

**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): July 24, 2019

CARA THERAPEUTICS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-36279
(Commission
File Number)

75-3175693
(IRS Employer
Identification No.)

**4 Stamford Plaza
107 Elm Street, 9th Floor
Stamford, Connecticut**
(Address of principal executive offices)

06902
(Zip Code)

Registrant's telephone number, including area code: (203) 406-3700

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

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

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value \$0.001 per share	CARA	The Nasdaq Stock Market LLC

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 8.01. Other Events.

On July 29, 2019, Cara Therapeutics, Inc. (the “Company”) closed an underwritten public offering of 6,325,000 shares of its common stock (the “Offering”). The shares were sold pursuant to an underwriting agreement, dated July 24, 2019 (the “Underwriting Agreement”), among the Company and J.P. Morgan Securities LLC and Jefferies LLC, as representatives of the several underwriters named therein, at a price to the public of \$23.00 per share. The closing of the Offering included the issuance and sale of 825,000 additional shares of the Company’s common stock pursuant to the full exercise of the underwriters’ option to purchase additional shares pursuant to the Underwriting Agreement. The gross proceeds to the Company from the Offering were approximately \$145.5 million, before deducting the underwriting discounts and commissions and estimated offering expenses payable by the Company.

The underwriting agreement contains customary representations, warranties, covenants and agreements by the Company, indemnification obligations of the Company and the underwriters, including for liabilities under the Securities Act of 1933, as amended, other obligations of the parties and termination provisions. The representations, warranties and covenants contained in the underwriting agreement were made only for purposes of such agreement and as of specific dates, were solely for the benefit of the parties to the underwriting agreement, and may be subject to limitations agreed upon by the contracting parties.

The Offering was made by means of a written prospectus supplement and accompanying prospectus forming part of a shelf registration statement on Form S-3 (Registration Statement No. 333-230333), previously filed with the Securities and Exchange Commission (“SEC”) and declared effective by the SEC on April 4, 2019.

The underwriting agreement is filed as Exhibit 1.1 to this Current Report on Form 8-K, and the above description of the terms of the underwriting agreement is qualified in its entirety by reference to such exhibit. A copy of the opinion of Cooley LLP relating to the legality of the issuance and sale of the shares in the Offering is filed as Exhibit 5.1 to this Current Report on Form 8-K.

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

On July 24, 2019, the Company issued a press release announcing the pricing of the Offering. The press release is filed as Exhibit 99.1 to this Current Report on Form 8-K.

On July 29, 2019, the Company issued a press release announcing the closing of the Offering and the full exercise of the underwriters’ option to purchase additional shares. The press release is filed as Exhibit 99.2 to this Current Report on Form 8-K.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
1.1	<u>Underwriting Agreement, dated July 24, 2019.</u>
5.1	<u>Opinion of Cooley LLP.</u>
23.1	<u>Consent of Cooley LLP (included in Exhibit 5.1).</u>
99.1	<u>Press Release, dated July 24, 2019.</u>
99.2	<u>Press Release, dated July 29, 2019.</u>

SIGNATURES

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

CARA THERAPEUTICS, INC.

By: /s/ Mani Mohindru, Ph.D.

Mani Mohindru, Ph.D.

Chief Financial Officer

(Principal Financial and Accounting Officer)

Date: July 29, 2019

5,500,000 Shares

CARA THERAPEUTICS, INC.

Common Stock

UNDERWRITING AGREEMENT

July 24, 2019

J.P. Morgan Securities LLC
Jefferies LLC
As representatives of the several Underwriters
named in Schedule I hereto

c/o J.P. Morgan Securities LLC
383 Madison Avenue
New York, New York 10179

and

c/o Jefferies LLC
520 Madison Avenue
New York, New York 10022

Ladies and Gentlemen:

CARA THERAPEUTICS, INC., a Delaware corporation (the “Company”), proposes to issue and sell to the several underwriters named in Schedule I hereto (the “Underwriters”) for whom you are acting as representatives (the “Representatives”) an aggregate of 5,500,000 shares (the “Firm Shares”) of the common stock, par value \$0.001 per share, of the Company (“Common Stock”). The Company also proposes to sell to the several Underwriters, at the option of the underwriters, up to an additional 825,000 shares of Common Stock (the “Option Shares”). The Firm Shares and the Option Shares are hereinafter referred to collectively as the “Shares”.

The Company confirms as follows its agreements with the Representatives and the several other Underwriters.

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

(i) The Company has prepared and filed with the Securities and Exchange Commission (the “Commission”) a registration statement on Form S-3 (File No. 333-230333), and such amendments to such registration statement as may have been required to the date of this Agreement, under the Securities Act of 1933, as amended (the “Securities Act”), and the rules and regulations (the “Rules and Regulations”) of the Commission thereunder. Such

registration statement, at any given time, including any amendments thereto to such time, and the Rule 462(b) Registration Statement (as defined below), if any, the exhibits and any schedules thereto at such time, the information contained in the form of final prospectus filed with the Commission pursuant to Rule 424(b) under the Securities Act and deemed by virtue of Rule 430B under the Securities Act to be part of the Initial Registration Statement at the time it was declared effective or such part of the Rule 462(b) Registration Statement, if any, the documents incorporated by reference therein pursuant to Item 12 of Form S-3 under the Securities Act at such time and the documents and information otherwise deemed to be a part thereof or included therein by Rule 430B under the Securities Act (the "Rule 430B Information") or otherwise pursuant to the Rules and Regulations at such time, is herein called the "Registration Statement." The Registration Statement at the time it originally became effective is herein called the "Initial Registration Statement."

The prospectus in the form in which it appeared in the Initial Registration Statement is herein called the "Base Prospectus." Each preliminary prospectus supplement to the Base Prospectus (including the Base Prospectus as so supplemented) that described the Shares and the offering thereof, that omitted the Rule 430B Information and that was used prior to the filing of the final prospectus supplement referred to in the following sentence is herein called a "Preliminary Prospectus." The Preliminary Prospectus relating to the Shares that was included in the Registration Statement immediately prior to the Applicable Time (as defined in Section 1(iv) hereof) is hereinafter called the "Pricing Prospectus". Promptly after the execution and delivery of this Agreement, the Company will prepare and file with the Commission a final prospectus supplement to the Base Prospectus relating to the Shares and the offering thereof in accordance with the provisions of Rule 430B and Rule 424(b) of the Rules and Regulations. Such final supplemental form of prospectus (including the Base Prospectus as so supplemented), in the form filed with the Commission pursuant to Rule 424(b) under the Securities Act is herein called the "Prospectus." Any "issuer free writing prospectus" as defined in Rule 433 under the Securities Act, is hereinafter called the "Issuer Free Writing Prospectus". Any reference herein to the Base Prospectus, any Preliminary Prospectus, the Pricing Prospectus 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 under the Securities Act as of the date of such prospectus.

For purposes of this Agreement, all references to the Registration Statement, the Base Prospectus, any Preliminary Prospectus, the Pricing Prospectus, the Prospectus or any amendment or supplement to any of the foregoing shall be deemed to include the copy filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval System ("EDGAR"). All references in this Agreement to financial statements and schedules and other information that is "described," "contained," "included" or "stated" in the Registration Statement, the Base Prospectus, any Preliminary Prospectus, the Pricing Prospectus or the Prospectus (or other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information that is incorporated by reference in or otherwise deemed by the Rules and Regulations to be a part of or included in the Registration Statement, the Base Prospectus, any Preliminary Prospectus, the Pricing Prospectus or the Prospectus, as the case may be. Except as specifically noted, all references in this Agreement to amendments or supplements to the Registration Statement, the Base Prospectus, any Preliminary Prospectus, the Pricing Prospectus or the Prospectus shall be deemed to mean and include the subsequent filing of any document under the Securities Exchange Act of 1934, as amended (the

“Exchange Act”), and which is deemed to be incorporated by reference therein or otherwise deemed by the Rules and Regulations to be a part thereof. At the time of the filing of the Initial Registration Statement with the Commission, the conditions for use of Form S-3, set forth in the General Instructions thereto, were satisfied. The Initial Registration Statement was declared effective by the Commission under the Securities Act on April 4, 2019. Other than a registration statement, if any, increasing the size of the offering (a “Rule 462(b) Registration Statement”), filed pursuant to Rule 462(b) under the Securities Act, which became effective upon filing, no other document with respect to the Initial Registration Statement has heretofore been filed with the Commission. No stop order suspending the effectiveness of the Registration Statement, any post-effective amendment thereto or the Rule 462(b) Registration Statement, if any, has been issued, no proceeding pursuant to Section 8A of the Securities Act has been initiated or, to the Company’s knowledge, threatened by the Commission. Any request on the part of the Commission for additional information from the Company has been satisfied in all material respects.

(ii) The Registration Statement, any Rule 462(b) Registration Statement and any post-effective amendments thereto, at the time that it became effective (including each deemed effective date with respect to the Underwriters pursuant to Rule 430B or otherwise under the Securities Act), at all other subsequent times until and including the Closing Date (as defined herein) (and, if any Option Shares are purchased, at each Option Closing Date) (as defined herein)), and the Prospectus, at the time of filing or the time of first use within the meaning of the Rules and Regulations, at all subsequent times until and including the Closing Date and the Option Closing Date, as applicable, and at the Closing Date and Option Closing Date, as applicable, complied and will comply in all material respects with the requirements of the Securities Act, the Rules and Regulations and the Exchange Act, and did not and will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Prospectus, as amended or supplemented, as of its date, or the time of first use within the meaning of the Rules and Regulations, at all subsequent times until and including the Closing Date and the Option Closing Date, as applicable, and at the Closing Date and the Option Closing Date, as applicable, did not and will not include or will include an untrue statement of a material fact or omitted or will omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The representations and warranties in set forth in the two immediately preceding sentences do not apply to statements in or omissions from the Registration Statement or the Prospectus made in reliance upon and in strict conformity with information furnished to the Company in writing by any Underwriter through the Representatives expressly for use in the Registration Statement or the Prospectus, it being understood and agreed that the only such information provided by any Underwriter is that described as such in Section 9(b) hereof. No order preventing or suspending the use of any Preliminary Prospectus, the Pricing Prospectus or any Issuer Free Writing Prospectus has been issued by the Commission. The documents incorporated by reference in any Preliminary Prospectus or the Prospectus complied, and any further documents so incorporated will comply, when filed with the Commission, in all material respects to the requirements of the Exchange Act or the Securities Act, as applicable, and the rules and regulations of the Commission thereunder. The documents incorporated by reference in any Preliminary Prospectus or the Prospectus did not, and any further documents filed and incorporated by reference therein will not, when filed with the Commission, contain an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were

made, not misleading. The Pricing Prospectus complied, and the Prospectus will comply, in all material respects when filed with the Commission pursuant to Rule 424(b) under the Securities Act and on the Closing Date and the Option Closing date, as applicable, to the requirements of the Securities Act and the rules and regulations thereunder.

