
**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**

August 1, 2019

Date of report (Date of earliest event reported)

Agile Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-36464
(Commission
File Number)

23-2936302
(IRS Employer
Identification No.)

101 Poor Farm Road
Princeton, New Jersey
(Address of principal executive offices)

08540
(Zip Code)

Registrant's telephone number, including area code **(609) 683-1880**

(Former name or former address, if changed since last report)

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

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

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

Title of Each Class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, par value \$0.0001 per share	AGRX	The Nasdaq Capital Market

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

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 August 2, 2019, Agile Therapeutics, Inc. (the “Company”) entered into an underwriting agreement (the “Underwriting Agreement”) with Oppenheimer & Co. Inc., as representative of the several underwriters named therein (the “Underwriters”), relating to the issuance and sale of 12,631,579 shares (the “Shares”) of the Company’s common stock to the Underwriters (the “Offering”). The Shares were sold at a price to the public of \$0.95 per Share and were purchased by the Underwriters from the Company at a price of \$0.893 per Share. The Company also granted the Underwriters a 30-day option to purchase up to 1,894,736 additional shares of its common stock. The net proceeds to the Company from the Offering, excluding any exercise by the Underwriters of their 30-day option to purchase additional shares, are expected to be approximately \$10.9 million after deducting the underwriting discounts and commissions and estimated offering expenses payable by the Company.

The Offering is expected to close on or about August 6, 2019, subject to the satisfaction of customary closing conditions. 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, and were solely for the benefit of the parties to the Underwriting Agreement.

The Offering is being made by means of a written prospectus forming part of a shelf registration statement on Form S-3 (Registration Statement No. 333-228149), previously filed by the Company with the Securities and Exchange Commission (the “SEC”) and declared effective by the SEC on November 14, 2018, and a related prospectus supplement. The Underwriting Agreement is attached as Exhibit 1.1 hereto, and the description of the terms of the Underwriting Agreement is qualified in its entirety by reference to such exhibit. A copy of the opinion of Morgan, Lewis and Bockius LLP relating to the legality of the issuance and sale of the Shares in the Offering is attached as Exhibit 5.1 hereto.

On August 1, 2019, the Company issued a press release announcing that it had commenced the Offering. On August 2, 2019, the Company issued a press release announcing the pricing of the Offering. Copies of these press releases are attached as Exhibits 99.1 and 99.2 hereto, respectively.

Neither the disclosures on this Form 8-K nor the attached press releases shall 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.

Item 9.01. Financial Statements and Exhibits.**(d) Exhibits.**

Exhibit Number	Description
1.1	Underwriting Agreement dated August 2, 2019
5.1	Opinion of Morgan, Lewis & Bockius LLP
23.1	Consent of Morgan, Lewis & Bockius LLP (included in Exhibit 5.1)
99.1	Press Release dated August 1, 2019
99.2	Press Release dated August 2, 2019

SIGNATURES

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

Agile Therapeutics, Inc.

Dated: August 2, 2019

By: /s/ Alfred Altomari

Name: Alfred Altomari

Title: President and Chief Executive Officer

12,631,579 Shares

Agile Therapeutics, Inc.

Common Stock

(\$0.0001 Par Value)

EQUITY UNDERWRITING AGREEMENT

August 2, 2019

Oppenheimer & Co. Inc.
as Representative of the several
Underwriters named in Schedule I hereto
85 Broad Street
New York, New York 10004

Ladies and Gentlemen:

Agile Therapeutics, Inc., a Delaware corporation (the "Issuer"), proposes to sell to the several underwriters (the "Underwriters") named in Schedule I hereto for whom you are acting as representative (the "Representative") an aggregate of 12,631,579 shares of the Issuer's Common Stock, \$0.0001 per share par value (the "Firm Securities"). The respective amounts of the Firm Securities to be so purchased by the several Underwriters are set forth opposite their names in Schedule I hereto. The Issuer also proposes to sell at the Underwriters' option an aggregate of up to 1,894,736 additional shares of the Issuer's Common Stock (the "Option Securities") as set forth below.

As the Representative, you have advised the Issuer (a) that you are authorized to enter into this underwriting agreement (this "Agreement") on behalf of the several Underwriters, and (b) that the several Underwriters are willing, acting severally and not jointly, to purchase the numbers of Firm Securities set forth opposite their respective names in Schedule I hereto, plus their pro rata portion of the Option Securities in whole or in part (to the extent the aforementioned option is exercised) for the accounts of the several Underwriters. The Firm Securities and the Option Securities (to the extent the aforementioned option is exercised) are herein collectively called the "Shares."

The Registration Statement (as defined herein) (i) has been prepared by the Issuer in conformity with the requirements of the Securities Act of 1933, as amended (the "Securities Act"), and the rules and regulations (the "Rules and Regulations") of the United States Securities

and Exchange Commission (the “Commission”) thereunder; (ii) has been filed with the Commission under the Securities Act; and (iii) has been declared effective under the Securities Act. As used in this Agreement:

- (i) “Applicable Time” means 8:10 a.m., New York City time, on August 2, 2019;
- (ii) “Base Prospectus” means the base prospectus, dated November 14, 2018, included in the Registration Statement;
- (iii) “Disclosure Package” means, as of the Applicable Time, the most recent Preliminary Prospectus, together with (A) the information set forth on Schedule IV hereto and (B) each Issuer Free Writing Prospectus identified on Schedule III hereto, other than a road show that is an Issuer Free Writing Prospectus but is not required to be filed under Rule 433 of the Rules and Regulations;
- (iv) “Effective Date” means the date and time as of which the Registration Statement, or any post-effective amendment or amendments thereto, became or becomes effective;
- (v) “Issuer Free Writing Prospectus” means each “free writing prospectus” (as defined in Rule 405 of the Rules and Regulations) or “issuer free writing prospectus” (as defined in Rule 433 of the Rules and Regulations) prepared by or on behalf of the Issuer or used or referred to by the Issuer in connection with the offering of the Shares;
- (vi) “Preliminary Prospectus” means any preliminary prospectus (including any preliminary prospectus supplement) relating to the offering of the Shares filed with the Commission pursuant to Rule 424(b) of the Rules and Regulations which is filed prior to the filing of the Prospectus, together with the Base Prospectus;
- (vii) “Prospectus” means the final prospectus (including any prospectus supplement thereto) relating to the offering of the Shares, as filed with the Commission pursuant to Rule 424(b) of the Rules and Regulations, together with the Base Prospectus;
- (viii) “Registration Statement” means the registration statement on Form S-3 (File No. 333-228149), as amended as of the Effective Date, including any Preliminary Prospectus or the Prospectus and all exhibits to such registration statement and, in the event any post-effective amendment thereto or Rule 462(b) Registration Statement becomes effective prior to the Closing Date, shall also mean such registration statement as so amended or such Rule 462(b) Registration Statement, as the case may be; and
- (ix) “Rule 462(b) Registration Statement” shall mean a registration statement and any amendments thereto filed pursuant to Rule 462(b) relating to the offering covered by the Registration Statement referenced in Section 1(a) hereof.

Any reference herein to the Registration Statement, the Base Prospectus, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include any documents incorporated by reference therein pursuant to Item 12 of Form S-3 which were filed under the Securities Exchange Act of 1934, as amended, and the Rules and Regulations of the Commission

thereunder (collectively, the “Exchange Act”) prior to the Effective Date or the issue date of the Base Prospectus, any Preliminary Prospectus or the Prospectus, as the case may be; and any reference herein to the terms “amend,” “amendment” or “supplement” with respect to the Registration Statement, the Base Prospectus, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include the filing of any document under the Exchange Act after the Effective Date or the issue date of the Base Prospectus, any Preliminary Prospectus or the Prospectus, as the case may be, deemed to be incorporated therein by reference.

In consideration of the mutual agreements contained herein and of the interests of the parties in the transactions contemplated hereby, the parties hereto agree as follows:

1. REPRESENTATIONS AND WARRANTIES OF THE ISSUER.

The Issuer represents and warrants to each of the Underwriters as follows:

(a) The Issuer meets the requirements for use of Form S-3 under the Securities Act. The Registration Statement, which was initially filed with the Commission under the Securities Act on November 2, 2018, including all amendments thereto filed prior to the Applicable Time, was declared effective under the Securities Act on November 14, 2018. No stop order suspending the effectiveness of the Registration Statement is in effect, and no proceedings for such purpose are pending before or, to the knowledge of the Issuer, threatened by the Commission. The Commission has not issued any order preventing or suspending the use of any Preliminary Prospectus or any Issuer Free Writing Prospectus. Copies of the Registration Statement and each of the amendments thereto have been delivered by the Issuer to you.

(b) The Registration Statement conforms, and any further amendments or supplements to the Registration Statement will conform, in all material respects to the requirements of the Securities Act and the Rules and Regulations. The Prospectus and any Preliminary Prospectus each conforms and, as amended or supplemented, will conform, in all material respects to the requirements of the Securities Act and the Rules and Regulations. As of the Effective Date, the Registration Statement did not, and any further amendments to the Registration Statement, when they become effective, 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; as of its date and the date hereof, the Prospectus does not, and as amended or supplemented on the Closing Date and each Option Closing Date, if any, will not, 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 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; each Issuer Free Writing Prospectus listed on Schedule III hereto does not conflict with the information included in the Registration Statement and each such Issuer Free Writing Prospectus listed on Schedule III, as supplemented by and taken together with the 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, that the

representations and warranties set forth in this sentence do not apply to statements or omissions in the Registration Statement, the Prospectus, any Preliminary Prospectus, or any Issuer Free Writing Prospectus or any such amendment or supplement thereto in reliance upon and in conformity with written information furnished to the Issuer by any Underwriter through the Representative expressly for use therein, which information is specified in Section 13 below.

(c) The documents incorporated by reference in the Registration Statement, the Prospectus and the Disclosure Package, at the respective times they were or hereafter are filed with the Commission, complied and will comply in all material respects with the requirements of the Exchange Act, and none of such documents contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; and any further documents so filed and incorporated by reference in the Registration Statement, the Prospectus or the Disclosure Package, when such documents are filed with the Commission will conform in all material respects to the requirements of the Exchange Act and will not contain any 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.

(d) Each Issuer Free Writing Prospectus, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Shares or until any earlier date that the Issuer notified or notifies the Representative as described in the next sentence, did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, including any document incorporated by reference therein and any prospectus supplement deemed to be a part thereof that has not been superseded or modified, the Preliminary Prospectus or the Prospectus.

If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or would conflict with the information contained in the Registration Statement, the Preliminary Prospectus or the Prospectus or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances prevailing at the subsequent time, not misleading, the Issuer has promptly notified or will promptly notify the Representative and has promptly amended or will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission.

(e) Each of the statements made by the Issuer in such documents within the coverage of Rule 175(b) of the Rules and Regulations, including (but not limited to) any projections, results of operations or statements with respect to future available cash or future cash distributions of the Issuer or the anticipated ratio of taxable income to distributions, was made or will be made with a reasonable basis and in good faith. Notwithstanding the foregoing, this representation and warranty shall not apply to any statements or omissions made in reliance upon and in conformity with written information concerning the Underwriters furnished to the Issuer by or on behalf of any Underwriter specifically for inclusion in the Registration Statement, any Preliminary Prospectus or the Prospectus.

