and all losses, claims, damages or liabilities, joint or several, to which they or any of them may become subject under the Securities Act, the Exchange Act or other U.S. Federal or state statutory law or regulation, at common law or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of a material fact contained in the registration statement for the registration of the Shares as originally filed or in any amendment thereof, or in the Base Prospectus, the Prospectus Supplement, any Interim Prospectus Supplement, the Prospectus, or any Issuer Free Writing Prospectus or in any amendment thereof or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and agrees to reimburse each such indemnified party, as incurred, for any documented legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the Company will not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon any such untrue statement or alleged untrue statement or omission or alleged omission made therein in reliance upon and in conformity with written information furnished to the Company by any Manager specifically for inclusion therein. This indemnity agreement will be in addition to any liability which the Company may otherwise have.



(b) Each Manager severally and not jointly agrees to indemnify and hold harmless the Company, each of its directors, each of its officers who signs the Registration Statement, and each person who controls the Company within the meaning of either the Securities Act or the Exchange Act, to the same extent as the foregoing indemnity from the Company to each Manager, but only with reference to written information relating to such Manager furnished to the Company by such Manager specifically for inclusion in the documents referred to in the foregoing indemnity. This indemnity agreement will be in addition to any liability which any Manager may otherwise have. The Company acknowledges that the name and contact information of the Managers in the Prospectus Supplement and the Prospectus constitute the only information furnished in writing by or on behalf of the Managers for inclusion in the Prospectus Supplement, the Prospectus or any Issuer Free Writing Prospectus.

(c) Promptly after receipt by an indemnified party under this Section 7 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against the indemnifying party under this Section 7, notify the indemnifying party in writing of the commencement thereof; but the failure so to notify the indemnifying party (i) will not relieve it from liability under paragraph (a) or (b) above unless and to the extent it did not otherwise learn of such action and such failure results in the forfeiture by the indemnifying party of substantial rights and defenses and (ii) will not, in any event, relieve the indemnifying party from any obligations to any indemnified party other than the indemnification obligation provided in paragraph (a) or (b) above. The indemnifying party shall be entitled to appoint counsel of the indemnifying party's choice at the indemnifying party's expense to represent the indemnified party in any action for which indemnification is sought (in which case the indemnifying party shall not thereafter be responsible for the fees and expenses of any separate counsel retained by the indemnified party or parties except as set forth below); provided, however, that such counsel shall be satisfactory to the indemnified party. Notwithstanding the indemnifying party's election to appoint counsel to represent the indemnified party in an action, the indemnified party shall have the right to employ separate counsel (including local counsel), and the indemnifying party shall bear the reasonable fees, costs and expenses of such separate counsel if (i) the use of counsel chosen by the indemnifying party to represent the indemnified party would present such counsel with a conflict of interest, (ii) the actual or potential defendants in, or targets of, any such action include both the indemnified party and the indemnifying party and the indemnified party shall have reasonably concluded that there may be legal defenses available to it and/or other indemnified parties which are different from or additional to those available to the indemnifying party, (iii) the indemnifying party shall not have employed counsel satisfactory to the indemnified party to represent the indemnified party within a reasonable time after notice of the institution of such action or (iv) the indemnifying party shall authorize the indemnified party to employ separate counsel at the expense of the indemnifying party. An indemnifying party will not, without the prior written consent of the indemnified parties, settle or compromise or consent to the entry of any judgment with respect to any pending or threatened claim, action, suit or proceeding in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified parties are actual or potential parties to such claim or action) unless such settlement, compromise or consent (i) includes an unconditional release of each indemnified party from all liability arising out of such claim, action, suit or proceeding and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any indemnified party.