(iii) Each Preliminary Prospectus, Pricing Prospectus, Issuer Free Writing Prospectus and the Prospectus filed as part of the Initial Registration Statement as originally filed or as part of any amendment thereto, or filed pursuant to Rule 424 under the Securities Act, complied when so filed in all material respects with the requirements of the Securities Act, the Rules and Regulations and the Exchange Act and each Preliminary Prospectus, Pricing Prospectus, Issuer Free Writing Prospectus and the Prospectus delivered to the Underwriters for use in connection with this offering was identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T;

(iv) For the purposes of this Agreement, the “Applicable Time” is 7:00 P.M., New York time, on the date of this Agreement; the Registration Statement, Pricing Prospectus, the Issuer Free Writing Prospectuses filed or used by the Company on or prior to the Applicable Time, and the other documents and information listed in Schedule II hereto, taken together (excluding any amendments or supplements subsequent to the Applicable Time) (collectively, the “Pricing Disclosure Package”) as of the Applicable Time, did not include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; and each Issuer Free Writing Prospectus, if any, listed on Schedule II hereto does not conflict with the information contained in the Registration Statement, the Pricing Prospectus or the Prospectus and each such Issuer Free Writing Prospectus, as supplemented by and taken together with the Pricing Disclosure Package as of the Applicable Time, did not include any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to statements or omissions made in an Issuer Free Writing Prospectus in reliance upon and in strict conformity with information furnished in writing to the Company by an Underwriter through the Representatives expressly for use therein, it being understood and agreed that the only such information provided by any Underwriter is that described in Section 9(b) hereof;

(v) The Company has filed a registration statement pursuant to the Exchange Act to register the Common Stock, and such registration statement has been declared effective; At the time of filing the Initial Registration Statement the Company was not and is not an “ineligible issuer,” as defined under Rule 405 under the Securities Act; From the time of initial filing of the Registration Statement with the Commission (or, if earlier, the first date on which the Company engaged directly or through any Person authorized to act on its behalf in any Testing-the-Waters Communication (as defined below)) through the date hereof, the Company has been and is an “emerging growth company,” as defined in Section 2(a)(19) of the Securities Act (an “Emerging Growth Company”);

(vi) The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware, with power and authority

(corporate and other) to own, lease and operate its properties and conduct its business as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus and to enter into and perform its obligations under this Agreement, and has been duly qualified as a foreign corporation for the transaction of business and is in good standing under the laws of each other jurisdiction in which it owns or leases properties or conducts any business so as to require such qualification, except where the failure so to qualify or be in good standing would not have a material adverse effect on the Company;

(vii) The Company has no subsidiaries;

(viii) The Company has an authorized capitalization as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, and all of the issued and outstanding shares of capital stock of the Company have been duly and validly authorized and issued, are fully paid and non-assessable and conform to the descriptions thereof contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus; and none of the issued and outstanding shares of capital stock of the Company are subject to any preemptive or similar rights;

(ix) The Shares have been duly and validly authorized and, when issued and delivered to and paid for by the Underwriters in accordance with the terms of this Agreement, will be duly and validly issued and fully paid and non-assessable and will conform to the descriptions thereof contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus; and the issuance of such Shares is not subject to any preemptive or similar rights;

(x) This Agreement has been duly authorized, executed and delivered by the Company;

(xi) The issue and sale of the Shares, the execution of this Agreement by the Company and the compliance by the Company with all of the provisions of this Agreement and the consummation of the transactions herein contemplated will not conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company is a party or by which the Company is bound or to which any of the property or assets of the Company is subject, nor will such action result in any violation of the provisions of the certificate or articles of incorporation or by-laws (or other organization documents) of the Company or any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or any of their properties; and no consent, approval, authorization, order, registration or qualification of or with any such court or governmental agency or body is required for the issue and sale of the Shares or the consummation by the Company of the transactions contemplated by this Agreement, except such consents, approvals, authorizations, registrations or qualifications as may be required under state securities or Blue Sky laws in connection with the purchase and distribution of the Shares by the Underwriters;

(xii) Ernst & Young LLP, who have certified certain financial statements of the Company, are independent public accountants as required by the Securities Act, the Rules and Regulations and the Public Company Accounting Oversight Board (United States).

The financial statements, together with related schedules and notes, included in the Registration Statement, the Pricing Disclosure Package and the Prospectus comply in all material respects with the requirements of the Securities Act and present fairly the consolidated financial position, results of operations and changes in financial position of the Company on the basis stated in the Registration Statement at the respective dates or for the respective periods to which they apply; such statements and related schedules and notes have been prepared in accordance with generally accepted accounting principles consistently applied throughout the periods involved, except as disclosed therein; and the selected financial data and the summary financial data included in the Registration Statement, the Pricing Disclosure Package or the Prospectus present fairly the information shown therein and have been compiled on a basis consistent with that of the financial statements included in the Registration Statement. Except as otherwise included therein, no historical or pro forma financial statements of the Company are required to be included or incorporated by reference in the Registration Statement. The interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with the Commission's rules and guidelines applicable thereto;

(xiii) The Company has not sustained since the date of the latest audited financial statements included in or incorporated by reference in the Pricing Disclosure Package any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Pricing Prospectus; and, since the respective dates as of which information is given in the Registration Statement, the Pricing Disclosure Package and the Pricing Prospectus, (1) there has not been any change in the capital stock or long-term debt of the Company, (2) there has not been any material adverse change, or any development involving a prospective material adverse change, in or affecting the general affairs, business, prospects, management, financial position, shareholders' equity or results of operations of the Company, (3) there have been no transactions entered into by, and no obligations or liabilities, contingent or otherwise, incurred by the Company, whether or not in the ordinary course of business, which are material to the Company or (4) there has been no dividend or distribution of any kind declared, paid or made by the Company on any class of its capital stock, in each case, otherwise than as set forth or contemplated in the Pricing Disclosure Package;

(xiv) The Company is not (1) in violation of its certificate or articles of incorporation or bylaws (or other organization documents) or (2) in violation of any law, ordinance, administrative or governmental rule or regulation applicable to the Company, or (3) in violation of any decree of any court or governmental agency or body having jurisdiction over the Company, or (4) in default in the performance of any obligation, agreement or condition contained in any bond, debenture, note or any other evidence of indebtedness or in any agreement, indenture, lease or other instrument to which the Company is a party or by which it or its properties may be bound, except, in the case of clauses (2), (3) and (4), where any such violation or default, individually or in the aggregate, would not have a material adverse effect on the general affairs, business, prospects, management, financial position, shareholders' equity or results of operations of the Company;

(xv) The Company has good and marketable title to all real and personal property owned by it, in each case free and clear of all liens, encumbrances and defects

except such as are described in the Registration Statement, the Pricing Disclosure Package or the Prospectus or such as do not materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company; and any real property and buildings held under lease by the Company are held under valid, subsisting and enforceable leases with such exceptions as are not material and do not interfere with the use made and proposed to be made of such property and buildings by the Company;

(xvi) Other than as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, there are no legal or governmental proceedings pending to which the Company is a party or of which any property of the Company is the subject which, if determined adversely to the Company, individually or in the aggregate, would have or may reasonably be expected to have a material adverse effect on the general affairs, business, prospects, management, financial position, shareholders' equity or results of operations of the Company, or would prevent or impair the consummation of the transactions contemplated by this Agreement, or which are required to be described in the Registration Statement or the Pricing Disclosure Package; and, to the best of the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or others;

(xvii) Other than as set forth in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company possesses all permits, licenses, approvals, consents and other authorizations (collectively, "Permits") issued by the appropriate federal, state, local or foreign regulatory agencies or bodies necessary to conduct the businesses now operated by them; the Company is in compliance with the terms and conditions of all such Permits and all of the Permits are valid and in full force and effect, except, in each case, where the failure so to comply or where the invalidity of such Permits or the failure of such Permits to be in full force and effect, individually or in the aggregate, would not have a material adverse effect on the general affairs, business, prospects, management, financial position, shareholders' equity or results of operations of the Company; and the Company has not received any notice of proceedings relating to the revocation or material modification of any such Permits;

(xviii) The Company owns or has obtained all necessary licenses for the patents, patent applications, patent rights, inventions, know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), copyrights, trademarks, service marks and trade names, and other intellectual property (collectively "Intellectual Property") described in the Registration Statement, the Pricing Disclosure Package or the Prospectus as being owned by or licensed to it or which are necessary for the conduct of its business as currently conducted or as currently proposed to be conducted (collectively, the "Company Intellectual Property"). To the knowledge of the Company: (i) there are no third parties who have rights to any Company Intellectual Property, except for customary reversionary rights of third-party licensors with respect to Intellectual Property that is disclosed in the Registration Statement, the Pricing Disclosure Package or the Prospectus as licensed to the Company; and (ii) there is no infringement, misappropriation or other violation by third parties of any Company Intellectual Property. There is no pending or, to the Company's knowledge, threatened action, suit, proceeding or claim by others: (A) challenging the Company's rights in or to any Company Intellectual Property, and the Company is unaware of any facts which would form a reasonable basis for any such action, suit, proceeding or claim; (B) challenging the validity, enforceability or scope of any Company Intellectual Property, and the Company is unaware of any

facts which would form a reasonable basis for any such action, suit, proceeding or claim; or (C) asserting that the Company infringes, misappropriates or otherwise violates, or would, upon the commercialization of any product or service described in the Registration Statement, the Pricing Disclosure Package or the Prospectus as under development, infringe, misappropriate or otherwise violate, any Intellectual Property rights of others, and the Company is unaware of any facts which would form a reasonable basis for any such action, suit, proceeding or claim. The Company has taken all steps reasonably necessary to secure their interest in the Company Intellectual Property, including obtaining all necessary assignments from each of its employees, consultants and contractors pursuant to a written agreement containing a present tense assignment of all Intellectual Property created by such employee, consultant or contractor. The Company has taken commercially reasonable steps to protect and maintain all Company Intellectual Property, including without limitation to preserve the confidentiality of any trade secrets. All Company Intellectual Property that is material to the Company's business is valid and enforceable. The Company is not in violation of any Company License Agreements (as defined below). The license agreements by which the Company has been licensed Intellectual Property owned by third parties ("Company License Agreements") are in full force and effect and constitute legal, valid and binding obligations of Company, and to the Company's knowledge, the other parties thereto;

(xix) No material labor dispute with the employees of the Company exists, or, to the knowledge of the Company, is imminent. The Company is not aware of any existing or imminent labor disturbance by the employees of any of its principal suppliers, manufacturers, customers or contractors, which, individually or in the aggregate, may reasonably be expected to result in a material adverse effect on the general affairs, business, prospects, management, financial position, shareholders' equity or results of operations of the Company;

(xx) The Company is insured by insurers of recognized financial responsibility against such losses and risks (including without limitation risks related to clinical trials and product liability) and in such amounts as are prudent and customary in the businesses in which they are engaged; the Company has not been refused any insurance coverage sought or applied for; and the Company has no reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not have a material adverse effect on the Company;

(xxi) The Company has made and keeps books, records and accounts, which, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company. The Company maintains a system of internal accounting controls sufficient to provide reasonable assurance that (1) transactions are executed in accordance with management's general or specific authorizations; (2) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain accountability for assets; (3) access to assets is permitted only in accordance with management's general or specific authorization; (4) 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 (5) the interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement is in conformity with generally accepted accounting principles and is updated as necessary to comply in all material respects with the requirements of the Securities Act, the Rules and Regulations and guidelines

applicable thereto and the Exchange Act and present fairly the consolidated financial position, results of operations and changes in financial position of the Company on the basis stated in the Registration Statement at the respective dates or for the respective periods to which they apply;