(f) This Agreement has been duly authorized, executed and delivered by the Issuer, and constitutes a valid, legal and binding obligation of the Issuer, enforceable in accordance with its terms, except as rights to indemnity hereunder may be limited by federal or state securities laws and except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting the rights of creditors generally, and subject to general principles of equity. The Issuer has full power and authority to enter into this Agreement and to authorize, issue and sell the Shares as contemplated by this Agreement.

(g) The Issuer has been duly organized and is validly existing as a corporation in good standing under the laws of the State of Delaware, with corporate power and authority to own or lease its properties and conduct its business as described in the Prospectus and the Disclosure Package. The Issuer is duly qualified to transact business and is in good standing in all jurisdictions in which the conduct of its business requires such qualification; except where the failure to be so qualified or to be in good standing would not have a material adverse effect on the condition (financial or otherwise), properties, assets, liabilities, rights, operations, earnings, business, management or prospects of the Issuer taken as a whole, whether or not arising from transactions in the ordinary course of business (a "Material Adverse Effect"). The Issuer has no subsidiaries.

(h) The outstanding shares of Common Stock of the Issuer have been duly authorized and validly issued and are fully paid and non-assessable; the Shares to be issued and sold by the Issuer have been duly authorized and when issued and paid for as contemplated herein will be validly issued, fully paid and non-assessable; and no preemptive rights of stockholders exist with respect to any of the Shares or the issue and sale thereof. Neither the filing of the Registration Statement nor the offering or sale of the Shares as contemplated by this Agreement gives rise to any rights, other than those which have been waived or satisfied, for or relating to the registration of any shares of Common Stock.

(i) The information set forth under the caption "Capitalization" in the Prospectus and the Disclosure Package is true and correct in all material respects. All of the Shares conform to the description thereof contained in the Prospectus and the Disclosure Package in all material respects. The form of certificates for the Shares conforms to the corporate law of the jurisdiction of the Issuer's incorporation. Immediately after the issuance and sale of the Shares to the Underwriters, no shares of Preferred Stock, par value \$0.0001 per share, of the Issuer (the "Preferred Stock") shall be issued and outstanding and no holder of any shares of capital stock, securities convertible into or exchangeable or exercisable for capital stock or options, warrants or other rights to purchase capital stock or any other securities of the Issuer shall have any existing or future right to acquire any shares of Preferred Stock of the Issuer. No holders of securities of the Issuer have rights to the registration of such securities under the Registration Statement that have not been waived.

(j) The financial statements of the Issuer, together with related notes and schedules included or incorporated by reference in the Registration Statement, the Prospectus and the Disclosure Package, present fairly in all material respects the financial position and the results of operations and cash flows of the Issuer, at the indicated dates and for the indicated periods. Such financial statements and related schedules have been prepared in accordance with

U.S. generally accepted principles of accounting (“U.S. GAAP”), consistently applied throughout the periods involved, except as disclosed therein, and all adjustments necessary for a fair presentation of results for such periods have been made. The summary financial and statistical data included in the Registration Statement, the Prospectus and the Disclosure Package presents fairly in all material respects the information shown therein and such data has been compiled on a basis consistent with the financial statements presented therein and the books and records of the Issuer. The pro forma financial statements and other pro forma financial information included in the Registration Statement, Prospectus and the Disclosure Package, if any, present fairly in all material respects the information shown therein, have been prepared in accordance with the Commission’s rules and guidelines with respect to pro forma financial statements, have been properly compiled on the pro forma bases described therein, and, in the opinion of the Issuer, the assumptions used in the preparation thereof are reasonable and the adjustments used therein are appropriate to give effect to the transactions or circumstances referred to therein. The statistical, industry-related and market-related data included in the Registration Statement, the Prospectus and the Disclosure Package are based on or derived from sources which the Issuer reasonably and in good faith believes are reliable and accurate.

(k) The Issuer has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or is contemplating terminating such registration or quotation

(l) The Issuer maintains a system of internal accounting controls that comply with the requirements of the Exchange Act and are sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management’s general or specific authorization; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with U.S. GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management’s general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as disclosed in the Registration Statement, the Disclosure Package and the Prospectus, there are no material weaknesses (as defined by the Public Company Accounting Oversight Board) in the Issuer’s internal controls over financial reporting. The Issuer’s auditors and the audit committee of the Board of Directors of the Issuer have been advised of: (i) all significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which have adversely affected or are reasonably likely to adversely affect the Issuer’s ability to record, process, summarize and report financial information; and (ii) any fraud, whether or not material, that involves management or other employees who have a significant role in the Issuer’s internal controls over financial reporting.

(m) Ernst & Young LLP (the “Auditor”), which has certified certain financial statements of the Issuer and delivered its opinion with respect to the audited financial statements and schedules included or incorporated by reference in the Registration Statement and the Prospectus, is an independent registered public accounting firm with respect to the Issuer within the meaning of the Securities Act and the Rules and Regulations, the Exchange Act and the rules of the Public Company Accounting Oversight Board.

(n) Except as described in the Preliminary Prospectus and the Prospectus and as preapproved in accordance with the requirements set forth in Section 10A of the Exchange Act, the Auditor has not been engaged by the Issuer to perform any “prohibited activities” (as defined in Section 10A of the Exchange Act).

(o) Except as described in the Preliminary Prospectus and the Prospectus, there are no material off-balance sheet arrangements (as defined in Item 303 of Regulation S-K) that have or are reasonably likely to have a material current or future effect on the Issuer’s financial condition, revenues or expenses, changes in financial condition, results of operations, liquidity, capital expenditures or capital resources.

(p) The Issuer’s Board of Directors has validly appointed an audit committee whose composition satisfies the requirements of Rule 5605 of the Nasdaq Stock Market and the Board of Directors and/or the audit committee has adopted a charter that satisfies the requirements of Rule 5605 of the Nasdaq Stock Market. The audit committee has reviewed the adequacy of its charter within the past twelve months.

(q) There is no action, suit, claim or proceeding pending or, to the knowledge of the Issuer, threatened against the Issuer before any court or administrative agency or otherwise (1) that are required to be described in the Registration Statement, the Prospectus or the Disclosure Package and are not so described or (2) which, if determined adversely to the Issuer, might have a Material Adverse Effect or prevent the consummation of the transactions contemplated hereby, except as set forth in the Registration Statement, the Prospectus and the Disclosure Package.

(r) No labor problem or dispute with the employees of the Issuer exists or, to the Issuer’s knowledge, is threatened or imminent, and the Issuer is not aware of any existing or imminent labor disturbance by the employees of any of its principal suppliers, contractors or customers, that could have a Material Adverse Effect.

(s) The Issuer has good and marketable title to all of the properties and assets reflected in the financial statements (or as described in the Prospectus and the Disclosure Package) hereinabove described, subject to no lien, mortgage, pledge, charge or encumbrance of any kind, except those reflected in such financial statements (or as described in the Prospectus and the Disclosure Package) or which are not material in amount. The Issuer occupies its leased properties under valid and binding leases conforming in all material respects to the description thereof set forth in the Prospectus and the Disclosure Package.

(t) The Issuer has filed, or has properly requested extensions for, all material Federal, state, local and foreign tax returns which have been required to be filed and has paid all material taxes indicated by said returns and all assessments received by it to the extent that such taxes have become due and are not being contested in good faith and for which an adequate reserve for accrual has been established in accordance with U.S. GAAP. All material amounts of tax liabilities have been adequately provided for in the financial statements of the Issuer, and the Issuer does not know of any actual or proposed additional material tax assessments. There are no transfer taxes or other similar fees or charges under Federal law or the laws of any state, or

any political subdivision thereof, required to be paid in connection with the execution and delivery of this Agreement or the issuance by the Issuer or sale by the Issuer of the Shares.

(u) Since the respective dates as of which information is given in the Registration Statement and the Prospectus, as it may be amended or supplemented, there has not been any material adverse change or any development involving a prospective change which has had or is reasonably likely to have a Material Adverse Effect, whether or not occurring in the ordinary course of business, and there has not been any material transaction entered into or any material transaction that is probable of being entered into by the Issuer other than transactions in the ordinary course of business and changes and transactions described in the Prospectus and the Disclosure Package. The Issuer has no material contingent obligations that are not disclosed in the Issuer's financial statements in the Registration Statement and the Prospectus.

(v) The Issuer is not, nor with the giving of notice or lapse of time or both, will the Issuer be, in violation of or in default under its Amended and Restated Certificate of Incorporation ("Charter") or Amended and Restated By-laws ("By-laws") or under any agreement, lease, contract, indenture or other instrument or obligation to which it is a party or by which it, or any of its properties, is bound and which default has had or is reasonably likely to have a Material Adverse Effect. The execution and delivery of this Agreement and the consummation of the transactions herein contemplated and the fulfillment of the terms hereof will not conflict with or result in a breach of any of the terms or provisions of, or constitute a default under, (i) any contract, indenture, mortgage, deed of trust or other agreement or instrument to which the Issuer is a party, (ii) of the Charter or By-laws of the Issuer or (iii) any order, rule or regulation applicable to the Issuer of any court or of any regulatory body or administrative agency or other governmental body having jurisdiction, except, with respect to the preceding clauses (i) and (iii), any conflict or breach that could not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

(w) Each approval, consent, order, authorization, designation, declaration or filing by or with any regulatory, administrative or other governmental body necessary in connection with the execution and delivery by the Issuer of this Agreement and the consummation of the transactions herein contemplated (except such additional steps as may be required by the Commission, the Financial Industry Regulatory Authority, Inc. ("FINRA") or such additional steps as may be necessary to qualify the Shares for public offering by the Underwriters under state securities or Blue Sky laws) has been obtained or made and is in full force and effect.

(x) The Issuer has all licenses, certifications, permits, franchises, approvals, clearances and other regulatory authorizations ("Permits") from governmental authorities as are necessary to conduct its businesses as currently conducted and to own, lease and operate its properties in the manner described in the Prospectus and the Disclosure Package, except where the failure to have the same would not, individually or in the aggregate, have a Material Adverse Effect. There is no claim, proceeding or controversy, pending or, to the knowledge of the Issuer, threatened, involving the status of or sanctions under any of the Permits. The Issuer has fulfilled and performed all of its material obligations with respect to the Permits, and the Issuer is not in

violation of or received notice regarding a possible violation, default or revocation of any such Permit. None of the Permits contains any restriction that is materially burdensome on the Issuer.

(y) To the Issuer's knowledge, there are no affiliations or associations between any member of FINRA and any of the Issuer's officers, directors or 5% or greater security holders, except as set forth in the Registration Statement.

(z) Neither the Issuer nor, to the Issuer's knowledge, any of its affiliates, has taken or may take, directly or indirectly, any action designed to cause or result in, or which has constituted or which might reasonably be expected to constitute, the stabilization or manipulation of the price of shares of Common Stock to facilitate the sale or resale of the Shares. The Issuer acknowledges that the Underwriters may engage in passive market making transactions in the Shares of The Nasdaq Stock Market in accordance with Regulation M under the Exchange Act.