(d) In the event that the indemnity provided in paragraph (a) or (b) of this Section 7 is unavailable to or insufficient to hold harmless an indemnified party for any reason, the Company and the Managers severally agree to contribute to the aggregate losses, claims, damages and liabilities (including legal or other expenses reasonably incurred in connection with investigating or defending the same) (collectively, “Losses”) to which the Company and one or more of the Managers may be subject in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and by the Managers, on the other, from the offering of the Shares. If the allocation provided by the immediately preceding sentence is unavailable for any reason, the Company and the Managers severally shall contribute in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company, on the one hand, and of the Managers, on the other, in connection with the statements or omissions which resulted in such Losses as well as any other relevant equitable considerations. Benefits received by the Company shall be deemed to be equal to the total net proceeds from the offering (before deducting expenses) received by it, and benefits received by the Managers shall be deemed to be equal to the total underwriting discounts and commissions determined by this Agreement or any applicable Terms Agreement. Relative fault shall be determined by reference to, among other things, whether any untrue or any alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information provided by the Company, on the one hand, or the Managers, on the other, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such untrue statement or omission. The Company and the Managers agree that it would not be just and equitable if contribution were determined by pro rata allocation or any other method of allocation which does not take account of the equitable considerations referred to above. Notwithstanding the provisions of this paragraph, in no event shall a Manager be required to contribute any amount in excess of the amount by which the underwriting discount or commission, as the case may be, applicable to the Shares purchased by the Manager hereunder exceeds the amount of any damages that such Manager has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. Notwithstanding the provisions of this paragraph, 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. For purposes of this Section 7, each person who controls a Manager within the meaning of either the Securities Act or the Exchange Act and each director, officer, employee, affiliate and agent of a Manager shall have the same rights to contribution as such Manager, and each person who controls the Company within the meaning of either the Securities Act or the Exchange Act, each officer of the Company who shall have signed the Registration Statement and each director of the Company shall have the same rights to contribution as the Company, subject in each case to the applicable terms and conditions of this paragraph.

8. Termination.

(a) The Company shall have the right, by giving written notice as hereinafter specified, to terminate the provisions of this Agreement relating to the solicitation of offers to purchase the Shares in its sole discretion at any time. Any such termination shall be without liability of any party to any other party except that (i) if Shares have been sold through a Manager for the Company, then Section 4(s) shall remain in full force and effect with respect to such Manager and the Company, (ii) with respect to any pending sale, through the Designated Manager for the Company, the obligations of the Company, including in respect of compensation of the Designated Manager, shall remain in full force and effect notwithstanding the termination and (iii) the provisions of Sections 2, 5, 7, 9, 10, 12, 13 and 14 of this Agreement shall remain in full force and effect notwithstanding such termination.

(b) Each Manager shall have the right, by giving written notice as hereinafter specified, to terminate the provisions of this Agreement relating to the solicitation of offers to purchase the Shares in its sole discretion at any time, with respect to such Manager only. Any such termination shall be without liability of any party to any other party except that the provisions of Sections 2, 5, 7, 9, 10, 12, 13 and 14 of this Agreement shall remain in full force and effect with respect to such Manager notwithstanding such termination. Following any such termination by a Manager, this Agreement shall remain in effect as to each other Manager that has not exercised its right to terminate the provisions of this Agreement pursuant to this Section 8(b), and any obligations and rights of the Managers under this Agreement shall be satisfied by or afforded to, as applicable, only such other Managers.

(c) This Agreement shall automatically terminate upon the earlier of (i) the issuance and sale of all of the Shares by or through the Managers on the terms and subject to the conditions set forth in this Agreement and (ii) the third anniversary of the date of this Agreement.

(d) This Agreement shall remain in full force and effect unless terminated pursuant to Sections 8(a), (b) or (c) above or otherwise by mutual agreement of the parties; provided that any such termination by mutual agreement shall in all cases be deemed to provide that Sections 2, 5, 7, 9, 10, 12, 13 and 14 shall remain in full force and effect.

(e) Any termination of this Agreement pursuant to Sections 8(a) or (b) above shall be effective on the date specified in such notice of termination. If such termination shall occur prior to the Settlement Date or Time of Delivery for any sale of the Shares, such sale shall, subject to Section 6 hereof, settle in accordance with the provisions of Section 3(e) of this Agreement.