(xxii) Since the date of the latest audited financial statements included in or incorporated by reference in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (a) the Company has not been advised of (1) any significant deficiencies in the design or operation of internal controls that could adversely affect the ability of the Company to record, process, summarize and report financial data, or any material weaknesses in internal controls and (2) any fraud, whether or not material, that involves management or other employees who have a significant role in the internal controls of the Company, and (b) since that date, there has been no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting;

(xxiii) The Company maintains disclosure controls and procedures (as such term is defined in Rule 13a-15(e) of the Exchange Act) that comply with the requirements of the Exchange Act; such disclosure controls and procedures are effective;

(xxiv) All United States federal, state and foreign income and franchise tax returns and other material tax returns of the Company required by law to be filed have been filed and such tax returns are true, complete and correct in all material respects. All taxes required to be paid by the Company, and any related or similar assessments, fines or penalties levied, which are due and payable, have been paid, except assessments against which appeals have been or will be promptly taken and as to which adequate reserves in conformity with generally accepted accounting principles have been provided. The charges, accruals and reserves on the books of the Company in respect of any income and corporation tax liability for any years not finally determined are, in conformity with generally accepted accounting principles, adequate to meet any assessments or re-assessments for additional income tax for any years not finally determined;

(xxv) There are no statutes, regulations, documents or contracts of a character required to be described in the Registration Statement, the Pricing Disclosure Package or the Prospectus or to be filed as an exhibit to the Registration Statement which are not described or filed as required;

(xxvi) The Company is not in violation of any statute or any rule, regulation, decision or order of any governmental agency or body or any court, domestic or foreign, relating to the use, production, disposal or release of hazardous or toxic substances or relating to the protection or restoration of the environment or human exposure to hazardous or toxic substances (collectively, "environmental laws"), owns or operates any real property contaminated with any substance that is subject to any environmental laws, is liable for any off-site disposal or contamination pursuant to any environmental laws, or is subject to any claim relating to any environmental laws, which violation, contamination, liability or claim, individually or in the aggregate, would have a material adverse effect on the general affairs, business, prospects, management, financial position, shareholders' equity or results of operations of the Company; and the Company is not aware of any pending investigation which might lead to such a claim;

(xxvii) Each employee benefit plan, within the meaning of Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended (“ERISA”), that is maintained, administered or contributed to by the Company for employees or former employees of the Company and its affiliates has been maintained in compliance with its terms and the requirements of any applicable statutes, orders, rules and regulations, including but not limited to ERISA and the Internal Revenue Code of 1986, as amended (the “Code”), except to the extent that failure to so comply, individually or in the aggregate, would not have a material adverse effect on the general affairs, business, prospects, management, financial position, shareholders’ equity or results of operations of the Company. No prohibited transaction, within the meaning of Section 406 of ERISA or Section 4975 of the Code has occurred with respect to any such plan excluding transactions effected pursuant to a statutory or administrative exemption;

(xxviii) The Company nor, to the knowledge of the Company, any director, officer, employee, agent, affiliate or other person associated with or acting on behalf of the Company, has (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made or taken an act in furtherance of an offer, promise or authorization of any direct or indirect unlawful payment or benefit to any foreign or domestic government official or employee, including of any government-owned or controlled entity or of a public international organization, or any person acting in an official capacity for or on behalf of any of the foregoing, or any political party or party official or candidate for political office; (iii) violated or is in violation of any provision of the Foreign Corrupt Practices Act of 1977, as amended, or any applicable law or regulation implementing the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, or committed an offence under the Bribery Act 2010 of the United Kingdom or any other applicable anti-bribery or anti-corruption law; or (iv) made, offered, agreed, requested or taken an act in furtherance of any unlawful bribe or other unlawful benefit, including, without limitation, any unlawful rebate, payoff, influence payment, kickback or other unlawful or improper payment or benefit. The Company has instituted, maintain and enforce, and will continue to maintain and enforce policies and procedures designed to promote and ensure compliance with all applicable anti-bribery and anti-corruption laws;

(xxix) The operations of the Company are and have been conducted at all times in compliance in all material respects with applicable financial recordkeeping and reporting requirements, including those of the Currency and Foreign Transactions Reporting Act of 1970, as amended by the USA PATRIOT Act of 2001, the applicable money laundering statutes of all jurisdictions where the Company conducts business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines issued, administered or enforced by any governmental agency (collectively, the “Anti-Money Laundering Laws”), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company with respect to the Anti-Money Laundering Laws is pending or, to the knowledge of the Company, threatened;

(xxx) The Company nor, to the knowledge of the Company, any director, officer, employee, agent, affiliate or other person associated with or acting on behalf of the Company, is currently the subject or the target of any sanctions administered or enforced by the U.S. government (including, without limitation, the Office of Foreign Assets Control of the U.S. Department of the Treasury (“OFAC”) or the U.S. Department of State and including, without

limitation, the designation as a “specially designated national” or “blocked person”), the United Nations Security Council (“UNSC”), the European Union, Her Majesty’s Treasury (“HMT”) or other applicable sanctions authority (collectively, “Sanctions”), nor is the Company located, organized or resident in a country or territory that is the subject or target of comprehensive territorial Sanctions, currently, Crimea, Cuba, Iran, North Korea and Syria (each, a “Sanctioned Country”). For the past five years, the Company has not knowingly engaged in and are not now knowingly engaged in any dealings or transactions with any person that at the time of the dealing or transaction is or was the subject or the target of Sanctions or with any Sanctioned Country;

(xxxix) There are no persons with registration rights or other similar rights to have securities registered pursuant to the Registration Statement or otherwise registered by the Company under the Securities Act, which rights have not been waived in writing;

(xxxix) The Company is not and, after giving effect to the offering and sale of the Shares as contemplated herein and the application of the net proceeds therefrom as described in the Registration Statement, the Pricing Disclosure Package and the Prospectus, will not be an “investment company”, as such term is defined in the Investment Company Act of 1940, as amended (the “Investment Company Act”);

(xxxix) The Company has not distributed and, prior to the later to occur of the Closing Date (as defined in Section 4 hereof) and completion of distribution of the Shares, will not distribute any offering materials in connection with the offering and sale of the Shares, other than the Pricing Prospectus, the Prospectus and, subject to compliance with Section 6 hereof, any Issuer Free Writing Prospectus; and the Company has not taken and will not take, directly or indirectly, any action designed to cause or result in, or which constitutes or might reasonably be expected to constitute, the stabilization or manipulation of the price of any security of the Company to facilitate the sale of the Shares. The Company has not alone engaged in any Testing-the-Waters Communications and has not distributed any Written Testing-the-Waters Communications in connection with the offering and sale of the Shares. “Testing-the-Waters Communication” means any oral or written communication with potential investors undertaken in reliance on Section 5(d) of the Securities Act. “Written Testing-the-Waters Communication” means any Testing-the-Waters Communication that is a written communication within the meaning of Rule 405 under the Securities Act;

(xxxix) The statistical and market and industry-related data included in the Registration Statement, the Pricing Disclosure Package and the Prospectus are based on or derived from sources which the Company believes to be reliable and accurate or represent the Company’s good faith estimates that are made on the basis of data derived from such sources, and the Company has obtained the written consent to the use of such data from sources to the extent required;

(xxxix) Any certificate signed by any officer of the Company delivered to the Underwriters or to counsel for the Underwriters shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby;

(xxxix) Solely to the extent that the Sarbanes-Oxley Act of 2002, as amended, and the rules and regulations promulgated by the Commission and the Nasdaq Global

Market thereunder (the “Sarbanes-Oxley Act”) are or have been applicable to the Company, there is and has been no failure on the part of the Company or any of the Company’s directors or officers, in their capacities as such, to comply in all material respects with any applicable provisions of the Sarbanes-Oxley Act. The Company has taken all necessary actions to ensure that it is in compliance with all provisions of the Sarbanes-Oxley Act that are in effect and with which the Company is required to comply, and it is actively taking steps to ensure that it will be in compliance with other provisions of the Sarbanes-Oxley Act not currently in effect or which the Company is not required to comply with, that are reasonably expected to be applicable to the Company after the effectiveness of the Registration Statement;

(xxxvii) To the Company’s knowledge, there are no affiliations or associations between any member of FINRA and any of the Company’s officers, directors or 5% or greater securityholders;

(xxxviii) The Shares have been approved for listing, subject to notice of issuance, on the NASDAQ Global Market;

(xxxix) There are no relationships or related-party transactions involving the Company or any other person required to be described in the Registration Statement, the Pricing Disclosure Package or the Prospectus that have not been described as required;

(xl) The Company, and to the Company’s knowledge, its directors, officers, employees or agents, are in material compliance with each of the following statutes (in each case, to the extent applicable to the Company): the Federal Food, Drug and Cosmetic Act (21 U.S.C. § 301 et seq.), the federal Anti-kickback Statute (42 U.S.C. § 1320a-7b(b)), the civil False Claims Act (31 U.S.C. §§ 3729 et seq.), the criminal False Claims Law (42 U.S.C. § 1320a-7 b(a)), the Civil Monetary Penalty Laws (42 U.S.C. § 1320a-7a), the exclusion laws (42 U.S.C. § 1320a-7), Medicare (Title XVIII of the Social Security Act), Medicaid (Title XIX of the Social Security Act), the Health Insurance Portability and Accountability Act of 1996 (42 U.S.C. § 1320d et seq.), as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. §§ 17921 et seq.), the regulations promulgated pursuant to such laws, and any other similar federal, state or local laws (collectively, the “Health Care Laws”), and have not engaged in activities which are, as applicable, cause for civil penalties, or mandatory or permissive exclusion from Medicare, Medicaid, or any other state health care program or federal health care program. None of the Company or any of its directors, officers, employees or, to the Company’s knowledge, agents is debarred, suspended or excluded, or has been convicted of any crime or engaged in any conduct that would result in a debarment, suspension or exclusion, from any federal or state government health care program. To the Company’s knowledge, the Company has not received notice of any ongoing claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any U.S. or non-U.S. federal, state, local or other governmental or regulatory authority, governmental or regulatory agency or body, court, arbitrator or self-regulatory organization (each, a “Governmental Authority”) or third party alleging that any product operation or activity is in violation of any Health Care Laws or has any knowledge that any such Governmental Authority or third party is considering any such claim, litigation, arbitration, action, suit, investigation or proceeding. The Company is not a party to and has no ongoing reporting obligations pursuant to any corporate integrity agreement, deferred prosecution agreement, monitoring agreement, consent decree, settlement order, plan of correction or similar agreement imposed by any Governmental Authority;

(xli) The Company has filed, obtained, maintained or submitted all reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments as required by any Health Care Law and all such reports, documents, forms, notices, applications, records, claims, submissions and supplements or amendments were complete, correct and not misleading in all material respects on the date filed (or were corrected or supplemented by a subsequent submission, if so required by law). The Company has not, either voluntarily or involuntarily, initiated, conducted, or issued or caused to be initiated, conducted or issued, any recall, market withdrawal or replacement, safety alert, or other notice or action relating to any alleged product defect or violation and, to the Company's knowledge, no third party has initiated or conducted any such notice or action;

(xlii) The Company's information technology assets and equipment, computers, systems, networks, hardware, software, websites, applications, and databases (collectively, "IT Systems") are, to the Company's knowledge, adequate for, and operate and perform in all material respects as required in connection with the operation of the business of the Company and its subsidiaries as currently conducted, free and clear of all bugs, errors, defects, Trojan horses, time bombs, malware and other corruptants that would reasonably be expected to result in a material adverse effect. The Company and its subsidiaries have implemented and maintained commercially reasonable controls, policies, procedures, and safeguards to maintain and protect their material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and data (including all personal, personally identifiable, sensitive, confidential or regulated data ("Personal Data")) used in connection with their businesses, and there have been no breaches, violations, outages or unauthorized uses of or accesses to the same, except for those (i) that would not reasonably be expected to result in a material adverse effect and (ii) that have been remedied without material cost or liability or the duty to notify any other person, nor any incidents under internal review or investigations relating to the same. 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 Personal Data and to the protection of such IT Systems and Personal Data from unauthorized use, access, misappropriation or modification, except as would not, individually or in the aggregate, reasonably be expected to result in a material adverse effect.