(aa) The Issuer is not an "investment company" within the meaning of such term under the Investment Company Act of 1940, and the rules and regulations of the Commission thereunder (collectively, the "1940 Act").

(bb) The Issuer carries, or is covered by, insurance in such amounts and covering such risks as is adequate in all material respects for the conduct of their respective businesses and the value of their respective properties and as is customary for companies engaged in similar industries. All policies of insurance insuring the Issuer or any of its businesses, assets, employees, officers and directors are in full force and effect, and the Issuer is in compliance with the terms of such policies in all material respects. There are no material claims by the Issuer under any such policy or instrument as to which an insurance company is denying liability or defending under a reservation of rights clause.

(cc) The Issuer is in compliance in all material respects with all presently applicable provisions of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder ("ERISA"); no "reportable event" (as defined in ERISA) has occurred with respect to any "pension plan" (as defined in ERISA) for which the Issuer would have any liability; the Issuer has not incurred and does not expect to incur liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any "pension plan" or (ii) Sections 412 or 4971 of the Internal Revenue Code of 1986, as amended, including the regulations and published interpretations thereunder (the "Code"); and each "pension plan" for which the Issuer would have any liability is intended to be qualified under Section 401(a) of the Code in all material respects and to the Issuer's knowledge, nothing has occurred, whether by action or by failure to act, which would cause the pension plan to lose such qualification.

(dd) Other than as contemplated by this Agreement, the Issuer has not incurred any liability for any finder's or broker's fee, or agent's commission in connection with the execution and delivery of this Agreement or the consummation of the transactions contemplated hereby.

(ee) The Issuer does not own, directly or indirectly, any shares of capital stock and does not have any other equity or ownership or proprietary interest in any corporation, partnership, association, trust, limited liability company, joint venture or other entity.

(ff) There are no statutes, regulations, contracts or other documents (including, without limitation, any voting agreement) that are required to be described in the Registration Statement, the Prospectus or the Disclosure Package, or to be filed as exhibits to the Registration Statement, that are not described or filed as required. The Issuer has not sent or received any written notice indicating the termination of or intention to terminate any of the contracts or agreements referred to or described in the Registration Statement, the Prospectus or the Disclosure Package, or filed as an exhibit to the Registration Statement, and no such termination has been threatened by the Issuer or any other party to any such contract or agreement.

(gg) The Issuer is not in violation of any statute, any rule, regulation, decision or order of any governmental agency or body or any court, domestic or foreign, relating to the use, disposal or release of hazardous chemicals, toxic substances or radioactive and biological materials or relating to the protection or restoration of the environment or human exposure to hazardous chemicals, toxic substances or radioactive and biological materials (collectively, "Environmental Laws"). The Issuer does not own or operate 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 would, individually or in the aggregate, have a Material Adverse Effect; and the Issuer is not aware of any pending investigation which might lead to such a claim.

(hh) No payments or inducements have been made or given, directly or indirectly, to any federal or local official or candidate for, any federal or state office in the United States or foreign offices by the Issuer, by any of its officers, directors, employees or agents or, to the knowledge of the Issuer, by any other person in connection with any opportunity, contract, permit, certificate, consent, order, approval, waiver or other authorization relating to the business of the Issuer, except for such payments or inducements as were lawful under applicable laws, rules and regulations. Neither the Issuer nor, to the best knowledge of the Issuer, any director, officer, agent, employee or other person associated with or acting on behalf of the Issuer, (i) has used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made any direct or indirect unlawful payment to any government official or employee from corporate funds; (iii) violated or is in violation of any provision of the Foreign Corrupt Practices Act of 1977; or (iv) made any bribe, unlawful rebate, payoff, influence payment, kickback or other unlawful payment in connection with the business of the Issuer.

(ii) Neither the Issuer nor, to the knowledge of the Issuer, any director, officer, agent, employee or affiliate of the Issuer is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department ("OFAC"); and the Issuer will not directly or indirectly use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other person

or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(jj) The Issuer owns, licenses or otherwise has rights in all United States and foreign patents, trademarks, service marks, tradenames, copyrights, trade secrets and other proprietary rights necessary for the conduct of its business as currently carried on and as proposed to be carried on as described in the Registration Statement, the Prospectus and the Disclosure Package (collectively and together with any applications or registrations for the foregoing, the "Intellectual Property"). Except as specifically described in the Registration Statement, the Prospectus and the Disclosure Package, (i) no third parties have obtained rights to any such Intellectual Property from the Issuer, other than licenses granted in the ordinary course and those that would not have a Material Adverse Effect; (ii) to the Issuer's knowledge, there is no infringement or misappropriation by third parties of any such Intellectual Property; (iii) there is no pending or, to the Issuer's knowledge, threatened action, suit, proceeding or claim by others challenging the Issuer's rights in or to any such Intellectual Property, and the Issuer is unaware of any facts which would form a basis for any such claim; (iv) there is no pending or, to the Issuer's knowledge, threatened action, suit, proceeding or claim by others challenging the validity, enforceability, or scope of any such Intellectual Property, and the Issuer is unaware of any facts which would form a basis for any such claim; (v) there is no prior, pending or to the Issuer's knowledge, threatened action, suit, proceeding or claim by others that the Issuer has, or any of its products, product candidates or services infringes, misappropriates or otherwise violates, or would infringe upon, misappropriate or otherwise violate, upon the development or commercialization of such products, product candidates or services described in the Registration Statement, the Prospectus and the Disclosure Package, any patent, trademark, copyright, trade secret or other proprietary right of others, and the Issuer is unaware of any facts which would form a basis for any such claim; (vi) to the Issuer's knowledge there is no patent or patent application that contains claims that cover or may cover any Intellectual Property described in the Registration Statement, the Prospectus or the Disclosure Package as being owned by or licensed to the Issuer, or that is necessary for the conduct of its business as currently conducted or contemplated, or that interferes with the issued or pending claims of any such Intellectual Property; (vii) there is no prior art or public or commercial activity of which the Issuer is aware that may render any patent held by the Issuer invalid or any patent application held by the Issuer unpatentable, which has not been disclosed to the U.S. Patent and Trademark Office; and (viii) the Issuer has not committed any act or omitted to undertake any act the effect of such commission or omission would reasonably be expected to render the Intellectual Property invalid or unenforceable in whole or in part. To the Issuer's knowledge, none of the technology employed by the Issuer has been obtained or is being used by the Issuer in violation of the rights of any person or third party. The Issuer knows of no infringement or misappropriation by others of the Intellectual Property. The Issuer has taken reasonable steps necessary to secure interests in the Intellectual Property from its employees, consultants, agents and contractors. There are no outstanding options, licenses or agreements of any kind relating to the Intellectual Property owned by the Issuer that are required to be described in the Registration Statement, the Prospectus or the Disclosure Package and are not described therein as so required.

(kk) The conduct of business by the Issuer complies, and at all times has complied, in all material respects with federal, state, local and foreign laws, statutes, ordinances,

rules, regulations, decrees, orders, Permits and other similar items (“Laws”) applicable to its business, including, without limitation, (i) the U.S. Food, Drug and Cosmetic Act (the “FD&C Act”) and similar federal, state, local and foreign Laws (ii) the Occupational Safety and Health Act, the Environmental Protection Act, the Toxic Substances Control Act and similar federal, state, local and foreign Laws applicable to hazardous or regulated substances and radioactive or biologic materials and (iii) licensing and certification Laws covering any aspect of the business of the Issuer. The Issuer has not received any written notification asserting, nor has knowledge of, any present or past failure to comply with or violation of any such Laws, except where such failure would not reasonably be expected to have a Material Adverse Effect.

(ll) The Issuer and its directors, officers, employees, agents, affiliates and representatives are, and at all times have been, in compliance in all material respects with all health care laws applicable to the Issuer or its products, product candidates or activities, including, but not limited to, the federal Anti-kickback Statute (42 U.S.C. § 1320a-7b(b)), the Anti-Inducement Law (42 U.S.C. § 1320a-7a(a)(5)), the civil False Claims Act (31 U.S.C. §§3729 et seq.), the criminal False Claims Law (42 U.S.C. § 1320a-7b(a)), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. Sections 286 and 287, and the health care fraud criminal provisions under the U.S. Health Insurance Portability and Accountability Act of 1996 (“HIPAA”) (42 U.S.C. Section 1320d et seq.), HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. §§ 17921 et seq.), the exclusion laws (42 U.S.C. § 1320a-7), the civil monetary penalties law (42 U.S.C. § 1320a-7a), Medicare (Title XVIII of the Social Security Act), Medicaid (Title XIX of the Social Security Act), the FD&C Act, the Public Health Service Act (42 U.S.C. § 201 et seq.), any similar local, state or federal laws, and the regulations promulgated pursuant to such laws (collectively, the “Health Care Laws”), and have not engaged in activities which are, as applicable, prohibited or cause for civil penalties or mandatory or permissive exclusion from Medicare, Medicaid, or any other state or federal health care program. The Issuer has not received any notification, correspondence or any other written or oral communication, including, without limitation, notification of any pending or threatened claim, suit, proceeding, hearing, enforcement, investigation, arbitration or other action, from any governmental authority of potential or actual non-compliance by, or liability of, the Issuer under any Health Care Laws.

(mm) Except to the extent disclosed in the Registration Statement, the Prospectus and the Disclosure Package (or any amendment or supplement thereto), the clinical and other studies, tests and research conducted by or on behalf of or sponsored by the Issuer are, and at all times have been, conducted in accordance with the FD&C Act and the regulations and guidelines promulgated thereunder, including Title 21 of the Code of Federal Regulations, and other U.S. Food and Drug Administration (“FDA”) regulations and guidelines governing clinical studies and good clinical practices, the protection of human subjects and applicable institutional review board, as well as other applicable federal, state and local Laws. The published descriptions of the results of such studies, tests and research are accurate and complete in all material respects and fairly present the data derived from such studies, tests and research, and the Issuer does not have any knowledge of any other studies, tests or research the results of which are inconsistent with or otherwise call into question the results described or referred to in the Prospectus and the Disclosure Package. Except to the extent disclosed in the Prospectus and the Disclosure Package (or any amendment or supplement thereto), the Issuer has not received any

notices or other correspondence from the FDA or any other governmental agency with respect to any clinical studies, tests or research that are described in the Prospectus and the Disclosure Package or the results of which are referred to in the Registration Statement and the Prospectus which require the termination, suspension, delay or modification of such studies, tests or research, otherwise require the Issuer to engage in any remedial activities with respect to such studies, test or research, or threaten to impose or actually impose any fines or other disciplinary actions.

(nn) The Issuer has not received any FDA Form 483, notice of adverse finding, warning letter, untitled letter or other correspondence or notice from the FDA or any similar regulatory authority alleging or asserting noncompliance by the Issuer. The Issuer is not a party to, nor has any 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.

(oo) Neither the Issuer, nor to its knowledge, any of its directors, officers employees or agents is debarred, suspended or excluded or has been convicted of any crime or any conduct that could result in a debarment, suspension or exclusion from any federal or state government health care program under 21 U.S.C. § 335a or any other Health Care Law. No claims, actions, proceedings or investigations that would reasonably be expected to result in such a debarment, suspension or exclusion are pending or, to the Issuer's knowledge, threatened against the Issuer or the Issuer's directors, officers, employees or agents.