(f) In the case of any purchase of Shares by a Manager pursuant to a Terms Agreement, the obligations of such Manager pursuant to such Terms Agreement shall be subject to termination, in the absolute discretion of such Manager, by notice given to the Company prior to the Time of Delivery relating to such Shares, if at any time prior to such delivery and payment (i) trading in the Company's Common Stock shall have been suspended by the SEC or the Nasdaq Global Market or trading in securities generally on the New York Stock Exchange or the Nasdaq Stock Market shall have been suspended or limited or minimum prices shall have been established on either of such exchanges, (ii) a banking moratorium shall have been declared either by Federal or New York State authorities, (iii) there shall have occurred a material disruption in commercial banking or securities settlement or clearance services or (iv) there shall have occurred any outbreak or escalation of hostilities, declaration by the United States of a national emergency or war, or other calamity or crisis the effect of which on financial markets is such as to make it, in the sole judgment of the Managers, impractical or inadvisable to proceed with the offering or delivery of the Shares as contemplated by the Prospectus (exclusive of any amendment or supplement thereto).

9. Representations and Indemnities to Survive. The respective agreements, representations, warranties, indemnities and other statements of the Company or its officers and of the Managers set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation made by or on behalf of any Manager or the Company or any of the officers, directors, employees, agents, affiliates or controlling persons referred to in Section 7 hereof, and will survive delivery of and payment for the Shares.

10. Notices. All notices and other communications hereunder will be in writing and will be deemed to have been duly given if mailed or transmitted by any standard form of telecommunication. Notices to Cowen and Company, LLC will be directed to Cowen and Company, LLC at 599 Lexington Avenue, New York, NY 10022, fax no. 646-562-1130, Attention: General Counsel, email: Bradley.friedman@cowen.com, with a copy (which shall not constitute notice) to Davis Polk & Wardwell LLP at 450 Lexington Avenue, New York, New York 10017, Attention: Richard D. Truesdell, Jr., email: Richard.Truesdell@davispolk.com. Notices to the Company will be directed to Applied Therapeutics, Inc., 545 Fifth Avenue, Suite 1400, New York, New York 10017, Attention: Shoshana Shendelman, with a copy (which shall not constitute notice) to Skadden, Arps, Slate, Meagher & Flom LLP, One Manhattan West, New York, New York 10001, Attention: Andrea Nicolas, email: Andrea.Nicolas@skadden.com, and Michael Schwartz, email: Michael.Schwartz@skadden.com.

11. Successors. This Agreement will inure to the benefit of and be binding upon the parties hereto and their respective successors and the officers, directors, employees, agents and controlling persons referred to in Section 7 hereof, and no other person will have any right or obligation hereunder.

12. Jurisdiction. The Company agrees that any suit, action or proceeding against the Company brought by any Manager, the directors, officers, employees, affiliates and agents of any Manager, or by any person who controls any Manager, arising out of or based upon this Agreement or the transactions contemplated hereby may be instituted in any State or U.S. federal court in The City of New York and County of New York, and waives any objection which it may now or hereafter have to the laying of venue of any such proceeding, and irrevocably submits to the non-exclusive jurisdiction of such courts in any suit, action or proceeding.

13. Recognition of the U.S. Special Resolution Regimes.

(a) In the event that any Manager that is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Manager of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that any Manager that is a Covered Entity or a BHC Act Affiliate of such Manager becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Manager are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

As used in this Section 13, "BHC Act Affiliate" has the meaning assigned to the term "affiliate" in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k); "Covered Entity" means any of the following: (i) a "covered entity" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b), (ii) a "covered bank" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b) or (iii) a "covered FSI" as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b); "Default Right" has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable; and "U.S. Special Resolution Regime" means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

14. No Fiduciary Duty. The Company hereby acknowledges that (a) the purchase and sale of the Shares pursuant to this Agreement is an arm's-length commercial transaction between the Company, on the one hand, and the Managers and any affiliate through which it may be acting, on the other, (b) each Manager is acting solely as sales agent and/or principal in connection with the purchase and sale of the Company's securities and not as a fiduciary of the Company and (c) the Company's engagement of the Managers in connection with the offering and the process leading up to the offering is as independent contractors and not in any other capacity. Furthermore, the Company agrees that it is solely responsible for making its own judgments in connection with the offering (irrespective of whether any of the Managers has advised or is currently advising the Company on related or other matters). The Company agrees that it will not claim that the Managers have rendered advisory services of any nature or respect, or owe an agency, fiduciary or similar duty to the Company, in connection with such transaction or the process leading thereto.