(xliii) The research, studies and tests conducted by or on behalf of the Company have been and, if still pending, are being conducted in accordance with experimental protocols, procedures and controls pursuant to all Health Care Laws and Permits; the descriptions of the results of such research, studies and tests contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus are accurate and complete in all material respects and fairly present the data derived from such research, studies, and tests; except to the extent disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company is not aware of any research, studies or tests, the results of which the Company believes reasonably call into question the research, study or test results described or referred to in the Registration Statement, the Pricing Disclosure Package and the Prospectus when viewed in the context in which

such results are described; and, except to the extent disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not received any notices or correspondence from any Governmental Authority requiring the termination, suspension or material modification of any research, study or test conducted by or on behalf of the Company;

(xlv) The Company does not have any material lending or other relationship with any Underwriter or lending affiliate of any Underwriter and does not intend to use any of the proceeds from the sale of the Shares to repay any outstanding debt owed to any affiliate of the Underwriter; and

(xlv) Except as disclosed in the Registration Statement, the Pricing Disclosure Package and the Prospectus, the Company has not sold, issued or distributed any shares of Common Stock during the six-month period preceding the date hereof, including any sales pursuant to Rule 144A, Regulation D or Regulation S under the Securities Act, other than shares issued pursuant to employee benefit plans, qualified stock option plans or other employee compensation plans or pursuant to outstanding options, rights or warrants.

2. Subject to the terms and conditions herein set forth, (a) the Company agrees to sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, at a purchase price per share of \$21.62 (the "Purchase Price"), the number of Firm Shares (to be adjusted by you so as to eliminate fractional shares) determined by multiplying the aggregate number of Firm Shares to be sold by the Company hereunder by a fraction, the numerator of which is the aggregate number of Firm Shares to be purchased by such Underwriter as set forth opposite the name of such Underwriter in Schedule I hereto and the denominator of which is the aggregate number of Firm Shares to be purchased by all of the Underwriters from the Company hereunder and (b) in the event and to the extent that the Underwriters shall exercise the election to purchase Option Shares as provided below, the Company agrees to sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, at the Purchase Price, the number of Option Shares (to be adjusted by you so as to eliminate fractional shares) determined by multiplying the number of Option Shares as to which such election shall have been exercised by the fraction set forth in clause (a) above.

The Company hereby grants to the Underwriters the right to purchase at their election up to 825,000 Option Shares, at the Purchase Price, less an amount per share equal to any dividends or distributions declared by the Company and payable on the Underwritten Shares but not payable on the Option Shares. The Underwriters may exercise their option to acquire Option Shares in whole or in part from time to time only by written notice from the Representatives to the Company, given within a period of 30 calendar days after the date of this Agreement and setting forth the aggregate number of Option Shares to be purchased and the date on which such Option Shares are to be delivered, as determined by the Representatives but in no event earlier than the Closing Date or, unless the Representatives and the Company otherwise agree in writing, earlier than two or later than ten business days after the date of such notice.

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

4. The Company will deliver the Firm Shares to the Representatives through the facilities of the Depository Trust Company (“DTC”) for the accounts of the Underwriters, against payment of the purchase price therefor in Federal (same day) funds by wire transfer drawn to the order of the Company at the office of Latham & Watkins LLP, John Hancock Tower, 200 Clarendon Street, Boston, MA 02116, at 10:00 A.M., New York time, on July 29, 2019, or at such other time not later than seven full business days thereafter as the Representatives and the Company determine, such time being herein referred to as the “Closing Date”. For purposes of Rule 15c6-1 under the Exchange Act, the Closing Date (if later than the otherwise applicable settlement date) shall be the settlement date for payment of funds and delivery of securities for all the Firm Shares. Delivery of the Firm Shares will be made by credit to the accounts designated by the Representatives through DTC’s full fast transfer or DWAC programs.

Each time for the delivery of and payment for the Option Shares, being herein referred to as an “Option Closing Date”, which may be the Closing Date, shall be determined by the Representatives as provided above. The Company will deliver the Option Shares being purchased on each Option Closing Date to the Representatives through the facilities of DTC for the accounts of the Underwriters, against payment of the purchase price therefor in Federal (same day) funds by wire transfer drawn to the order of the Company at the above office of Latham & Watkins LLP, at 10:00 A.M., New York time on the applicable Option Closing Date. Delivery of the Option Shares will be made by credit to the accounts designated by the Representatives through DTC’s full fast transfer or DWAC programs.

5. The Company covenants and agrees with each of the Underwriters as follows:

(a) The Company, subject to Section 5(b), will comply with the requirements of Rule 430B under the Securities Act, and will notify the Representatives immediately, and confirm the notice in writing, (i) when any post-effective amendment to the Registration Statement shall become effective, or any supplement to the Prospectus or any amended prospectus shall have been filed, to furnish the Representatives with copies thereof, and to file promptly all material required to be filed by the Company with the Commission pursuant to Rule 433(d) under the Securities Act, (ii) of the receipt of any comments from the Commission, (iii) of any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to the Prospectus or for additional information, (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement, or of any order preventing or suspending the use of any Preliminary Prospectus, or of the suspension of the qualification of the Shares for offering or sale in any jurisdiction, or of the initiation or threatening of any proceedings for any of such purposes; and (v) if the Company ceases to be an Emerging Growth Company at any time prior to the later of (A) completion of the distribution of the Shares within the meaning of the Securities Act and (B) completion of the 90-day restricted period referred to in Section 5(j) hereof. The Company will promptly effect the filings necessary pursuant to Rule 424(b) under the Securities Act and will take such steps as it deems necessary to ascertain promptly whether the form of prospectus transmitted for filing under Rule 424(b) was received for filing by the Commission and, in the event that it was not, it will promptly file such prospectus. The Company will make every reasonable effort to prevent the issuance of any stop order and, if any stop order is issued, to obtain the lifting thereof at the earliest possible moment.

(b) The Company will give the Representatives notice of its intention to file or prepare any amendment to the Registration Statement (including any filing under Rule 462(b) under the Securities Act), or any amendment, supplement or revision to the Prospectus, or any Issuer Free Writing Prospectus, will furnish the Representatives with copies of any such documents a reasonable amount of time prior to such proposed filing or use, as the case may be, and will not file or use any such document to which the Representatives or counsel for the Underwriters shall reasonably object.

(c) The Company will use its best efforts to qualify the Shares for offering and sale under the securities laws of such jurisdictions as you may reasonably request and to comply with such laws so as to permit the continuance of sales and dealings therein in such jurisdictions for as long as may be necessary to complete the distribution of the Shares, provided that nothing in this Section 5(c) shall require the Company to qualify as a foreign corporation in any jurisdiction in which it is not already so qualified, or to file a general consent to service of process in any jurisdiction.

(d) The Company has furnished or will upon request deliver to the Representatives, without charge, three (3) signed copies of the Initial Registration Statement as originally filed, any Rule 462(b) Registration Statement and of each amendment to each (including exhibits filed therewith or incorporated by reference therein) and signed copies of all consents and certificates of experts, and will also, upon your request, deliver to the Representatives, without charge, a conformed copy of the Registration Statement as originally filed and of each amendment thereto (without exhibits) for each of the Underwriters. The copies of the Registration Statement and each amendment thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(e) The Company has delivered to each Underwriter, without charge, as many written and electronic copies of each Preliminary Prospectus as such Underwriter reasonably requested, and the Company hereby consents to the use of such copies for purposes permitted by the Securities Act. The Company will furnish to each Underwriter, without charge, prior to 5:00 P.M., New York time on the business day next succeeding the date of this Agreement and from time to time thereafter during the period when the Prospectus is required to be delivered in connection with sales of the Shares under the Securities Act or the Exchange Act or in lieu thereof, the notice referred to in Rule 173(a) under the Securities Act, such number of written and electronic copies of the Prospectus (as amended or supplemented) as such Underwriter may reasonably request. The Prospectus and any amendments or supplements thereto furnished to the Underwriters will be identical to the electronically transmitted copies thereof filed with the Commission pursuant to EDGAR, except to the extent permitted by Regulation S-T.

(f) The Company will comply with the Securities Act, the Rules and Regulations and the Exchange Act so as to permit the completion of the distribution of the Shares as contemplated in this Agreement and in the Prospectus. If at any time when, in the opinion of counsel for the Underwriters, a prospectus is required to be delivered in connection with sales of the Shares under the Securities Act or the Exchange Act (or in lieu thereof, the notice referred to in Rule 173(a) under the Securities Act), any event shall occur or condition shall exist as a result of which it is necessary, in the opinion of counsel for the Underwriters or for the Company, to

amend the Registration Statement or amend or supplement the Prospectus or to file under the Exchange Act any document which would be deemed to be incorporated by reference in the Prospectus in order that the Prospectus will not include any untrue statements of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in the light of the circumstances existing at the time it (or in lieu thereof, the notice referred to in Rule 173(a) under the Securities Act) is delivered to a purchaser, or if it shall be necessary, in the opinion of either such counsel, at any such time to amend the Registration Statement or amend or supplement the Prospectus in order to comply with the requirements of the Securities Act, the Rules and Regulations or the Exchange Act, the Company will promptly prepare and file with the Commission, subject to Section 5(b), such amendment or supplement as may be necessary to correct such statement or omission or to make the Registration Statement or the Prospectus or any document which would be deemed to be incorporated by reference in the Prospectus in order to comply with the Securities Act or the Exchange Act, and the Company will furnish to the Underwriters such number of written and electronic copies of such amendment or supplement as the Underwriters may reasonably request. The Company will provide the Representatives with notice of the occurrence of any event during the period specified above that may give rise to the need to amend or supplement the Registration Statement or the Prospectus as provided in the preceding sentence promptly after the occurrence of such event

(g) The Company will make generally available (within the meaning of Section 11(a) of the Securities Act) to its security holders and to the Representatives as soon as practicable, but not later than 45 days after the end of its fiscal quarter in which the first anniversary date of the effective date of the Registration Statement occurs, an earnings statement (in form complying with the provisions of Rule 158 under the Securities Act) covering a period of at least twelve consecutive months beginning after the effective date of the Registration Statement.