(pp) The information contained in the Registration Statement and the Prospectus regarding the Issuer's expectations, plans and intentions, and any other information that constitutes "forward-looking" information within the meaning of the Securities Act and the Exchange Act were made by the Issuer on a reasonable basis and reflect the Issuer's good faith belief and/or estimate of the matters described therein.

(qq) Any certificate signed by any officer of the Issuer and delivered to the Representative or counsel for the Underwriters in connection with the offering of the Shares contemplated hereby shall be deemed a representation and warranty by the Issuer to each Underwriter and shall be deemed to be a part of this Section 1 and incorporated herein by this reference.

(rr) The Issuer is in compliance with all applicable provisions of the Sarbanes-Oxley Act of 2002 (the "Sarbanes-Oxley Act") and is actively taking steps to ensure that it will be in compliance with other provisions of the Sarbanes-Oxley Act that will become applicable to the Issuer.

(ss) The Issuer has established and maintains "disclosure controls and procedures" (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act); the Issuer's "disclosure controls and procedures" comply with the requirements of the Exchange Act and are reasonably designed to ensure that all information (both financial and non-financial) required to be disclosed by the Issuer in the reports that it will file or furnish under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and

regulations of the Commission, and that all such information is accumulated and communicated to the Issuer's management as appropriate to allow timely decisions regarding required disclosure and to make the certifications of the Chief Executive Officer and Chief Financial Officer of the Issuer required under the Exchange Act with respect to such reports.

(tt) There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees of indebtedness by the Issuer to or for the benefit of any of the officers or directors of the Issuer or any of their respective family members, except as disclosed in the Registration Statement, the Prospectus and the Disclosure Package. The Issuer has not directly or indirectly extended or maintained credit, arranged for the extension of credit, or renewed an extension of credit, in the form of a personal loan to or for any director or executive officer of the Issuer.

(uu) The section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations — Critical Accounting Policies" in the Registration Statement, the Prospectus and the Disclosure Package accurately and fully describes accounting policies which the Issuer believes are the most important in the portrayal of the financial condition and results of operations of the Issuer and its consolidated subsidiaries and which require management's most difficult, subjective or complex judgments.

(vv) Neither the Issuer nor any of its affiliates has, prior to the date hereof, made any offer or sale of any securities which could be "integrated" for purposes of the Securities Act or the rules and regulations promulgated thereunder with the offer and sale of the Shares pursuant to the Registration Statement. Except as disclosed in the Registration Statement, the Prospectus and the Disclosure Package, neither the Issuer nor any of its affiliates has sold or issued any security during the six-month period preceding the date of the Prospectus, including but not limited to any sales pursuant to Rule 144A or Regulation D or S under the Securities Act, other than shares of Common Stock issued pursuant to employee benefit plans, qualified stock option plans or employee compensation plans, or pursuant to outstanding options, rights or warrants.

(ww) From the filing of the Registration Statement with the Commission through the date hereof, the Issuer has been and is an "emerging growth company," as defined in Section 2(a) of the Securities Act (an "Emerging Growth Company").

(xx) The Issuer (i) has not engaged in any Testing-the-Waters Communication and (ii) has not authorized anyone to engage in Testing-the-Waters Communications. The Issuer has not distributed any Written Testing-the-Waters Communications (as defined herein). "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.

2. PURCHASE, SALE AND DELIVERY OF THE FIRM SECURITIES

(a) On the basis of the representations, warranties and covenants herein contained, and subject to the conditions herein set forth, the Issuer agrees to issue and sell to the Underwriters and each Underwriter agrees, severally and not jointly, to purchase, at a price of \$0.893 per share, the number of Firm Securities set forth opposite the name of each Underwriter in Schedule I hereof, subject to adjustments in accordance with Section 9 hereof.

(b) Payment for the Firm Securities to be sold hereunder is to be made in New York Clearing House by wire transfer of immediately available funds or by certified or official bank check or checks payable in New York Clearing House (same day) funds drawn to the order of the Issuer, against delivery of certificates therefor to the Representative for the several accounts of the Underwriters. Such payment and delivery are to be made through the facilities of the Depository Trust Company ("DTC"), New York, New York at 10:00 a.m., New York time, on the second business day after the date of this Agreement or at such other time and date thereafter as you and the Issuer shall agree upon, such time and date being herein referred to as the "Closing Date." As used herein, "business day" means a day on which the New York Stock Exchange is open for trading and on which banks in New York are open for business and are not permitted by law or executive order to be closed.

(c) In addition, on the basis of the representations and warranties herein contained and subject to the terms and conditions herein set forth, the Issuer hereby grants an option to the several Underwriters to purchase the Option Securities at the price per share as set forth in the first paragraph of this Section 2 less an amount per share equal to any dividend or distribution declared by the Issuer during the Option Term and payable on the Firm Securities but not payable on the Option Securities. The option granted hereby may be exercised in whole or in part, once or on multiple occasions, within 30 days after the date of this Agreement (the "Option Term") by written notice from the Representative of the several Underwriters, to the Issuer setting forth the number of Option Securities as to which the several Underwriters are exercising the option, the names and denominations in which the Option Securities are to be registered and the time and date at which certificates for such Option Securities are to be delivered. The time and date at which certificates for such Option Securities are to be delivered shall be determined by the Representative but shall not be earlier than three nor later than 10 full business days after the exercise of such option, nor in any event prior to the Closing Date (such time and date being herein referred to as an "Option Closing Date"). If the date of exercise of the option is three or more days before the Closing Date, the notice of exercise shall set the Closing Date as the Option Closing Date. The number of Option Securities to be purchased by each Underwriter shall be in the same proportion to the total number of Option Securities being purchased as the number of Firm Securities being purchased by such Underwriter bears to the total number of Firm Securities, adjusted by you in such manner as to avoid fractional shares. You, as the Representative of the several Underwriters, may cancel such option at any time prior to its expiration by giving written notice of such cancellation to the Issuer. To the extent, if any, that the option is exercised, payment for the Option Securities shall be made on an Option Closing Date in Federal (same day funds) through the facilities of the DTC in New York, New York drawn to the order of the Issuer.

3. OFFERING BY THE UNDERWRITERS.

It is understood that the several Underwriters are to make a public offering of the Firm Securities as soon as the Representative deems it advisable to do so. The Firm Securities are to be initially offered to the public at the public offering price set forth in the Prospectus. To the extent, if at all, that any Option Securities are purchased pursuant to Section 2 hereof, the Underwriters will offer them to the public on the foregoing terms.

It is further understood that you will act as the Representative for the Underwriters in the offering and sale of the Shares in accordance with a Master Agreement Among Underwriters entered into by you and the several other Underwriters.

4. COVENANTS.

(a) The Issuer covenants and agrees with the several Underwriters that it will (i) prepare and timely file with the Commission under Rule 424(b) of the Rules and Regulations a Prospectus in a form approved by the Representative containing information previously omitted at the time of effectiveness of the Registration Statement in reliance on Rule 430B of the Rules and Regulations; (ii) not file any amendment to the Registration Statement or supplement to the Prospectus, any Preliminary Prospectus or any Issuer Free Writing Prospectus of which the Representative shall not previously have been advised and furnished with a copy or to which the Representative shall have reasonably objected in writing or which is not in compliance with the Rules and Regulations; and (iii) file on a timely basis all reports and any definitive proxy or information statements required to be filed by the Issuer with the Commission subsequent to the date of the Prospectus and prior to the termination of the offering of the Shares by the Underwriters.

(b) The Issuer has not distributed and, without the prior consent of the Representative, it will not distribute any prospectus or other written offering material (including, without limitation, any offer relating to the Shares that would constitute a Free Writing Prospectus) in connection with the offering and sale of the Shares, other than the materials referred to in Section 1(a). Each Underwriter represents and agrees that it has not made and, without the prior consent of the Issuer and the Representative, it will not make, any offer relating to the Shares that would constitute an Issuer Free Writing Prospectus. Any such Issuer Free Writing Prospectus the use of which has been consented to by the Issuer and the Representative is listed on Schedule III hereto. The Issuer 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 Issuer 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. The Issuer 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, any Preliminary Prospectus or the Prospectus or would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in light of the circumstances then prevailing, not misleading, the Issuer will give prompt notice thereof to the Representative and, if requested by the Representative, 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.

(c) The Issuer will not take, directly or indirectly, any action designed to cause or result in, or that has constituted or might reasonably be expected to constitute, the stabilization or manipulation of the price of any securities of the Issuer.

(d) The Issuer will advise the Representative promptly (i) when any post-effective amendment to the Registration Statement shall become effective; (ii) of receipt of any comments from the Commission; (iii) of any request of the Commission for amendment of the Registration Statement or for supplement to the Prospectus or for any additional information; and (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or the use of the Prospectus or of the institution of any proceedings for that purpose. The Issuer will use commercially reasonable efforts to prevent the issuance of any such stop order preventing or suspending the use of the Prospectus and to obtain as soon as possible the lifting thereof, if issued.

(e) The Issuer will cooperate with the Representative in endeavoring to qualify the Shares for sale under the securities laws of such jurisdictions as the Representative may reasonably have designated in writing and will make such applications, file such documents and furnish such information as may be reasonably required for that purpose, provided the Issuer shall not be required to qualify as a foreign corporation or to file a general consent to service of process in any jurisdiction where it is not now so qualified or required to file such a consent. The Issuer will, from time to time, prepare and file such statements, reports and other documents as are or may be required to continue such qualifications in effect for so long a period as the Representative may reasonably request for distribution of the Shares.

(f) The Issuer will deliver to, or upon the order of, the Representative, from time to time, as many copies of any Preliminary Prospectus and any Issuer Free Writing Prospectus as the Representative may reasonably request. The Issuer will deliver to, or upon the order of, the Representative during the period when delivery of a Prospectus is required under the Securities Act, as many copies of the Prospectus in final form, or as thereafter amended or supplemented, as the Representative may reasonably request. At the request of the Representative, the Issuer will deliver to the Representative at or before the Closing Date, four signed copies of the Registration Statement and all amendments thereto including all exhibits filed therewith, and will deliver to the Representative such number of copies of the Registration Statement (including such number of copies of the exhibits filed therewith that may reasonably be requested) and of all amendments thereto, as the Representative may reasonably request.

(g) The Issuer will comply with the Securities Act and the Rules and Regulations, and the Exchange Act and the rules and regulations of the Commission promulgated thereunder, so as to permit the completion of the distribution of the Shares as contemplated in this Agreement and the Prospectus. If during the period in which a prospectus is required by law to be delivered by an Underwriter or dealer any event shall occur as a result of which, in the judgment of the Issuer or in the reasonable opinion of the Underwriters, it becomes necessary to amend or supplement the Prospectus in order to make the statements therein, in the light of the

circumstances existing at the time the Prospectus is delivered to a purchaser, not misleading, or, if it is necessary at any time to amend or supplement the Prospectus to comply with any law, the Issuer promptly will prepare and file with the Commission, after providing the Representative with a reasonable opportunity to review, an appropriate amendment to the Registration Statement or supplement to the Prospectus so that the Prospectus as so amended or supplemented will not, in the light of the circumstances when it is so delivered, be misleading, or so that the Prospectus will comply with the law.