15. Integration. This Agreement and any Terms Agreement supersede all prior agreements and understandings (whether written or oral) between the Company and the Managers, or any of them, with respect to the subject matter hereof.

16. Applicable Law. This Agreement and any Terms Agreement will be governed by and construed in accordance with the laws of the State of New York applicable to contracts made and to be performed within the State of New York.

17. Waiver of Jury Trial. The Company and the Managers hereby irrevocably waive, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement, any Terms Agreement or the transactions contemplated hereby or thereby.

18. Counterparts. This Agreement and any Terms Agreement may be signed in one or more counterparts, each of which shall constitute an original and all of which together shall constitute one and the same agreement.

19. Headings. The section headings used in this Agreement and any Terms Agreement are for convenience only and shall not affect the construction hereof.

[Signature pages follow]

If the foregoing is in accordance with your understanding of our agreement, please sign and return to us the enclosed duplicate hereof, whereupon this letter and your acceptance shall represent a binding agreement among the Company and the several Managers.

Very truly yours,

Applied Therapeutics, Inc.

By: /s/ Shoshana Shendelman

Name: Shoshana Shendelman

Title: Chief Executive Officer

*[Signature Page to Equity Distribution Agreement]*

---

The foregoing Agreement is hereby confirmed  
and accepted as of the date first above written.

Cowen and Company, LLC

By: Cowen and Company, LLC

By: /s/ Michael Murphy

Name: Michael Murphy

Title: Managing Director

*[Signature Page to Equity Distribution Agreement]*

---



SCHEDULE I

Schedule of Free Writing Prospectuses included in the Disclosure Package:

[None.]

Schedule I-1

---

ANNEX A

**[Form of Terms Agreement]**

[●]

Common Stock

TERMS AGREEMENT

\_\_\_\_\_, 20\_\_\_\_

[name/address of designated manager]

Dear Sirs:

Applied Therapeutics, Inc., a corporation organized under the laws of the State of Delaware (the “Company”), proposes, subject to the terms and conditions stated herein and in the Equity Distribution Agreement, dated January [●], 2022 (the “Equity Distribution Agreement”), between the Company and Cowen and Company, LLC to issue and sell to [●], the securities specified in the Schedule I hereto (the “Purchased Shares”), and solely for the purpose of covering over-allotments, to grant to [name of designated manager] (the “Designated Manager”) the option to purchase the additional securities specified in the Schedule I hereto (the “Additional Shares”). **[Include only if the Designated Manager has an over-allotment option]**

[The Designated Manager shall have the right to purchase from the Company all or a portion of the Additional Shares as may be necessary to cover over-allotments made in connection with the offering of the Purchased Shares, at the same purchase price per share to be paid by the Designated Manager to the Company for the Purchased Shares. This option may be exercised by the Designated Manager at any time (but not more than once) on or before the thirtieth day following the date hereof, by written notice to the Company. Such notice shall set forth the aggregate number of shares of Additional Shares as to which the option is being exercised, and the date and time when the Additional Shares are to be delivered (such date and time being herein referred to as the “Option Closing Date”); provided, however, that the Option Closing Date shall not be earlier than the Time of Delivery (as set forth in the Schedule I hereto) nor earlier than the second business day after the date on which the option shall have been exercised nor later than the fifth business day after the date on which the option shall have been exercised. Payment of the purchase price for the Additional Shares shall be made at the Option Closing Date in the same manner and at the same office as the payment for the Purchased Shares.] **[Include only if the Designated Manager has an over-allotment option]**

Each of the provisions of the Equity Distribution Agreement not specifically related to the solicitation by the Designated Manager, as agent of the Company, of offers to purchase securities is incorporated herein by reference in its entirety, and shall be deemed to be part of this Terms Agreement to the same extent as if such provisions had been set forth in full herein. Each of the representations and warranties set forth therein shall be deemed to have been made at and as of the date of this Terms Agreement [and] [,] the Time of Delivery [and any Option Closing Date] **[Include only if the Designated Manager has an over-allotment option]**, except that each representation and warranty in Section 2 of the Equity Distribution Agreement which makes reference to the Prospectus (as therein defined) shall be deemed to be a representation and warranty as of the date of the Equity Distribution Agreement in relation to the Prospectus, and also a representation and warranty as of the date of this Terms Agreement [and] [,] the Time of Delivery [and any Option Closing Date] **[Include only if the Designated Manager has an over-allotment option]** in relation to the Prospectus as amended and supplemented to relate to the Purchased Shares.