(h) The Company will use the net proceeds received by it from the sale of the Shares in the manner specified in the Prospectus under the heading "Use of Proceeds".

(i) The Company will use its best efforts to effect and maintain the listing of the Common Stock (including the Shares) on the NASDAQ Global Market.

(j) During a period of 90 days from the date of the Prospectus, the Company will not, without the prior written consent of each of the Representatives, (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock or (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of Common Stock, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise, other than (1) the Shares to be sold hereunder, (2) the issuance of options to acquire shares of Common Stock granted pursuant to the Company's benefit plans existing on the date hereof that are referred to in the Pricing Prospectus, as such plans may be amended, (3) the issuance of shares of Common Stock upon the exercise of any such options or (4) the issuance of shares of Common Stock or securities convertible into or exercisable or exchangeable for shares of Common Stock in an aggregate amount not to exceed 1% of the Company's Common Stock outstanding immediately following the issuance of the Shares to be

sold hereunder in connection with mergers, acquisitions or strategic transactions with an unaffiliated third party (including, without limitation, joint ventures, manufacturing, marketing or distribution arrangements, collaboration agreements and intellectual property license agreements), *provided* that, in the case of any issuance pursuant to this clause (4), the Company shall cause any recipient of such securities to execute and deliver to the Representatives on or prior to the issuance of such securities, a lock-up agreement restricting the transfer of such securities for a period of 45 days after the date of this prospectus.

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

(l) The Company will file with the Commission such information on Form 10-Q or Form 10-K as may be required pursuant to Rule 463 under the Securities Act.

(m) During a period of five years from the effective date of the Registration Statement, the Company will furnish to you copies of all reports or other communications (financial or other) furnished to stockholders generally, and to deliver to you as soon as they are available, copies of any reports and financial statements furnished to or filed with the Commission or any national securities exchange on which any class of securities of the Company is listed; provided that the Company will be deemed to have furnished such reports and financial statements to the extent they are filed on EDGAR.

(n) If the Company elects to rely upon Rule 462(b) under the Securities Act, the Company will file a Rule 462(b) Registration Statement with the Commission in compliance with Rule 462(b) by 10:00 P.M., Washington, D.C. time, on the date of this Agreement, and at the time of filing either to pay to the Commission the filing fee for the Rule 462(b) Registration Statement or to give irrevocable instructions for the payment of such fee pursuant to Rule 111(b) under the Securities Act.

(o) If so requested by the Representatives, the Company shall cause to be prepared and delivered, at its expense, within one business day from the effective date of this Agreement, to the Representatives an “electronic Prospectus” to be used by the Underwriters in connection with the offering and sale of the Shares. As used herein, the term “electronic Prospectus” means a form of the most recent Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus, and any amendment or supplement thereto, that meets each of the following conditions: (i) it shall be encoded in an electronic format, satisfactory to the Representatives, that may be transmitted electronically by the Representatives and the other Underwriters to offerees and purchasers of the Shares, (ii) it shall disclose the same information as such paper Preliminary Prospectus, Issuer Free Writing Prospectus or Prospectus, as the case may be; and (iii) it shall be in or convertible into a paper format or an electronic format, satisfactory to the Representatives, that will allow investors to store and have continuously ready access to such Preliminary Prospectus, Issuer Free Writing Prospectus or Prospectus at any future time, without charge to investors (other than any fee charged for subscription to the Internet generally).

The Company hereby confirms that, if so requested by the Representatives, it has included or will include in the Prospectus filed with the Commission an undertaking that, upon receipt of a request by an investor or his or her representative, the Company shall transmit or cause to be transmitted promptly, without charge, a paper copy of such paper Preliminary Prospectus, Issuer Free Writing Prospectus or Prospectus to such investor or representative.

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

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

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

(c) The Company agrees that if at any time following issuance of an Issuer Free Writing Prospectus any event occurred or occurs as a result of which such Issuer Free Writing Prospectus would conflict with the information in the Registration Statement, the Pricing Disclosure Package or the Prospectus or, when considered together with the information in the Disclosure Package and other Issuer Free Writing Prospectuses, would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in light of the circumstances then prevailing, not misleading, the Company will give prompt notice thereof to the Representatives and, if requested by the Representatives, will prepare and furnish without charge to each Underwriter an Issuer Free Writing Prospectus or other document which will correct such conflict, statement or omission.

7. The Company covenants and agrees with the several Underwriters that, whether or not the transactions contemplated by this Agreement are consummated, the Company will pay or cause to be paid all expenses incident to the performance of its obligations under this Agreement, including (i) the fees, disbursements and expenses of the Company’s counsel, accountants and other advisors; (ii) filing fees and all other expenses in connection with the preparation, printing and filing of the Registration Statement, each Preliminary Prospectus, any Issuer Free Writing Prospectus and the Prospectus and amendments and supplements thereto and the mailing and delivering of copies thereof to the Underwriters and dealers; (iii) the cost of printing or producing this Agreement, closing documents (including any compilations thereof) and such other documents as may be required in connection with the offering, purchase, sale and delivery of the Shares; (iv) all expenses in connection with the qualification of the Shares for offering and sale under state securities laws as provided in Section 5(c), including filing fees and the reasonable fees and disbursements of counsel for the Underwriters in connection with such qualification; (v) all fees

and expenses in connection with listing the Common Stock (including the Shares) on the NASDAQ Global Market; (vi) the filing fees incident to, and the reasonable fees and disbursements of counsel for the Underwriters in connection with, securing any required review by FINRA of the terms of the sale of the Shares; (vii) all other reasonable costs and out-of-pocket expenses of the Underwriters (including reasonable fees and disbursements of counsel) incident to the performance of their obligations hereunder not otherwise specifically provided for herein; (viii) all fees and expenses in connection with the issuance and delivery of the Shares to the Underwriters, including any stock or other transfer taxes and any stamp or other duties payable upon the sale, issuance or delivery of the Shares to the Underwriters; (ix) the cost and charges of any transfer agent or registrar; (x) the transportation and other expenses incurred by the Company in connection with presentations to prospective purchasers of Shares (provided, however, that the Underwriters shall pay 50% of the cost of any aircraft chartered in connection with the road show); and (xi) all other costs and expenses incident to the performance of its obligations hereunder which are not otherwise specifically provided for in this Section; *provided, however*, such costs and expenses provided for in clauses (vi) (for reasonable fees and disbursements of counsel for the Underwriters) and (vii) shall not exceed \$50,000 in the aggregate.

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

(a) The Prospectus shall have been filed with the Commission pursuant to Rule 424(b) under the Securities Act within the applicable time period prescribed for such filing by the Rules and Regulations and in accordance with Section 5(a); all material required to be filed by the Company pursuant to Rule 433(d) under the Securities Act shall have been filed with the Commission within the applicable time period prescribed for such filing by Rule 433 under the Securities Act; if the Company has elected to rely upon Rule 462(b) under the Securities Act, the Rule 462(b) Registration Statement shall have become effective by 10:00 P.M., Washington, D.C. time, on the date of this Agreement; no stop order or proceeding pursuant Section 8A of the Securities Act suspending the effectiveness of the Registration Statement or any part thereof or the Prospectus or any part thereof or any Issuer Free Writing Prospectus shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission or any state securities commission; and all requests for additional information on the part of the Commission shall have been complied with to your reasonable satisfaction.

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

(c) Subsequent to the execution and delivery of this Agreement and prior to the Closing Date or the Option Closing Date, as the case may be, there shall not have occurred any downgrading, nor shall any notice have been given of (i) any downgrading, (ii) any intended or potential downgrading or (iii) any review or possible change that does not indicate an improvement, in the rating accorded any securities of or guaranteed by the Company by any "nationally recognized statistical rating organization", as such term is defined for purposes of Rule 436(g)(2) under the Securities Act.

(d) (i) The Company shall not have sustained since the date of the latest audited financial statements included or incorporated by reference in the Pricing Disclosure Package any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Pricing Disclosure Package, and (ii) since the respective dates as of which information is given in the Registration Statement, the Pricing Disclosure Package and the Prospectus, (1) there shall not have been any change in the capital stock or long-term debt of the Company or (2) there shall not have been any material adverse change, or any development involving a prospective material adverse change, in or affecting the general affairs, business, prospects, management, financial position, shareholders' equity or results of operations of the Company, the effect of which, in any such case described in clause (i) or (ii), is in the judgment of the Representatives so material and adverse as to make it impracticable or inadvisable to proceed with the public offering or the delivery of the Shares being delivered at such Closing Date or Option Closing Date, as the case may be, on the terms and in the manner contemplated in the Pricing Disclosure Package and the Prospectus.

(e) The Representatives shall have received on and as of the Closing Date or the Option Closing Date, as the case may be, a certificate of two executive officers of the Company, at least one of whom has specific knowledge about the Company's financial matters, satisfactory to the Representatives, to the effect (1) set forth in Sections 8(b) (with respect to the respective representations, warranties, agreements and conditions of the Company) and 8(c), (2) that none of the situations set forth in clause (i) or (ii) of Section 8(d) shall have occurred and (3) that no stop order suspending the effectiveness of the Registration Statement has been issued and, to the knowledge of the Company, no proceedings pursuant to Section 8A under the Securities Act have been instituted or are pending or contemplated by the Commission.

(f) On the Closing Date or Option Closing Date, as the case may be, Cooley LLP, counsel for the Company, shall have furnished to the Representatives their favorable written opinion and negative assurance letter, dated the Closing Date or the Option Closing Date, as the case may be, each in form and substance satisfactory to counsel for the Underwriters.

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

(h) On the Closing Date or Option Closing Date, as the case may be, Anilionis Intellectual Property Law, LLC, counsel for the Company solely in connection with patent prosecution matters, shall have furnished to the Representatives their favorable written opinion, dated the Closing Date or the Option Closing Date, as the case may be, in form and substance satisfactory to counsel for the Underwriters.

(i) On the effective date of the Registration Statement, the date of the Pricing Prospectus and, if applicable, the effective date of the most recently filed post-effective

amendment to the Registration Statement, Ernst & Young LLP shall have furnished to the Representatives a letter, dated the date of delivery thereof, in form and substance satisfactory to the Representatives, containing statements and information of the type customarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in the Registration Statement, the Pricing Disclosure Package and the Prospectus.

(j) On the Closing Date or Option Closing Date, as the case may be, the Representatives shall have received from Ernst & Young LLP a letter, dated the Closing Date or such Option Closing Date, as the case may be, to the effect that they reaffirm the statements made in the letter or letters furnished pursuant to Section 8(i), except that the specified date referred to shall be a date not more than three business days prior to the Closing Date or such Option Closing Date, as the case may be.

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

(l) The Shares to be delivered on the Closing Date or Option Closing Date, as the case may be, shall have been approved for listing on the NASDAQ Global Market, subject to official notice of issuance.

(m) [Reserved].

(n) The Representatives shall have received "lock-up" agreements, each substantially in the form of Exhibit A hereto, from each of the officers and directors of the Company, and such agreements shall be in full force and effect on the Closing Date or Option Closing Date, as the case may be, and the Company has provided the Representatives with copies of all written plans meeting the requirements of Rule 10b5-1 under the Exchange Act relating to the sale of securities of the Company by each of the officers and directors in effect on the Closing Date or Option Closing Date.