(h) If at any time following the distribution of any Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such Written Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Issuer will promptly notify the Representative and will promptly amend or supplement, at its own expense, such Written Testing-the-Waters Communication to eliminate or correct such untrue statement or omission.

(i) The Issuer will make generally available to its security holders, as soon as it is practicable to do so, but in any event not later than 15 months after the effective date of the Registration Statement, an earnings statement (which need not be audited), covering a period of at least 12 consecutive months beginning with the first fiscal quarter of the Issuer occurring after the “effective date” of the Registration Statement (as defined in Rule 158), which earnings statement shall satisfy the requirements of Section 11(a) of the Securities Act and Rule 158 of the Rules and Regulations and will advise you in writing when such statement has been so made available.

(j) Prior to the Closing Date, the Issuer will furnish to the Underwriters, as soon as they have been prepared by or are available to the Issuer, a copy of any unaudited interim financial statements of the Issuer for any period subsequent to the period covered by the most recent financial statements appearing in the Registration Statement and the Prospectus.

(k) The Issuer covenants and agrees that no offering, sale, short sale or other disposition of any shares of Common Stock of the Issuer or other securities convertible into or exchangeable or exercisable for shares of Common Stock or derivative of Common Stock (or agreement for such) will be made for a period of 90 days after the date of this Agreement, directly or indirectly, by the Issuer otherwise than hereunder or with the prior written consent of the Representative (including, without limitation, any sales or dispositions pursuant to the Common Stock Sales Agreement, dated as of January 23, 2019, by and between the Issuer and H.C. Wainwright & Co., LLC, or any similar arrangement); provided, that this provision will not (i) restrict the Issuer from awarding options to purchase shares of its Common Stock pursuant to employee benefit plans as described in the Registration Statement, the Prospectus and the Disclosure Package, (ii) apply to the Shares to be sold hereunder, (iii) apply to the issuance of shares of Common Stock of the Issuer or securities convertible or exercisable or exchangeable for shares of Common Stock of the Issuer pursuant to the exercise or conversion of warrants, options, or other convertible or exchangeable securities, in each case which are outstanding on the date hereof and described in the Prospectus and the Disclosure Package, (iv) apply to

Common Stock of the Issuer to one or more counterparties in connection with the consummation, by the Issuer, of a strategic partnership, joint venture, collaboration or acquisition or license of any business products or technology; *provided that* with respect to clause (iv), the aggregate number of shares of Common Stock issuable shall not exceed one percent (1%) of the outstanding Common Stock immediately following the Closing Date; *provided further that* in the case of clauses (i), (iii) and (iv) each recipient of such securities shall agree to be subject to the transfer restrictions contained in the Lock-Up Agreements (as defined below) with respect to any such securities for the remainder of the restricted period, as described therein and shall deliver to the Representative such Lock-Up Agreement prior to such issuance.

(l) The Issuer will use commercially reasonable efforts to list, subject to notice of issuance, the Shares on The Nasdaq Stock Market.

(m) The Issuer has caused each of the persons listed on Schedule II hereto to furnish to you, on or prior to the date of this agreement, a letter or letters, substantially in the form of Exhibit A hereto, pursuant to which each such person shall agree not to offer, sell, sell short or otherwise dispose of any shares of Common Stock of the Issuer or other capital stock of the Issuer, or any other securities convertible, exchangeable or exercisable for shares of Common Stock or derivative of Common Stock owned by such person or request the registration for the offer or sale of any of the foregoing (or as to which such person has the right to direct the disposition of) for a period of 90 days after the date of this Agreement, directly or indirectly, except with the prior written consent of the Representative ("Lockup Agreements").

(n) Prior to the Closing Date, the Issuer will issue no press release or other communications directly or indirectly and hold no press conference with respect to the Issuer, the condition, financial or otherwise, or the earnings, business affairs or business prospects of any of them, or the offering of the Shares without the prior written consent of the Representative unless in the judgment of the Issuer and its counsel, and after notification to the Representative, such press release or communication is required by law.

(o) The Issuer shall apply the net proceeds of its sale of the Shares in all material respects as described under the heading "Use of Proceeds" in the Registration Statement, the Prospectus and the Disclosure Package.

(p) The Issuer shall not invest, or otherwise use the proceeds received by the Issuer from its sale of the Shares in such a manner as would require the Issuer to register as an investment company under the 1940 Act.

(q) The Issuer will maintain a transfer agent and, if necessary under the jurisdiction of incorporation of the Issuer, a registrar for the Common Stock.

5. COSTS AND EXPENSES.

The Issuer will pay all costs, expenses and fees incident to the performance of the obligations of the Issuer under this Agreement (or reimburse if paid by the Representative), including, without limiting the generality of the foregoing, the following: (i) accounting fees of the Issuer; (ii) the fees and disbursements of counsel for the Issuer; (iii) the cost of printing and

delivering to, or as requested by, the Underwriters copies of the Registration Statement, any Preliminary Prospectuses, any Issuer Free Writing Prospectus, the Prospectus, the Underwriters' Selling Memorandum and the Underwriters' Invitation Letter, if any, the Listing Application, the Blue Sky Survey and any supplements or amendments thereto; (iv) the filing fees of the Commission; (v) the filing fees and expenses (including reasonable legal fees and disbursements) incident to securing any required review by FINRA of the terms of the sale of the Shares; (vi) the Listing Fee of The Nasdaq Stock Market; (vii) the expenses, including the fees and disbursements of counsel for the Underwriters incurred in connection with the qualification of the Shares under state securities or Blue Sky laws; and (viii) all other reasonable costs and out-of-pocket expenses of the Underwriters (including reasonable fees and disbursements of counsel) incident to the performance of its obligations hereunder not otherwise specifically provided for here, *provided* that the amount payable by the Issuer for the fees and disbursements of counsel to the Underwriters pursuant to subsections (v) and (viii) of this Section 5 shall not exceed \$85,000 in the aggregate, without the Issuer's prior written consent.

If this Agreement shall not be consummated because the conditions in Section 6 hereof are not satisfied, or because this Agreement is terminated by the Representative pursuant to Section 11 hereof, or by reason of any failure, refusal or inability on the part of the Issuer to perform any undertaking or satisfy any condition of this Agreement or to comply with any of the terms hereof on its part to be performed, unless such failure to satisfy said condition or to comply with said terms be due to the default or omission of any Underwriter, then the Issuer shall reimburse the several Underwriters for reasonable out-of-pocket expenses, including all fees and disbursements of counsel, reasonably incurred in connection with investigating, marketing and proposing to market the Shares or in contemplation of performing their obligations hereunder; but the Issuer shall not in any event be liable to any of the several Underwriters for damages on account of loss of anticipated profits from the sale by them of the Shares.

6. CONDITIONS OF OBLIGATIONS OF THE UNDERWRITERS.

The several obligations of the Underwriters to purchase the Firm Securities on the Closing Date and the Option Securities, if any, on each Option Closing Date are several and not joint, and are subject to the accuracy, as of the Closing Date and each Option Closing Date, if any, of the representations and warranties of the Issuer contained herein and to the performance by the Issuer of its covenants and obligations hereunder and to the following additional conditions:

(a) The Prospectus shall have been timely filed with the Commission in accordance with Section 4(a) hereof, and any and all filings required by Rule 424 and Rule 430B of the Rules and Regulations shall have been made, and any request of the Commission for additional information (to be included in the Registration Statement or otherwise) shall have been disclosed to the Representative and complied with to its reasonable satisfaction. All material required to be filed by the Issuer 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 Issuer 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., New York City time, on the date of this Agreement. No stop order suspending the

effectiveness of the Registration Statement, as amended from time to time, shall have been issued and no proceedings for that purpose shall have been taken or, to the knowledge of the Issuer, shall be contemplated by the Commission; no stop order suspending or preventing the use of any Preliminary Prospectus, the Prospectus or any Issuer Free Writing Prospectus shall have been initiated or, to the knowledge of the Issuer, shall be contemplated by the Commission; and all requests for additional information on the part of the Commission shall have been complied with to your reasonable satisfaction; and no injunction, restraining order, or order of any nature by a Federal or state court of competent jurisdiction shall have been issued as of the Closing Date or the Option Date, if any, which would prevent the issuance of the Shares.

(b) The Representative shall have received on the Closing Date and each Option Closing Date, if any, the opinions and negative assurance letter of Morgan, Lewis & Bockius LLP, counsel for the Issuer, dated the Closing Date or the Option Closing Date, if any, addressed to the Underwriters, substantially in the form and substance previously agreed upon by counsel for the Underwriters and the Issuer.

(c) The Representative shall have received from Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel for the Representative, a negative assurance statement, addressed to the Representative dated the Closing Date and the applicable Option Closing Date(s), if any, with respect to such matters as the Representative may reasonably require, and the Issuer shall have furnished or provided access to such counsel of such documents as they request for enabling them to pass upon such matters.

(d) The Representative shall have received, on each of the dates hereof, the Closing Date and the applicable Option Closing Date(s), if any, a letter dated the date hereof, the Closing Date or the Option Closing Date, if any, in form and substance satisfactory to you, of Ernst & Young LLP confirming that they are independent public accountants within the meaning of the Securities Act and the applicable published Rules and Regulations thereunder and the Exchange Act, and stating that in their opinion the financial statements and schedules examined by them and included in the Registration Statement comply in form in all material respects with the applicable accounting requirements of the Securities Act and the related published Rules and Regulations and the Exchange Act; and containing such other statements and information as is ordinarily included in accountants' "comfort letters" to Underwriters with respect to the financial statements and certain financial and statistical information contained in the Registration Statement and the Prospectus.

(e) The Representative shall have received on the Closing Date and the applicable Option Closing Date(s), if any, a certificate or certificates of the Issuer's Chief Executive Officer and Chief Financial Officer to the effect that, as of the Closing Date or the applicable Option Closing Date(s), if any, each of them severally represents as follows:

(i) The Registration Statement has become effective under the Securities Act and no stop order suspending the effectiveness of the Registration Statement has been issued, and no proceedings for such purpose have been taken or are, to his knowledge, contemplated by the Commission;

(ii) The representations and warranties of the Issuer contained in Section 1 hereof are true and correct as of the Closing Date or the applicable Option Closing Date(s), if any;

(iii) All filings required to have been made pursuant to Rules 424 or 430B under the Securities Act have been made;

(iv) They have carefully examined the Registration Statement and the Prospectus and, in their opinion, as of the effective date of the Registration Statement, the statements contained in the Registration Statement did not contain any untrue statement of a material fact, and such Registration Statement and Prospectus did not omit to state a material fact required to be stated therein or necessary in order to make the statements therein not misleading, and since the effective date of the Registration Statement, no event has occurred which should have been set forth in a supplement to or an amendment of the Prospectus which has not been so set forth in such supplement or amendment; and

(v) Since the respective dates as of which information is given in the Disclosure Package, (1) there has not been any material adverse change or any development involving a prospective change, which has had or is reasonably likely to have a Material Adverse Effect, whether or not arising in the ordinary course of business; (2) the Issuer has not sustained any 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 Disclosure Package, and (3) there shall not have been any change in the capital stock (other than issuances of capital stock in the ordinary course of business pursuant to the Issuer's employee benefit plans) or long-term debt of the Issuer.