An amendment to the Registration Statement (as defined in the Equity Distribution Agreement), or a supplement to the Prospectus, as the case may be, relating to the Purchased Shares [and the Additional Shares] **[Include only if the Designated Manager has an over-allotment option]**, in the form heretofore delivered to the Manager is now proposed to be filed with the Securities and Exchange Commission.

Subject to the terms and conditions set forth herein and in the Equity Distribution Agreement which are incorporated herein by reference, the Company agrees to issue and sell to the Designated Manager and the latter agrees to purchase from the Company the number of shares of the Purchased Shares at the time and place and at the purchase price set forth in the Schedule I hereto.

If the foregoing is in accordance with your understanding, please sign and return to us a counterpart hereof, whereupon this Terms Agreement, including those provisions of the Equity Distribution Agreement incorporated herein by reference, shall constitute a binding agreement between the Managers and the Company.

[●]

By: [●]

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

Name:

Title:

[●]

By: [●]

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

Name:

Title:

ACCEPTED as of the date first written above.

· **[Designated Manager]**

·

· By: \_\_\_\_\_

· Name:

· Title:

Title of Purchased Shares [and Additional Shares]:

Common Stock, par value \$0.0001 per share

Number of Shares of Purchased Shares:

[Number of Shares of Additional Shares:]

[Price to Public:]

Purchase Price by Cowen and Company, LLC:

Method of and Specified Funds for Payment of Purchase Price:

By wire transfer to a bank account specified by the Company in same day funds.

Method of Delivery:

Free delivery of the Shares to the Manager's account at The Depository Trust Company in return for payment of the purchase price.

Time of Delivery:

Closing Location:

Documents to be Delivered:

The following documents referred to in the Equity Distribution Agreement shall be delivered as a condition to the closing at the Time of Delivery [and on any Option Closing Date]:

- (1) The opinion referred to in Section 4(k).
- (2) The opinion referred to in Section 4(l).
- (3) The opinion referred to in Section 4(m).
- (3) The accountants' letter referred to in Section 4(n).
- (4) The officers' certificate referred to in Section 4(j).
- (5) Such other documents as the Manager shall reasonably request.

ANNEX B

List of Subsidiaries:

None

Annex B-1

---

**[Form of Opinion of Company Counsel]**

---

**[Form of Opinion of Company IP Counsel]**

Exhibit B-1

---



SKADDEN, ARPS, SLATE, MEAGHER & FLOM LLP  
 ONE MANHATTAN WEST  
 NEW YORK, NY 10001

TEL: (212) 735-3000  
 FAX: (212) 735-2000  
 www.skadden.com

## FIRM/AFFILIATE OFFICES

BOSTON  
 CHICAGO  
 HOUSTON  
 LOS ANGELES  
 PALO ALTO  
 WASHINGTON, D.C.  
 WILMINGTON

BEIJING  
 BRUSSELS  
 FRANKFURT  
 HONG KONG  
 LONDON  
 MOSCOW  
 MUNICH  
 PARIS  
 SÃO PAULO  
 SEOUL  
 SHANGHAI  
 SINGAPORE  
 TOKYO  
 TORONTO

January 26, 2022

Applied Therapeutics, Inc.  
 545 Fifth Avenue, Suite 1400  
 New York, NY 10173

RE: Applied Therapeutics, Inc.  
Common Stock At-the-Market Offering Program

Ladies and Gentlemen:

We have acted as special United States counsel to Applied Therapeutics, Inc., a Delaware corporation (the "Company"), in connection with the Company's sale of up to \$100,000,000 aggregate gross sales price of shares (the "Securities") of common stock, par value \$0.0001 per share of the Company, pursuant to the Equity Distribution Agreement, dated January 26, 2022, between Cowen and Company, LLC, as agent and/or principal and the Company (the "Equity Distribution Agreement").