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

(p) On or after the Applicable Time there shall not have occurred any of the following: (i) a suspension or material limitation in trading in securities generally on the NASDAQ Global Market; (ii) a suspension or material limitation in trading in the Company's securities on the NASDAQ Global Market; (iii) a general moratorium on commercial banking activities declared by any of Federal, Maryland or New York State authorities or a material disruption in commercial banking or securities settlement or clearance services in the United States; (iv) the outbreak or escalation of hostilities involving the United States or the declaration by the United

States of a national emergency or war or (v) the occurrence of any other calamity or crisis or any change in financial, political or economic conditions in the United States or elsewhere, if the effect of any such event specified in clause (iv) or (v) in the judgment of the Representatives makes it impracticable or inadvisable to proceed with the public offering or the delivery of the Shares being delivered at such Closing Date or Option Closing Date, as the case may be, on the terms and in the manner contemplated in the Prospectus;

If any condition specified in this Section 8 shall not have been fulfilled when and as required to be fulfilled, this Agreement may be terminated, subject to the provisions of Section 12, by the Representatives by notice to the Company at any time at or prior to the Closing Date or Option Closing Date, as the case may be, and such termination shall be without liability of any party to any other party, except as provided in Section 12.

9. (a) The Company agrees to indemnify and hold harmless each Underwriter, its affiliates (as such term is defined in Rule 501(b) under the 1933 Act (each, an "Affiliate")), selling agents, directors and officers and each person, if any, who controls any Underwriter within the meaning of Section 15 of the Securities Act or Section 20(a) of the Exchange Act against any and all losses, liabilities, claims, damages and expenses whatsoever as incurred (including without limitation, reasonable attorneys' fees and any and all reasonable expenses whatsoever incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, and any and all amounts paid in settlement of any claim or litigation), joint or several, to which they or any of them may become subject under the Securities Act, the Exchange Act or otherwise, insofar as such losses, liabilities, claims, damages or expenses (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement (including the Rule 430B Information and any other information deemed to be a part of the Registration Statement at the time of effectiveness and at any subsequent time pursuant to the Rules and Regulations, if applicable), or any post-effective amendment thereof, any Preliminary Prospectus, the Pricing Disclosure Package or the Prospectus, or in any supplement thereto or amendment thereof, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Securities Act, or any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the offering of the Shares, including any "road show" (as defined in Rule 433 under the Securities Act) not constituting an Issuer Free Writing Prospectus and any Written Testing-the-Waters Communication, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading; provided, however, that the Company will not be liable in any such case to the extent that any such loss, liability, claim, damage or expense arises out of or is based upon any such untrue statement or alleged untrue statement or omission or alleged omission made in the Initial Registration Statement, as originally filed or any amendment thereof, the Registration Statement, or any post-effective amendment thereof, any Preliminary Prospectus, the Pricing Prospectus or the Prospectus, or in any supplement thereto or amendment thereof, any Issuer Free Writing Prospectus, in reliance upon and in strict conformity with written information furnished to the Company by or on behalf of any Underwriter through the Representatives expressly for use therein, it being understood and agreed that the only such information furnished by any Underwriter is the information described as such in Section 9(b) below.

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

(c) Promptly after receipt by an indemnified party under Section 9(a) or 9(b) of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such Section, notify each party against whom indemnification is to be sought in writing of the commencement thereof (but the failure so to notify an indemnifying party shall not relieve it from any liability which it may have under this Section 9). In case any such action is brought against any indemnified party, and it notifies an indemnifying party of the commencement thereof, the indemnifying party will be entitled to participate therein, and jointly with any other indemnifying party similarly notified, to the extent it may elect by written notice delivered to the indemnified party promptly after receiving the aforesaid notice from such indemnified party, to assume the defense thereof with counsel reasonably satisfactory to such indemnified party (who shall not, except with the consent of the indemnified party, be counsel to the indemnified party). Notwithstanding the foregoing, the indemnified party or parties shall have the right to employ its or their own counsel in any such case, but the fees and expenses of such counsel shall be at the expense of such indemnified party or parties unless (i) the employment of such counsel shall have been authorized in writing by one of the indemnifying parties in connection with the defense of such action, (ii) the indemnifying parties shall not have employed counsel reasonably satisfactory to the indemnified party to have charge of the defense of such action within a reasonable time after notice of commencement of the action, (iii) such indemnified party or parties shall have reasonably concluded that there may be defenses available to it or them which are different from or additional to those available to one or all of the indemnifying parties (in which case the indemnifying parties shall not have the right to direct the defense of such action on behalf of the indemnified party or parties), in any of which

events such fees and expenses shall be borne by the indemnifying parties, or (iv) the named parties in any such proceeding (including any impleaded parties) include both the indemnifying party and the indemnified party and representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them. In no event shall the indemnifying parties be liable for fees and expenses of more than one counsel (in addition to any local counsel) separate from their own counsel for all indemnified parties in connection with any one action or separate but similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances, which counsel, in the event of indemnified parties under Section 9(a), shall be selected by the Representatives. No indemnifying party shall, without the written consent of the indemnified party, effect the settlement or compromise of, or consent to the entry of any judgment with respect to, any pending or threatened action or claim in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified party is an actual or potential party to such action or claim) unless such settlement, compromise or judgment (i) includes an unconditional release of the indemnified party from all liability arising out of such action or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any indemnified party.

(d) If the indemnification provided for in this Section 9 is unavailable to or insufficient to hold harmless an indemnified party under Section 9(a) or 9(b) in respect of any losses, liabilities, claims, damages or expenses (or actions in respect thereof) referred to therein, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, liabilities, claims, damages or expenses (or actions in respect thereof) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the offering of the Shares. If, however, the allocation provided by the immediately preceding sentence is not permitted by applicable law, then each indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on the one hand and the Underwriters on the other in connection with the statements or omissions which resulted in such losses, liabilities, claims, damages or expenses (or actions in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other from the offering of the Shares shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriters, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the Underwriters on the other and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section 9(d) were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this Section 9(d). The amount paid or payable by an indemnified party as a result of the losses, liabilities, claims, damages or expenses (or actions in respect thereof) referred to above in this Section 9(d) shall be

deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 9(d), no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Shares underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages which such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission.

No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations in this Section 9(d) to contribute are several in proportion to their respective underwriting obligations and not joint.

(e) The obligations of the parties to this Agreements contained in this Section 9 are not exclusive and shall not limit any rights or remedies which may otherwise be available to any indemnified party at law or in equity.

10. If any Underwriter or Underwriters default in its or their obligations to purchase Shares hereunder on the Closing Date or any Option Closing Date and the aggregate number of Shares that such defaulting Underwriter or Underwriters agreed but failed to purchase does not exceed 10% of the total number of Shares that the Underwriters are obligated to purchase on such Closing Date or Option Closing Date, as the case may be, the Representatives may make arrangements satisfactory to the Company for the purchase of such Shares by other persons, including any of the Underwriters, but if no such arrangements are made by such Closing Date or Option Closing Date, as the case may be, the non-defaulting Underwriters shall be obligated severally, in proportion to their respective commitments hereunder, to purchase the Shares that such defaulting Underwriters agreed but failed to purchase on such Closing Date or Option Closing Date, as the case may be. If any Underwriter or Underwriters so default and the aggregate number of Shares with respect to which such default or defaults occur exceeds 10% of the total number of Shares that the Underwriters are obligated to purchase on such Closing Date or Option Closing Date, as the case may be, and arrangements satisfactory to the Representatives and the Company for the purchase of such Shares by other persons are not made within 36 hours after such default, this Agreement will terminate, subject to the provisions of Section 12, without liability on the part of any non-defaulting Underwriter or the Company, except as provided in Section 12. Nothing herein will relieve a defaulting Underwriter from liability for its default.

In the event of any such default which does not result in a termination of this Agreement, either the Representatives or the Company shall have the right to postpone the Closing Date or the relevant Option Closing Date, as the case may be, for a period not exceeding seven days in order to effect any required changes in the Registration Statement or Prospectus or in any other documents or arrangements. As used in this Agreement, the term "Underwriter" includes any person substituted for an Underwriter under this Section 10.

11. Notwithstanding anything herein contained, this Agreement (or the obligations of the several Underwriters with respect to any Option Shares which have yet to be purchased) may be terminated, subject to the provisions of Section 12, in the absolute discretion of the Representatives, by notice given to the Company, if after the execution and delivery of this

Agreement and prior to the Closing Date or the Option Closing Date, as the case may be, (a) trading generally on the NYSE MKT, the New York Stock Exchange, the NASDAQ Global Select Market or the NASDAQ Global Market shall have been suspended or materially limited, or minimum or maximum prices for trading have been fixed, or maximum ranges for prices have been required, by any of said exchanges or by such system or by order of the Commission, FINRA or any other governmental or regulatory authority, (b) trading of any securities of or guaranteed by the Company shall have been suspended on any exchange or in any over-the-counter market, (c) a general moratorium on commercial banking activities in New York or Maryland shall have been declared by Federal, New York State or Maryland State authorities or a new restriction materially adversely affecting the distribution of the Firm Shares or the Option Shares, as the case may be, shall have become effective, or (d) there has occurred any material adverse change in the financial markets in the United States or the international financial markets, any outbreak of hostilities or escalation thereof or other calamity or crisis or any change or development involving a prospective change in national or international political, financial or economic conditions, in each case the effect of which is such as to make it, in the judgment of the Representatives, impracticable or inadvisable to market the Shares to be delivered on the Closing Date or Option Closing Date, as the case may be, or to enforce contracts for the sale of the Shares.

If this Agreement is terminated pursuant to this Section 11, such termination will be without liability of any party to any other party except as provided in Section 12 hereof.

12. The respective indemnities, agreements, representations, warranties and other statements of the Company or its officers and of the several Underwriters set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation, or statement as to the results thereof, made by or on behalf of any Underwriter or its Affiliates or selling agents, the Company or any of their respective representatives, officers or directors or any controlling person, and will survive delivery of and payment for the Shares. If this Agreement is terminated pursuant to Section 8, 10 or 11 or if for any reason the purchase of any of the Shares by the Underwriters is not consummated, the Company shall remain responsible for the expenses to be paid or reimbursed by it pursuant to Section 7, the respective obligations of the Company and the Underwriters pursuant to Section 9 and the provisions of Sections 12, 13 and 16 shall remain in effect and, if any Shares have been purchased hereunder the representations and warranties in Section 1 and all obligations under Section 5 and Section 6 shall also remain in effect. If this Agreement shall be terminated by the Underwriters, or any of them, under Section 8 or otherwise because of any failure or refusal on the part of the Company to comply with the terms or to fulfill any of the conditions of this Agreement, or if for any reason the Company shall be unable to perform its obligations under this Agreement or any condition of the Underwriters' obligations cannot be fulfilled, the Company agrees to reimburse the Underwriters or such Underwriters as have so terminated this Agreement with respect to themselves, severally, for all out-of-pocket expenses (including the fees and expenses of its counsel) reasonably incurred by the Underwriter in connection with this Agreement or the offering contemplated hereunder.