(f) The Issuer shall have furnished to the Representative such further certificates and documents confirming the representations and warranties, covenants and conditions contained herein and related matters as the Representative may reasonably have requested.

(g) The Firm Securities and Option Securities, if any, shall have been approved for designation upon notice of issuance on The Nasdaq Stock Market.

(h) The Lockup Agreements described in Section 4 shall be in full force and effect.

(i) The Representative shall have received on the Closing Date and the applicable Option Closing Date(s), if any, opinions of Edward Lentz, Esq., Cooley LLP and Potter Anderson & Corroon LLP, each special counsel for the Issuer with respect to patent and proprietary rights, dated the Closing Date and the applicable Option Closing Date(s), if any, addressed to the Underwriters, substantially in the forms and substance previously agreed upon by counsel for the Underwriters and the Issuer.

(j) On the Firm Securities Closing Date, FINRA shall have confirmed that it has not raised any objection with respect to the fairness and reasonableness of the underwriting terms and agreements in connection with the offering of the Shares.

The opinions and certificates mentioned in this Agreement shall be deemed to be in compliance with the provisions hereof only if they are in all material respects satisfactory to the Representative and to Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel for the Representative.

If any of the conditions hereinabove provided for in this Section 6 shall not have been fulfilled when and as required by this Agreement to be fulfilled, the obligations of the Underwriters hereunder may be terminated by the Representative.

In such event, the Issuer and the Underwriters shall not be under any obligation to each other (except to the extent provided in Sections 5 and 8 hereof).

7. CONDITIONS OF THE OBLIGATIONS OF THE ISSUER

The obligations of the Issuer to sell and deliver the portion of the Shares required to be delivered as and when specified in this Agreement are subject to the conditions that at the Closing Date or the applicable Option Closing Date(s), if any, no stop order suspending the effectiveness of the Registration Statement shall have been issued and in effect or proceedings therefor initiated or threatened.

8. INDEMNIFICATION.

(a) The Issuer agrees:

(i) to indemnify and hold harmless each Underwriter and each person, if any, who controls such Underwriter within the meaning of Section 15 of the Securities Act, against any losses, claims, damages or liabilities to which such Underwriter or any such controlling person may become subject under the Securities Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions or proceedings in respect thereof) arise out of or are based upon (i) any untrue statement or alleged untrue statement of any material fact contained in (A) the Registration Statement, any Preliminary Prospectus, the Disclosure Package, the Prospectus or any amendment or supplement thereto, (B) any Issuer Free Writing Prospectus or any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Securities Act, (C) any Written Testing-the-Waters Communications or (D) any road show as defined in Rule 433(h) under the Act (a "road show"), (ii) the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, or (iii) any alleged act or failure to act by any Underwriter in connection with, or relating in any manner to, the Shares or the offering contemplated hereby, and which is included as part of or referred to in any loss, claim, damage, liability or action arising out of or based upon matters covered by clause (i) or (ii) above (provided, however, that the Issuer shall not be liable under this clause (iii) to the extent that it is determined in a final judgment by a court of competent jurisdiction that such loss, claim, damage, liability or action resulted directly from any such acts

or failures to act undertaken or omitted to be taken by such Underwriter through its gross negligence or willful misconduct) *provided, however*, that the Issuer will not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement, or omission or alleged omission made in the Registration Statement, any Preliminary Prospectus, the Disclosure Package, the Prospectus, or such amendment or supplement, any Issuer Free Writing Prospectus not included in the Disclosure Package, or any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Securities Act or any Written Testing-the-Waters Communication or any road show, in reliance upon and in conformity with written information furnished to the Issuer by or through the Representative specifically for use in the preparation thereof, such information being listed in Section 13 below.

(ii) to reimburse each Underwriter and each such controlling person upon demand for any legal or other out-of-pocket expenses reasonably incurred by such Underwriter or such controlling person in connection with investigating or defending any such loss, claim, damage or liability, action or proceeding or in responding to a subpoena or governmental inquiry related to the offering of the Shares, whether or not such Underwriter or controlling person is a party to any action or proceeding. In the event that it is finally judicially determined that the Underwriters were not entitled to receive payments for legal and other expenses pursuant to this subparagraph, the Underwriters will promptly return all sums that had been advanced pursuant hereto.

(b) Each Underwriter, severally and not jointly, will indemnify and hold harmless the Issuer, each of its directors, each of its officers who have signed the Registration Statement and each person, if any, who controls the Issuer within the meaning of Section 15 of the Securities Act, against any losses, claims, damages or liabilities to which the Issuer or any such director, officer or controlling person may become subject under the Securities Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions or proceedings in respect thereof) arise out of or are based upon (i) any untrue statement or alleged untrue statement of any material fact contained in the Registration Statement, any Preliminary Prospectus, the Disclosure Package, the Prospectus or any amendment or supplement thereto, in any Issuer Free Writing Prospectus not included in the Disclosure Package, in any Written Testing-the-Waters Communications or in any road show or (ii) the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; and will reimburse any legal or other expenses reasonably incurred by the Issuer or any such director, officer or controlling person in connection with investigating or defending any such loss, claim, damage, liability, action or proceeding; *provided, however*, that each Underwriter will be liable in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission has been made in the Registration Statement, any Preliminary Prospectus, the Disclosure Package, the Prospectus or any amendment or supplement thereto, or in any Issuer Free Writing Prospectus not included in the Disclosure Package, any Written Testing-the-Waters Communication or any road show in reliance upon and in conformity with written information furnished to the Issuer by or through the Representative specifically for use in the preparation thereof, such information being listed in Section 13 below.

(c) In case any proceeding (including any governmental investigation) shall be instituted involving any person in respect of which indemnity may be sought pursuant to this Section 8, such person (the "indemnified party") shall promptly notify the person against whom such indemnity may be sought (the "indemnifying party") in writing. No indemnification provided for in Section 8(a) or (b) shall be available to any party who shall fail to give notice as provided in this Subsection if the party to whom notice was not given was unaware of the proceeding to which such notice would have related and was materially prejudiced by the failure to give such notice, but the failure to give such notice shall not relieve the indemnifying party or parties from any liability which it or they may have to the indemnified party for contribution or otherwise than on account of the provisions of Section 8(a) or (b). In case any such proceeding shall be brought against any indemnified party and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel satisfactory to such indemnified party and shall pay as incurred the reasonable fees and disbursements of such counsel related to such proceeding. In any such proceeding, any indemnified party shall have the right to retain its own counsel at its own expense. Notwithstanding the foregoing, the indemnifying party shall pay as incurred (or within 30 days of presentation) the reasonable fees and expenses of the outside counsel retained by the indemnified party in the event (i) the indemnifying party and the indemnified party shall have mutually agreed to the retention of such counsel, (ii) the named parties to 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 or (iii) the indemnifying party shall have failed to assume the defense and employ counsel reasonably acceptable to the indemnified party within a reasonable period of time after notice of commencement of the action.

It is understood that the indemnifying party shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable fees and expenses of more than one separate firm (in addition to any local outside counsel) for all such indemnified parties. Such firm shall be designated in writing by you in the case of parties indemnified pursuant to Section 8(a) and by the Issuer in the case of parties indemnified pursuant to Section 8(b). The indemnifying party shall not be liable for any settlement of any proceeding effected without its written consent but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party from and against any loss or liability by reason of such settlement or judgment. In addition, the indemnifying party will not, without the prior written consent of the indemnified party, settle or compromise or consent to the entry of any judgment in any pending or threatened claim, action or proceeding of which indemnification may be sought hereunder (whether or not any indemnified party is an actual or potential party to such claim, action or proceeding) unless such settlement, compromise or consent includes an unconditional release of each indemnified party from all liability arising out of such claim, action or proceeding.

(d) If the indemnification provided for in this Section 8 is unavailable to or insufficient to hold harmless an indemnified party under Section 8(a) or (b) above in respect of any losses, claims, damages or liabilities (or actions or proceedings 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, claims, damages or liabilities (or actions or proceedings in respect thereof) in such proportion as is appropriate to reflect the relative benefits received by the Issuer 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 Issuer on the one hand and the Underwriters on the other in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities, (or actions or proceedings in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Issuer on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering (before deducting expenses) received by the Issuer 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 Issuer 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 Issuer and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Subsection 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 Subsection. The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions or proceedings in respect thereof) referred to above in this Subsection 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 Subsection, (i) no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions applicable to the Shares purchased by such Underwriter and (ii) 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 Subsection to contribute are several in proportion to their respective underwriting obligations and not joint.

(e) In any proceeding relating to the Registration Statement, any Preliminary Prospectus, the Disclosure Package, the Prospectus or any supplement or amendment thereto, or any Issuer Free Writing Prospectus not included in the Disclosure Package, each party against whom contribution may be sought under this Section 8 hereby consents to the jurisdiction of any court having jurisdiction over any other contributing party, agrees that process issuing from such court may be served upon him or it by any other contributing party and consents to the service of such process and agrees that any other contributing party may join him or it as an additional defendant in any such proceeding in which such other contributing party is a party.

(f) Any losses, claims, damages, liabilities or expenses for which an indemnified party is entitled to indemnification or contribution under this Section 8 shall be paid

by the indemnifying party to the indemnified party as such losses, claims, damages, liabilities or expenses are incurred. The indemnity and contribution agreements contained in this Section 8 and the representations and warranties of the Issuer set forth in this Agreement shall remain operative and in full force and effect, regardless of (i) any investigation made by or on behalf of any Underwriter or any person controlling any Underwriter, the Issuer, its directors or officers or any persons controlling the Issuer, (ii) acceptance of any Shares and payment therefor hereunder, and (iii) any termination of this Agreement. A successor to any Underwriter, or to the Issuer, its directors or officers, or any person controlling the Issuer, shall be entitled to the benefits of the indemnity, contribution and reimbursement agreements contained in this Section 8.