This opinion is being furnished in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act of 1933 (the "Securities Act").

In rendering the opinion stated herein, we have examined and relied upon the following:

(a) the registration statement on Form S-3 (File No. 333-238948) of the Company relating to the Securities and other securities of the Company filed with the Securities and Exchange Commission (the "Commission") on June 5, 2020 under the Securities Act and Pre-Effective Amendment No. 1 thereto allowing for delayed offerings pursuant to Rule 415 of the General Rules and Regulations under the Securities Act (the "Rules and Regulations"), including information deemed to be a part of the registration statement pursuant to Rule 430B of the Rules and Regulations and the Notice of Effectiveness of the Commission posted on its website declaring such registration statement effective on June 15, 2020 (such registration statement, as so amended, being hereinafter referred to as the "Registration Statement");

- (b) the prospectus, dated June 15, 2020 (the “Base Prospectus”), which forms a part of and is included in the Registration Statement;
- (c) the prospectus supplement, dated January 26, 2022 (together with the Base Prospectus, the “Prospectus Supplement”), relating to the offering of the Securities, in the form filed with the Commission pursuant to Rule 424(b) of the Rules and Regulations;
- (d) an executed copy of the Equity Distribution Agreement;
- (e) an executed copy of a certificate of Shoshana Shendelman, Secretary of the Company, dated the date hereof (the “Secretary’s Certificate”);
- (f) a copy of the Company’s Amended and Restated Certificate of Incorporation (the “Certificate of Incorporation”), certified by the Secretary of State of the State of Delaware, as of the date hereof and certified pursuant to the Secretary’s Certificate;
- (g) a copy of the Company’s Amended and Restated Bylaws (the “Bylaws”), as amended and in effect as of the date hereof, certified pursuant to the Secretary’s Certificate; and
- (h) a copy of certain resolutions of the Board of Directors of the Company, adopted on January 25, 2022, certified pursuant to the Secretary’s Certificate.

We have also examined originals or copies, certified or otherwise identified to our satisfaction, of such records of the Company and such agreements, certificates and receipts of public officials, certificates of officers or other representatives of the Company and others, and such other documents as we have deemed necessary or appropriate as a basis for the opinion stated below, including the factual representations and warranties contained in the Equity Distribution Agreement.

In our examination, we have assumed the genuineness of all signatures, including electronic signatures, the legal capacity and competency of all natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as facsimile, electronic, certified or photocopied copies, and the authenticity of the originals of such copies. With respect to our opinion set forth below, we have assumed that the issuance of the Securities will not violate or conflict with any agreement or instrument binding on the Company (except that we do not make this assumption with respect to the Certificate of Incorporation, the Bylaws or those agreements or instruments expressed to be governed by the laws of the State of New York which are listed in Part II of the Registration Statement or the Company’s most recent Annual Report on Form 10-K). As to any facts relevant to the opinion stated herein that we did not independently establish or verify, we have relied upon statements and representations of officers and other representatives of the Company and others and of public officials, including the facts and conclusions set forth in the Secretary’s Certificate and the factual representations and warranties contained in the Equity Distribution Agreement.

---

We do not express any opinion with respect to the laws of any jurisdiction other than the General Corporation Law of the State of Delaware (the "DGCL").

Based upon the foregoing and subject to the qualifications and assumptions stated herein, we are of the opinion that when (i) certificates in the form required under the DGCL representing the Securities are duly executed and countersigned by the transfer agent; and (ii) the Securities are registered in the Company's share registry and delivered upon payment of the consideration therefor determined by the Board of Directors, the Securities, when issued and sold in accordance with the provisions of the Equity Distribution Agreement, will be duly authorized by all requisite corporate action on the part of the Company under the DGCL and validly issued, fully paid and nonassessable, provided that the consideration therefor is not less than \$0.0001 per Share.

We hereby consent to the reference to our firm under the heading "Legal Matters" in the Prospectus. We also hereby consent to the filing of this opinion with the Commission as an exhibit to the Company's Current Report on Form 8-K being filed on the date hereof and incorporated by reference into the Registration Statement. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the Rules and Regulations.

Very truly yours,

/s/ Skadden, Arps, Slate, Meagher & Flom LLP

MJS

---