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

14. In the event that any Underwriter that is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Underwriter 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. In the event that any Underwriter that is a Covered Entity or a BHC Act Affiliate of such Underwriter becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Underwriter 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 14:

“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.

“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.

15. All notices and other communications hereunder shall be in writing and shall be deemed to have been duly given upon receipt thereof by the recipient if mailed or transmitted by any standard form of telecommunication. Notices to the Underwriters shall be given to the Representatives, c/o J.P. Morgan Securities LLC, 383 Madison Avenue, New York, New York, 10179 (fax: (212) 622-8353); Attention: Equity Syndicate Desk; and Jefferies LLC, 520 Madison Avenue, New York, New York 10022 (fax no. (646) 619-4437), Attention: General Counsel. Notices to the Company shall be given to it at Cara Therapeutics, Inc., 107 Elm Street, 9th Floor, Stamford, Connecticut 06902 (fax no.: (203) 567-1510); Attention: Chief Executive Officer.

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

17. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO SUCH STATE'S PRINCIPLES OF CONFLICTS OF LAWS.

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

19. The Company acknowledges and agrees that (i) the purchase and sale of the Shares pursuant to this Agreement, including the determination of the public offering price of the Shares and any related discounts and commissions, is an arm's-length commercial transaction between the Company on the one hand, and the several Underwriters, on the other, (ii) in connection therewith and with the process leading to such transaction each Underwriter is acting solely as a principal and not the agent or fiduciary of the Company or its respective stockholders, creditors, employees or any other party, (iii) no Underwriter has assumed an advisory or fiduciary responsibility in favor of the Company with respect to the offering contemplated hereby or the process leading thereto (irrespective of whether such Underwriter has advised or is currently advising the Company on other matters) or any other obligation to the Company except the obligations expressly set forth in this Agreement, and (iv) the Company has consulted its own legal and financial advisors to the extent it deemed appropriate. The Company agrees that it will not claim that the Underwriters, or any of them, has rendered advisory services of any nature or respect, or owes a fiduciary or similar duty to the Company, in connection with such transaction or the process leading thereto.

20. The Company acknowledges that the Underwriters' research analysts and research departments are required to be independent from their respective investment banking divisions and are subject to certain regulations and internal policies, and that such Underwriters' research analysts may hold views and make statements or investment recommendations and/or publish research reports with respect to the Company and/or the offering that differ from the views of their respective investment banking divisions. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against the Underwriters with respect to any conflict of interest that may arise from the fact that the views expressed by their independent research analysts and research departments may be different from or inconsistent with the views or advice communicated to the Company by such Underwriters' investment banking divisions. The Company acknowledges that each of the Underwriters is a full service securities firm and as such from time to time, subject to applicable securities laws, may effect transaction for its own account or the account of its customers and hold long or short positions in debt or equity securities of the companies that may be the subject of the transactions contemplated by this Agreement.

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

22. The Company and each of the Underwriters hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby.

[Signature page follows]

If the foregoing is in accordance with your understanding of our agreement, please sign and return to the Company a counterpart hereof, whereupon this instrument will become a binding agreement among the Company and the Underwriters.

Very truly yours,

CARA THERAPEUTICS, INC.

By: /s/ Derek Chalmers

Name: Derek Chalmers

Title: President and Chief Executive Officer

[Signature Page to Underwriting Agreement]

Accepted as of the date hereof:

J.P. MORGAN SECURITIES LLC

By: /s/ Raphael Taubenfeld

Name: Raphael Taubenfeld

Title: Vice President

JEFFERIES LLC

By: /s/ Michael A. Bauer

Name: Michael A. Bauer

Title: Managing Director

For themselves and as Representatives of the other
Underwriters named in Schedule I hereto

[Signature Page to Underwriting Agreement]

SCHEDULE I

<u>Underwriter</u>	<u>Number of Firm Shares to be Purchased</u>
J.P. Morgan Securities LLC	2,475,000
Jefferies LLC	1,650,000
Piper Jaffray & Co	550,000
Stifel, Nicolaus & Company, Incorporated	550,000
Needham & Company, LLC	137,500
Janney Montgomery Scott LLC	137,500
Total	5,500,000

SCHEDULE II

Orally Conveyed Pricing Information

Pricing Information:

Number of Firm Shares to be Issued by the Company: 5,500,000

Offering Price: \$23.00 per share

FORM OF LOCK-UP AGREEMENT

CARA THERAPEUTICS, INC.
4 Stamford Plaza
107 Elm Street, 9th Floor
Stamford, CT 06902

J.P. MORGAN SECURITIES LLC
JEFFERIES LLC

c/o J.P. Morgan Securities LLC
383 Madison Avenue
New York, New York 10179

and

c/o Jefferies LLC
520 Madison Avenue
New York, New York 10022

Ladies and Gentlemen:

The undersigned refers to the proposed Underwriting Agreement (the “Underwriting Agreement”) among Cara Therapeutics, Inc., a Delaware corporation (the “Company”), and the several underwriters named therein (the “Underwriters”), for whom J.P. Morgan Securities LLC (“JPM”) and Jefferies LLC (“Jefferies,” and together with JPM, the “Representatives”) are acting as representatives. As an inducement to the Representatives to execute the Underwriting Agreement on behalf of the Underwriters in connection with the proposed public offering (the “Proposed Offering”) of shares of the Company’s common stock, par value \$0.001 per share (“Common Stock”), pursuant to a Registration Statement on Form S-3, as amended or supplemented, the undersigned hereby agrees that from the date hereof and until 90 days after the date of the final prospectus supplement used to sell the Common Stock (the “Public Offering Date”) pursuant to the Underwriting Agreement (such period being referred to herein as the “Lock-Up Period”), the undersigned will not (and will cause any spouse, domestic partner or immediate family member of the spouse, domestic partner or the undersigned living in the undersigned’s household, any partnership, corporation, limited liability company or other entity within the undersigned’s control, and any trustee of any trust that holds Common Stock or other securities of the Company for the benefit of the undersigned or such spouse, domestic partner or immediate family member not to) offer, sell, contract to sell (including any short sale), pledge, hypothecate, establish an open “put equivalent position” within the meaning of Rule 16a-1(h) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), grant any option, right or warrant for the sale of, purchase any option or contract to sell, sell any option or contract to purchase, or otherwise encumber,

dispose of or transfer, or grant any rights with respect to, directly or indirectly, any shares of Common Stock or securities convertible into or exchangeable or exercisable for any shares of Common Stock, enter into a transaction which would have the same effect, or enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of the Common Stock, whether any such aforementioned transaction is to be settled by delivery of the Common Stock or such other securities, in cash or otherwise, or publicly disclose the intention to make any such offer, sale, pledge or disposition, or to enter into any such transaction, swap, hedge or other arrangement, without, in each case, the prior written consent of each of the Representatives, which consent may be withheld in the Representatives' sole discretion. For purposes of this Agreement, "immediate family member" shall mean any relation by blood, marriage or adoption, not more remote than first cousin.

Notwithstanding the foregoing, (a) the undersigned may transfer securities of the Company (i) as a *bona fide* gift or gifts, *provided* that the donee or donees thereof agree to be bound in writing by the restrictions set forth herein (and, to the extent any interest in the Company's securities is retained by the undersigned, or such spouse domestic partner or family member, such securities shall remain subject to the restrictions contained in this Agreement), (ii) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned, *provided* that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, (iii) by will or intestate succession upon the death of the undersigned, *provided* that the transferee agrees to be bound in writing by the restrictions set forth herein, (iv) if the undersigned is a corporation, limited liability company, partnership, trust, or other business entity, such entity may transfer Common Stock as part of a distribution, transfer or distribution by the undersigned to its stockholders, members, partners, beneficiaries or other equity holders, *provided* that in any transfer contemplated in this clause (a)(iv), it shall be a condition to the transfer that the transferee execute an agreement stating that the transferee is receiving and holding such securities subject to the provisions of this Agreement and there shall be no further transfer of such securities except in accordance with this Agreement, and provided further that any such transfer or distribution shall not involve a disposition for value, (v) to the Company in connection with the "cashless" exercise of options to purchase shares of Common Stock pursuant to employee benefit plans existing as of the date hereof and disclosed in the final prospectus supplement relating to the Proposed Offering, *provided* that the restrictions on transfer set forth in this Agreement shall apply to shares of Common Stock issued upon such exercise or conversion, (vi) to the Company in connection with the "net exercise" of warrants held by the undersigned, *provided* that the restrictions on transfer set forth in this Agreement shall apply to shares of Common Stock issued upon such exercise or conversion, (vii) to the Company to satisfy tax withholding obligations in connection with the vesting or exercise of equity incentive awards under the Company's employee benefits plans disclosed in the final prospectus supplement relating to the Proposed Offering, (viii) to the Company in connection with the repurchase of shares of Common Stock issued pursuant to employee benefit plans disclosed in the final prospectus supplement relating to the Proposed Offering, (ix) pursuant to a *bona fide* third party tender offer, merger, consolidation or other similar transaction made to all holders of the Company's capital stock involving a change of control of the Company, *provided* that in the event that the tender offer, merger, consolidation or other such transaction is not completed, the undersigned's Common Stock shall remain subject to the restrictions contained in this Agreement, or (x) pursuant to operation of law, including pursuant to

a domestic order or negotiated divorce settlement, *provided* that it shall be a condition to the transfer that the transferee execute an agreement stating that the transferee is receiving and holding such shares securities subject to the provisions of this Agreement and there shall be no further transfer of such securities except in accordance with this Agreement, (b) the undersigned may exercise any (i) option to purchase Common Stock of the Company granted under any equity incentive plan or stock purchase plan of the Company existing as of the date hereof and disclosed in the final prospectus supplement relating to the Proposed Offering or (ii) warrant to purchase securities of the Company disclosed in the final prospectus supplement relating to the Proposed Offering; *provided* in either case, that the underlying shares received upon exercise of such option or warrant shall continue to be subject to the restrictions on transfer set forth in this Agreement, and (c) the undersigned may (i) enter into a written plan meeting the requirements of Rule 10b5-1 under the Exchange Act (a "10b5-1 Trading Plan") relating to the sale of securities of the Company, *provided* that the securities subject to such plan may not be sold until after the expiration of the Lock-Up Period and that the entry into such plan is not publicly disclosed, including in any filing under the Exchange Act, during the Lock-Up Period or (ii) effect transactions pursuant to a 10b5-1 Trading Plan in existence on the date hereof, *provided* that such 10b5-1 Trading Plan shall not be amended during the Lock-Up Period and that if any such transaction is reported in any public report or filing under Section 16(a) of the Exchange Act during the Lock-up Period, such report or filing shall include a note that the transaction was pursuant to such a trading plan. In addition, with respect to clauses (a)(i) through (iv) above, it shall be a condition to such transfer that no filing under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of shares of Common Stock shall be required or shall be voluntarily made during the Lock-Up Period.

In addition, the undersigned agrees that, during the period commencing on the date hereof and ending 90 days after the Public Offering Date, without the prior written consent of each of the Representatives (which consent may be withheld in their sole discretion): (a) the undersigned will not request, make any demand for or exercise any right with respect to, the registration of any Common Stock or any security convertible into or exercisable or exchangeable for Common Stock and (b) the undersigned waives any and all notice requirements and rights with respect to the registration of any such security pursuant to any agreement, understanding or otherwise to which the undersigned is a party.