9. DEFAULT BY UNDERWRITERS.

If on the Closing Date or the applicable Option Closing Date(s), if any, any Underwriter shall fail to purchase and pay for the portion of the Shares which such Underwriter has agreed to purchase and pay for on such date (otherwise than by reason of any default on the part of the Issuer), you, as the Representative of the Underwriters, shall use your reasonable efforts to procure within 36 hours thereafter one or more of the other Underwriters, or any others, to purchase from the Issuer such amounts as may be agreed upon and upon the terms set forth herein, the Firm Securities or Option Securities, as the case may be, which the defaulting Underwriter or Underwriters failed to purchase. If during such 36 hours you, as such Representative, shall not have procured such other Underwriters, or any others, to purchase the Firm Securities or Option Securities, as the case may be, agreed to be purchased by the defaulting Underwriter or Underwriters, then (a) if the aggregate number of shares with respect to which such default shall occur does not exceed 10% of the Firm Securities or Option Securities, as the case may be, covered hereby, the other Underwriters shall be obligated, severally, in proportion to the respective numbers of Firm Securities or Option Securities, as the case may be, which they are obligated to purchase hereunder, to purchase the Firm Securities or Option Securities, as the case may be, which such defaulting Underwriter or Underwriters failed to purchase, or (b) if the aggregate number of shares of Firm Securities or Option Securities, as the case may be, with respect to which such default shall occur exceeds 10% of the Firm Securities or Option Securities, as the case may be, covered hereby, the Issuer or you as the Representative of the Underwriters will have the right to terminate this Agreement without liability on the part of the non-defaulting Underwriters or of the Issuer except to the extent provided in Section 8 hereof. In the event of a default by any Underwriter or Underwriters, as set forth in this Section 9, the Closing Date or applicable Option Closing Date(s), if any, may be postponed for such period, not exceeding seven days, as you, as Representative, may determine in order that the required changes in the Registration Statement or in the Prospectus or in any other documents or arrangements may be effected. The term "Underwriter" includes any person substituted for a defaulting Underwriter. Any action taken under this Section 9 shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

10. NOTICES.

All communications hereunder shall be in writing and, except as otherwise provided herein, will be mailed, delivered, or faxed and confirmed as follows:

if to the Underwriters, to
Oppenheimer & Co. Inc.
85 Broad Street
New York, New York 10004
Attention: General Counsel

with a copy (which shall not constitute notice) to:

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
666 Third Avenue
New York, New York 10017
Attention: Ivan K. Blumenthal
Fax: (212) 983-3115

if to the Issuer, to
Agile Therapeutics, Inc.
101 Poor Farm Road
Princeton, New Jersey 08540
Attention: Alfred Altomari
Chief Executive Officer
Fax: (609) 683-1855

with a copy (which shall not constitute notice) to:

Morgan, Lewis & Bockius LLP
1701 Market Street
Philadelphia, Pennsylvania 19103
Attention: Joanne Soslow
Fax: (215) 963-5001

11. TERMINATION.

(a) This Agreement may be terminated by you at any time prior to the Closing Date if any of the following has occurred: (i) since the respective dates as of which information is given in the Registration Statement and the Prospectus, any material adverse change or any development involving a prospective change, has had or is reasonably likely to have a Material Adverse Effect, (ii) any outbreak, attack, or escalation of hostilities or declaration of war, national emergency, act of terrorism or other national or international calamity or crisis or change in economic, financial or political conditions if the effect of such outbreak, escalation, declaration, emergency, calamity, crisis or change on the financial markets of the United States would, in the absolute discretion of the Representative make it impracticable or inadvisable to market the Shares or to enforce contracts for the sale of the Shares, (iii) suspension of trading in securities generally on the New York Stock Exchange or the American Stock Exchange or limitation on prices (other than limitations on hours or numbers of days of trading) for securities on either such Exchange, (iv) the enactment, publication, decree or other promulgation of any statute, regulation, rule or order of any court or other governmental authority which in your

opinion materially and adversely affects or is reasonably likely to materially and adversely affect the business or operations of the Issuer, (v) declaration of a banking moratorium by United States or New York State authorities, (vi) the suspension of trading of the Issuer's common stock by The Nasdaq Stock Market, the Commission, or any other governmental authority, or (vii) the taking of any action by any governmental body or agency in respect of its monetary or fiscal affairs which in your reasonable opinion has a material adverse effect on the securities markets in the United States; or

(b) as provided in Sections 6 and 9 of this Agreement.

12. SUCCESSORS.

This Agreement has been and is made solely for the benefit of the Issuer and Underwriters and their respective successors, executors, administrators, heirs and assigns, and the officers, directors and controlling persons referred to herein, and no other person will have any right or obligation hereunder. No purchaser of any of the Shares from any Underwriter shall be deemed a successor or assign merely because of such purchase.

13. INFORMATION PROVIDED BY UNDERWRITERS.

The Issuer and the Underwriters acknowledge and agree that the only information furnished or to be furnished by any Underwriter to the Issuer for inclusion in any Preliminary Prospectus, the Prospectus, any Issuer Free Writing Prospectus, Written Testing-the-Waters Communication, or road show or the Registration Statement consists of the information contained in the 4th, 10th and 11th paragraphs under the caption "Underwriting" in each of the Preliminary Prospectus and the Prospectus related to the compensation of the Underwriters and the stabilization activities of the Underwriters.

14. RESEARCH INDEPENDENCE.

In addition, the Issuer 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 and make statements or investment recommendations and/or publish research reports with respect to the Issuer and/or the offering that differ from the views of its investment bankers. The Issuer hereby waives and releases, to the fullest extent permitted by law, any claims that the Issuer 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 Issuer by such Underwriters' investment banking divisions. The Issuer 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 transactions for its own account or the account of its customers and hold long or short position in debt or equity securities of the companies which may be the subject to the transactions contemplated by this Agreement.

15. NO FIDUCIARY DUTY.

Notwithstanding any preexisting relationship, advisory or otherwise, between the parties or any oral representations or assurances previously or subsequently made by the underwriters, the Issuer acknowledges and agrees that:

- (a) nothing herein shall create a fiduciary or agency relationship between the Issuer and the Underwriters;
- (b) the Underwriters are not acting as advisors, expert or otherwise, to the Issuer in connection with this offering, sale of the Shares or any other services the Underwriters may be deemed to be providing hereunder, including, without limitation, with respect to the public offering price of the Shares;
- (c) the relationship between the Issuer and the Underwriters is entirely and solely commercial, based on arms-length negotiations;
- (d) any duties and obligations that the Underwriters may have to the Issuer shall be limited to those duties and obligations specifically stated herein; and
- (e) notwithstanding anything in this Underwriting Agreement to the contrary, the Issuer acknowledges that the Underwriters may have financial interests in the success of the Offering that are not limited to the difference between the price to the public and the purchase price paid to the Issuer by the Underwriters for the shares and the Underwriters have no obligation to disclose, or account to the Issuer for, any of such additional financial interests.

The Issuer hereby waives and releases, to the fullest extent permitted by law, any claims that the Issuer may have against the Underwriters with respect to any breach or alleged breach of fiduciary duty in connection with the transactions contemplated by this Agreement.

16. MISCELLANEOUS.

The reimbursement, indemnification and contribution agreements contained in this Agreement and the representations, warranties and covenants in this Agreement shall remain in full force and effect regardless of (a) any termination of this Agreement, (b) any investigation made by or on behalf of any Underwriter or controlling person thereof, or by or on behalf of the Issuer or its directors or officers and (c) delivery of and payment for the Shares under this Agreement.

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

This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York.

This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof.

This Agreement may only be amended or modified in writing, signed by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit.

[remainder of page intentionally blank]

If the foregoing letter is in accordance with your understanding of our agreement, please sign and return to us the enclosed duplicates hereof, whereupon it will become a binding agreement among the Issuer and the several Underwriters in accordance with its terms.

Very truly yours,

AGILE THERAPEUTICS, INC.

By /s/ Alfred Altomari
Alfred Altomari
Chief Executive Officer

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

OPPENHEIMER & CO. INC.

As the Representative of the several

Underwriters listed on Schedule I hereto

By: OPPENHEIMER & CO. INC.

By: /s/ Peter Bennett
Name: Peter Bennett
Title: Managing Director

[Signature Page to Underwriting Agreement]

Schedule I

SCHEDULE OF UNDERWRITERS

<u>Underwriter</u>	<u>Number of Firm Securities to be Purchased</u>
Oppenheimer & Co. Inc.	10,105,263
H.C. Wainwright & Co., LLC	2,526,316
Total	12,631,579

Schedule II

LIST OF PERSONS SUBJECT TO LOCK-UP

Directors

Alfred Altomari (CEO)
Seth H.Z. Fischer
John Hubbard
Abhijeet Lele
William T. McKee
Ajit S. Shetty
James P. Tursi

Officers

Scott M. Coiante
Geoffrey P. Gilmore
Robert Conway
Dennis P. Reilly

Schedule III

SCHEDULE OF ISSUER FREE WRITING PROSPECTUSES INCLUDED IN THE DISCLOSURE PACKAGE

None.

III-1

Schedule IV

INFORMATION INCLUDED IN THE DISCLOSURE PACKAGE

1. Public Offering Price: \$0.95
2. Number of Firm Securities: 12,631,579
3. Number of Option Securities Offered: 1,894,736

EXHIBIT A

FORM OF LOCK-UP AGREEMENT

, 2019

Oppenheimer & Co. Inc.
as Representative of the Several Underwriters
c/o Oppenheimer & Co. Inc.
85 Broad Street
New York, New York 10004

Re: Public Offering of Agile Therapeutics, Inc.

Ladies and Gentlemen:

The undersigned, a holder of common stock, par value \$0.0001 per share ("**Common Stock**"), or rights to acquire Common Stock, of Agile Therapeutics, Inc. (the "**Company**"), understands that Oppenheimer & Co. Inc. (the "**Representative**"), as Representative of the several Underwriters, proposes to enter into an Underwriting Agreement (the "**Underwriting Agreement**") with the Company, providing for the public offering (the "**Offering**") by the several underwriters named in Schedule I to the Underwriting Agreement (the "**Underwriters**"), of Common Stock (the "**Securities**") pursuant to registration statement on Form S-3 (File No. 333-228149).

In consideration of the Representative's agreement to enter into the Underwriting Agreement and to proceed with the Offering, and for other good and valuable consideration, receipt of which is hereby acknowledged, the undersigned hereby agrees for the benefit of the Company, the Representative and the other Underwriters that, without the prior written consent of the Representative on behalf of the Underwriters, the undersigned will not, from the date hereof through the period ending 90 days (the "**Lock-Up Period**") following the date of the Underwriting Agreement, directly or indirectly, unless otherwise provided herein, (1) offer, pledge, assign, encumber, announce the intention to 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, or otherwise transfer or dispose of, any Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock owned either of record or beneficially (as defined in the Securities Exchange Act of 1934, as amended (the "**Exchange Act**")) by the undersigned on the date hereof or hereafter acquired (the "**Lock-Up Securities**") or (2) enter into any swap, hedge or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Lock-Up Securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise, or publicly announce an intention to do any of the foregoing. In addition, the undersigned agrees that, without the prior written consent of the Representative, it will not, during the Lock-Up Period, 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. The foregoing shall not apply to (a) transactions relating to Lock-Up Securities acquired in open market transactions after the completion of the Offering; provided that no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made in connection with subsequent sales of Lock-Up Securities acquired in such open market transactions, (b) the Lock-Up Securities to be transferred as a bona fide gift or gifts (provided that any donee thereof agrees in writing to be bound by the terms hereof), (c) the transfer of the Lock-Up Securities (1) to any immediate family member (provided that any such recipient agrees in writing to be bound by the terms hereof) or to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned, (2) to a charity or educational institution, (3) if the undersigned is a corporation, partnership, limited liability company, trust or other business entity (A) to another corporation, partnership, limited liability company, trust or other business entity that is a direct or indirect affiliate (as defined in Rule 405 promulgated under the Securities Act of 1933, as amended) of the undersigned or (B) to limited partners, limited liability company members or stockholders of the undersigned (provided that any such transfer in this clause (3) shall not involve a disposition for value), (4) if the undersigned is a trust, to the beneficiary of such trust, (5) by testate succession or intestate succession, (6) by operation of law or by an order of a court or regulatory agency, such as pursuant to a qualified domestic order or in connection with a divorce settlement, (7) pursuant to any contract, instruction or plan that satisfies all of the requirements of Rule 10b5-1 under the Exchange Act established prior to the date of this Letter Agreement, or (8) to a nominee or custodian of a person or entity to whom a disposition or transfer would be permissible under clauses (1)-(7) above; *provided*, in the case of clauses (1)-(8), that the transferee agrees in writing with the Underwriters and the Company to be bound by the terms of this Letter Agreement, (d) transfers of Common Stock or Company stock options to the Company, and (e) the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of Common Stock, *provided* that such plan does not provide for the transfer of Common Stock during the Lock-Up Period and no public announcement or filing under the Exchange Act regarding the establishment of such plan is required or voluntarily made by or on behalf of the undersigned or the Company.