In furtherance of the foregoing, the Company and its transfer agent and registrar are hereby authorized to (a) decline to make any transfer of shares of Common Stock if such transfer would constitute a violation or breach of this Agreement and (b) place legends and stop transfer instructions on any such shares of Common Stock owned or beneficially owned by the undersigned.

[Signature page follows]

This Agreement is irrevocable and shall be binding on the undersigned and the successors, heirs, personal representatives and assigns of the undersigned. This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to choice of law rules. This Agreement shall lapse and become null and void if the Public Offering Date shall not have occurred on or before August 15, 2019.

Very truly yours,

Printed Name: _____
Date: _____

[Signature page to Lock-up Agreement]



Darren K. DeStefano
+1 703 456 8034
ddestefano@cooley.com

July 29, 2019

Cara Therapeutics, Inc.
4 Stamford Plaza
107 Elm Street
Stamford, CT 06902

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the offering by Cara Therapeutics, Inc., a Delaware corporation (the "**Company**"), of 6,325,000 shares of the Company's common stock, par value \$0.001 per share (the "**Shares**"), including 825,000 shares sold pursuant to the exercise of an option to purchase additional shares, pursuant to the Registration Statement on Form S-3 (File No. 333-230333), filed with the Securities and Exchange Commission (the "**Commission**") under the Securities Act of 1933, as amended (the "**Act**"), on March 15, 2019, which was declared effective by the Commission on April 4, 2019 (the "**Registration Statement**"), and the related prospectus, dated April 4, 2019 (the "**Base Prospectus**"), and the final prospectus supplement, dated July 24, 2019 (together with the Base Prospectus, the "**Prospectus**"), filed with the Commission pursuant to Rule 424(b) under the Act.

In connection with this opinion, we have examined and relied upon the Registration Statement and the Prospectus, the Company's Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws, each as currently in effect, and the originals or copies certified to our satisfaction of such other documents, records, certificates, memoranda and other instruments as we deem necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies thereof and the due execution and delivery of all documents other than by the Company where due execution and delivery are a prerequisite to the effectiveness thereof. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not sought to independently verify such matters.

Our opinion herein is expressed solely with respect to the General Corporation Law of the State of Delaware. Our opinion is based on these laws as in effect on the date hereof. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation.

ONE FREEDOM SQUARE, RESTON TOWN CENTER, 11951 FREEDOM DRIVE, RESTON, VA 20190-5656 T: (703) 456-8000 F: (703) 456-8100 WWW.COOLEY.COM



Cara Therapeutics, Inc.
July 29, 2019
Page Two

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued in accordance with the Registration Statement and the Prospectus, will be validly issued, fully paid and non-assessable.

We consent to the reference to our firm under the caption "Legal Matters" in the Prospectus included in the Registration Statement and to the filing of this opinion as an exhibit to a Current Report of the Company on Form 8-K.

Very truly yours,

COOLEY LLP

By: /s/ Darren K. DeStefano
Darren K. DeStefano

ONE FREEDOM SQUARE, RESTON TOWN CENTER, 11951 FREEDOM DRIVE, RESTON, VA 20190-5656 T: (703) 456-8000 F: (703) 456-8100 WWW.COOLEY.COM

Cara Therapeutics Announces Pricing of \$126.5 Million Offering of Common Stock

STAMFORD, Conn., July 24, 2019 – Cara Therapeutics, Inc. (Nasdaq: CARA), a clinical-stage biopharmaceutical company focused on developing and commercializing new chemical entities designed to alleviate pruritus by selectively targeting peripheral kappa opioid receptors, today announced the pricing of its underwritten public offering of 5,500,000 shares of its common stock at a public offering price of \$23.00 per share. The offering is expected to close on or about July 29, 2019, subject to the satisfaction of customary closing conditions. The gross proceeds from the offering, before deducting underwriting discounts and commissions and estimated offering expenses payable by Cara Therapeutics, are expected to be approximately \$126.5 million. In addition, Cara Therapeutics expects to grant certain of the underwriters a 30-day option to purchase up to 825,000 additional shares of its common stock on the same terms and conditions. All of the shares in the proposed offering are to be sold by Cara Therapeutics.

Cara Therapeutics intends to use the net proceeds from the underwritten offering to fund the activities leading to the submission of a new drug application to the U.S. Food and Drug Administration (FDA) for KORSUVA (CR845/difelikefalin) Injection for the treatment of pruritus associated with chronic kidney disease (CKD) in hemodialysis patients and subsequent pre-commercialization activities, and the advancement of its clinical programs for Oral KORSUVA, including completion of Phase 2 trials for the treatment of pruritus in patients with CKD (Stage III-V), patients with chronic liver disease and patients with atopic dermatitis, as well as for working capital and other general corporate purposes.

J.P. Morgan and Jefferies acted as lead joint book-running managers for the offering. Piper Jaffray & Co. and Stifel also acted as book-runners for the offering. Needham & Company and Janney Montgomery Scott acted as co-managers for the offering.

The offering is being made only by means of a written prospectus supplement and prospectus forming part of a shelf registration statement previously filed with and declared effective by the Securities and Exchange Commission (SEC). Copies of the final prospectus supplement and accompanying prospectus may be obtained, when available, by contacting J.P. Morgan Securities LLC, Attention: Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, NY 11717, by telephone at (866) 803-9204, or by email at prospectus-eq_fi@jpmchase.com; Jefferies LLC, Attention: Equity Syndicate Prospectus Department, 520 Madison Avenue, 2nd Floor, New York, NY 10022, by telephone at (877) 821-7388, or by email at prospectus_department@jefferies.com; Piper Jaffray & Co., Attention: Prospectus Department, 800 Nicollet Mall, J12S03, Minneapolis, MN 55402, by telephone at (800) 747-3924, or by email at prospectus@pjc.com; or from Stifel, Nicolaus & Company, Incorporated, Attention: Syndicate, One Montgomery Street, Suite 3700, San Francisco, CA 94104, by telephone at (415) 364-2720, or by email at syndprospectus@stifel.com.

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

About Cara Therapeutics

Cara Therapeutics is a clinical-stage biopharmaceutical company focused on developing and commercializing new chemical entities designed to alleviate pruritus by selectively targeting peripheral kappa opioid receptors (KORs). Cara is developing a novel and proprietary class of product candidates, led by KORSUVA™ (CR845/difelikefalin), a first-in-class KOR agonist that targets the body's peripheral nervous system, as well as certain immune cells. In both Phase 3 and Phase 2 trials, KORSUVA Injection has demonstrated statistically significant reductions in itch intensity and concomitant improvement in quality of life measures in hemodialysis patients with moderate-to-severe chronic kidney disease-associated pruritus (CKD-aP). KORSUVA Injection is currently being investigated in pivotal Phase 3 trials in hemodialysis patients with CKD-aP. Oral KORSUVA is in Phase 2 trials for the treatment of pruritus in patients with CKD, atopic dermatitis and primary biliary cholangitis (PBC).

The FDA has conditionally accepted KORSUVA™ as the trade name for difelikefalin injection. CR845/difelikefalin is an investigational drug product and its safety and efficacy have not been fully evaluated by any regulatory authority.

Forward-Looking Statements

This press release contains or may imply “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Because such statements deal with future events and are based on Cara Therapeutics' current expectations, they are subject to various risks and uncertainties and actual results, performance or achievements of Cara Therapeutics could differ materially from those described in or implied by the statements in this press release. For example, forward-looking statements include statements regarding Cara Therapeutics' public offering, including the satisfaction of customary closing conditions and its anticipated use of proceeds from the offering. These forward-looking statements are subject to other risks and uncertainties discussed in Cara Therapeutics' filings with the SEC; including in the “Risk Factors” section of Cara Therapeutics' Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on March 12, 2019 and subsequent filings with the SEC. Except as otherwise required by law, Cara Therapeutics disclaims any intention or obligation to update or revise any forward-looking statements, which speak only as of the date hereof, whether as a result of new information, future events or circumstances or otherwise.

CORPORATE CONTACT:

Derek Chalmers, Ph.D., D.Sc.
President & CEO
Cara Therapeutics, Inc.
203-406-3700

MEDIA CONTACT:

Annie Starr
6 Degrees
973-415-8838
astarr@6degreespr.com

INVESTOR CONTACT:

Jane Urheim
Stern Investor Relations, Inc.
212-362-1200
jane.urheim@sternir.com

**Cara Therapeutics Announces Closing of Its Public Offering of Common Stock and
Full Exercise of Underwriters' Option to Purchase Additional Shares**

STAMFORD, Conn., July 29, 2019 – Cara Therapeutics, Inc. (Nasdaq: CARA), a clinical-stage biopharmaceutical company focused on developing and commercializing new chemical entities designed to alleviate pruritus by selectively targeting peripheral kappa opioid receptors, today announced the closing of its underwritten public offering of 6,325,000 shares of its common stock at a public offering price of \$23.00 per share, which includes 825,000 shares sold pursuant to the underwriters' full exercise of their option to purchase additional shares. All of the shares in the offering were sold by Cara Therapeutics. The gross proceeds from the offering, before deducting underwriting discounts and commissions and estimated offering expenses payable by Cara Therapeutics, were approximately \$145.5 million.

Cara Therapeutics intends to use the net proceeds from the underwritten offering to fund the activities leading to the submission of a new drug application to the U.S. Food and Drug Administration (FDA) for KORSUVA (CR845/difelikefalin) Injection for the treatment of pruritus associated with chronic kidney disease (CKD) in hemodialysis patients and subsequent pre-commercialization activities, and the advancement of its clinical programs for Oral KORSUVA, including completion of Phase 2 trials for the treatment of pruritus in patients with CKD (Stage III-V), patients with chronic liver disease and patients with atopic dermatitis, as well as for working capital and other general corporate purposes.

J.P. Morgan and Jefferies acted as lead joint book-running managers for the offering. Piper Jaffray & Co. and Stifel also acted as book-runners for the offering. Needham & Company and Janney Montgomery Scott acted as co-managers for the offering.

The offering was made only by means of a written prospectus supplement and prospectus forming part of a shelf registration statement previously filed with and declared effective by the Securities and Exchange Commission (SEC). Copies of the final prospectus supplement and accompanying prospectus may be obtained by contacting J.P. Morgan Securities LLC, Attention: Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, NY 11717, by telephone at (866) 803-9204, or by email at prospectus-eq_fi@jpmchase.com; Jefferies LLC, Attention: Equity Syndicate Prospectus Department, 520 Madison Avenue, 2nd Floor, New York, NY 10022, by telephone at (877) 821-7388, or by email at prospectus_department@jefferies.com; Piper Jaffray & Co., Attention: Prospectus Department, 800 Nicollet Mall, J12S03, Minneapolis, MN 55402, by telephone at (800) 747-3924, or by email at prospectus@pjc.com; or from Stifel, Nicolaus & Company, Incorporated, Attention: Syndicate, One Montgomery Street, Suite 3700, San Francisco, CA 94104, by telephone at (415) 364-2720, or by email at syndprospectus@stifel.com.

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

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