Additionally, and subject to the conditions in this paragraph, the undersigned may also transfer the Lock-Up Securities without the prior written consent of the Representative if any such transfers are made by the undersigned: (i) to satisfy tax withholding obligations of the undersigned in connection with the vesting or exercise of equity awards outstanding as of the date of the preliminary prospectus by the undersigned pursuant to the Company's equity compensation plans and arrangements; or (ii) pursuant to the conversion or sale of, or an offer to purchase, all or substantially all of the outstanding Common Stock, whether pursuant to a merger, tender offer or otherwise; provided, however, that in the case of any transfer described in clause (i) of this paragraph, it shall be a condition to the transfer that if the undersigned is required to file a report under Section 16(a), the undersigned shall include a statement in such report to the effect that such transfer is being made for tax withholding obligations; and provided further that in the case of any conversion or sale described in clause (ii) of this paragraph, in the event that such transaction is abandoned, the Lock-Up Securities shall remain subject to the restrictions hereunder.

In furtherance of the foregoing, the Company, and any duly appointed transfer agent for the registration or transfer of the Lock-Up Securities described herein, are hereby authorized to decline to make any transfer of securities if such transfer would constitute a violation or breach of this Letter Agreement.

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this Letter Agreement. All authority herein conferred or agreed to be conferred and any obligations of the undersigned shall be binding upon the successors, assigns, heirs or personal representatives of the undersigned.

No provision in this Letter Agreement shall be deemed to restrict or prohibit the exercise, exchange or conversion by the undersigned of any securities exercisable or exchangeable for or convertible into shares of Common Stock, as applicable; provided that (i) no filing under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of shares of Common Stock (other than for tax withholding obligations as provided herein) shall be required or shall be voluntarily made and (ii) the undersigned does not transfer the shares of Common Stock acquired on such exercise, exchange or conversion during the Restricted Period, unless otherwise permitted pursuant to the terms of this Letter Agreement.

The undersigned understands that if, (i) the Underwriting Agreement does not become effective by September 30, 2019, (ii) the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Securities to be sold thereunder, or (iii) the Company notifies the Representative that it does not intend to proceed with the Offering, the undersigned shall be released from all obligations under this Letter Agreement.

The undersigned, whether or not participating in the Offering, understands that the Representative is entering into the Underwriting Agreement and that the Underwriters are proceeding with the Offering in reliance upon this Letter Agreement.

[Signature page follows.]

This Letter Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflict of laws principles thereof (other than New York General Obligations Law § 5-1401).

Very truly yours,

By:

Name:

Title:

A-4

August 2, 2019

Agile Therapeutics, Inc.
101 Poor Farm Road
Princeton, NJ 08540

RE: Agile Therapeutics, Inc. Registration Statement on Form S-3 (File No. 333-228149)

Ladies and Gentlemen:

We have acted as counsel to Agile Therapeutics, Inc., a Delaware corporation (the "Company"), in connection with the offering by the Company of up to 14,526,315 shares of the Company's common stock, par value \$0.0001 per share (the "Shares"), including up to 1,894,736 shares that may be sold pursuant to the exercise of an option by the underwriters, pursuant to the Registration Statement on Form S-3 (File No. 333-228149), filed with the Securities and Exchange Commission (the "SEC") under the Securities Act of 1933, as amended (the "Act"), on November 2, 2018, which was declared effective by the SEC on November 14, 2018 (the "Registration Statement"), the related base prospectus, dated November 14, 2018 (the "Base Prospectus"), and the preliminary prospectus supplement, dated August 1, 2019 (the "Preliminary Prospectus Supplement") and together with the Base Prospectus, the "Prospectus"), filed with the SEC pursuant to Rule 424(b) under the Act, and an underwriting agreement, dated August 2, 2019, by and between the Company and Oppenheimer & Co. Inc., as representative of the several underwriters named therein (the "Underwriting Agreement").

In connection with this opinion letter, we have examined the Registration Statement, the Prospectus, the Underwriting Agreement, and originals, or copies certified or otherwise identified to our satisfaction, of the Amended and Restated Certificate of Incorporation and the Amended and Restated Bylaws of the Company, and such other documents, records and other instruments as we have deemed appropriate for purposes of the opinion set forth herein.

We have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of the documents submitted to us as originals, the conformity with the originals of all documents submitted to us as certified, facsimile or photostatic copies and the authenticity of the originals of all documents submitted to us as copies.

Based upon the foregoing, we are of the opinion that the Shares have been duly authorized by the Company and, when issued and sold by the Company and delivered by the Company against receipt of the purchase price therefor, in the manner contemplated by the Underwriting Agreement, will be validly issued, fully paid and non-assessable.

The opinions expressed herein are limited to Delaware General Corporation Law.

We hereby consent to the use of this opinion as Exhibit 5.1 to the Registration Statement and to the reference to us under the caption "Legal Matters" in the prospectus included in the Registration Statement. In giving such consent, we do not hereby admit that we are acting within the category of persons whose consent is required under Section 7 of the Act or the rules or regulations of the SEC thereunder.

Very truly yours,

/s/ MORGAN, LEWIS & BOCKIUS LLP

Agile Therapeutics Announces Proposed Underwritten Public Offering of Common Stock

PRINCETON, N.J., August 1, 2019 — Agile Therapeutics, Inc. (Nasdaq: AGRX), a women's healthcare company, today announced that it intends to offer and sell shares of its common stock in an underwritten public offering. All shares being offered are to be sold by Agile Therapeutics. Agile Therapeutics intends to grant the underwriters a 30-day option to purchase an additional fifteen percent of the shares of common stock offered in the public offering. The proposed offering is subject to market and other conditions, and there can be no assurances as to whether or when the offering may be completed, or as to the actual size or terms of the offering.

Oppenheimer & Co., Inc. is acting as the sole book-running manager for the offering. H.C. Wainwright & Co., LLC is acting as lead manager for the offering.

The shares of common stock described above are being offered by Agile Therapeutics pursuant to its shelf registration statement on Form S-3 previously filed and declared effective by the Securities and Exchange Commission. The offering is being made only by means of a preliminary prospectus supplement and the accompanying prospectus, copies of which may be obtained, when available, from Oppenheimer & Co., Inc., Attention: Syndicate Prospectus Department, 85 Broad St., 26th Floor, New York, NY 10004, by telephone at (212) 667-8055 or by email at EquityProspectus@opco.com.

Before investing in the offering, you should read in their entirety the prospectus supplement and accompanying prospectus and the other documents that Agile Therapeutics has filed with the Securities and Exchange Commission that are incorporated by reference in the prospectus supplement and the accompanying prospectus, which provide more information about Agile Therapeutics and the offering.

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 Agile Therapeutics, Inc.

Agile Therapeutics is a forward-thinking women's healthcare company dedicated to fulfilling the unmet health needs of today's women. Our product candidates are designed to provide women with contraceptive options that offer freedom from taking a daily pill, without committing to a longer-acting method. Our lead product candidate, Twirla[®], (ethinyl estradiol and levonorgestrel transdermal system), also known as AG200-15, is an investigational low-dose, non-daily prescription contraceptive. Twirla is based on our proprietary transdermal patch technology, called Skinfusion[®], which is designed to allow drug delivery through the skin. For more information, please visit the company website at www.agiletherapeutics.com. The Company may occasionally disseminate material, nonpublic information on the Company's website.

Forward-Looking Statement

Certain information contained in this press release includes “forward-looking statements” within the meaning of The Private Securities Litigation Reform Act of 1995, including statements related to our public offering and potential market opportunity for our product candidates. We may, in some cases, use terms such as “predicts,” “believes,” “potential,” “continue,” “anticipates,” “estimates,” “expects,” “plans,” “intends,” “may,” “could,” “might,” “will,” “should” or other words that convey uncertainty of the future events or outcomes to identify these forward-looking statements. Our forward-looking statements are based on current expectations that involve risks, potential changes in circumstances, assumptions and uncertainties. Any or all of the forward-looking statements may turn out to be wrong, or be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties as a result of various important factors, including the uncertainties related to market conditions and the completion of the public offering on the anticipated terms or at all and such other factors. For a more detailed description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to our business in general, please refer to our prospectus supplement to be filed with the Securities and Exchange Commission (SEC) on August 1, 2019 under the heading “Risk Factors” and those documents incorporated by reference therein, which includes our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q. You are cautioned not to place undue reliance on these forward-looking statements, which are made only as of the date of this press release. We undertake no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

Source: Agile Therapeutics

Contact: Investor Relations 609-683-1880

Agile Therapeutics Announces Pricing of \$12 Million Underwritten Public Offering of Common Stock

PRINCETON, N.J., August 2, 2019 — Agile Therapeutics, Inc. (Nasdaq: AGRX), a women's healthcare company, today announced the pricing of its underwritten public offering of 12,631,579 shares of its common stock at a public offering price of \$0.95 per share. The gross proceeds from the offering, before deducting underwriting discounts and commissions and estimated offering expenses payable by Agile Therapeutics, are expected to be approximately \$12 million. In addition, Agile Therapeutics has granted the underwriters a 30-day option to purchase up to 1,894,736 additional shares of common stock at the public offering price, less the underwriting discounts and commissions. All shares in the offering will be sold by Agile Therapeutics.

Oppenheimer & Co. Inc. is acting as the sole book-running manager for the offering. H.C. Wainwright & Co., LLC is acting as lead manager for the offering.

The offering is expected to close on or about August 6, 2019, subject to customary closing conditions.

The shares of common stock described above are being offered by Agile Therapeutics pursuant to its shelf registration statement on Form S-3 previously filed and declared effective by the Securities and Exchange Commission. The offering is being made only by means of a prospectus supplement and the accompanying prospectus, copies of which may be obtained from Oppenheimer & Co. Inc., Attention: Syndicate Prospectus Department, 85 Broad St., 26th Floor, New York, NY 10004, by telephone at (212) 667-8055 or by email at EquityProspectus@opco.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 Agile Therapeutics, Inc.

Agile Therapeutics is a forward-thinking women's healthcare company dedicated to fulfilling the unmet health needs of today's women. Our product candidates are designed to provide women with contraceptive options that offer freedom from taking a daily pill, without committing to a longer-acting method. Our lead product candidate, Twirla[®], (ethinyl estradiol and levonorgestrel transdermal system), also known as AG200-15, is an investigational low-dose, non-daily prescription contraceptive. Twirla is based on our proprietary transdermal patch technology, called Skinfusion[®], which is designed to allow drug delivery through the skin. For more information, please visit the company website at www.agiletherapeutics.com. The Company may occasionally disseminate material, nonpublic information on the Company's website.

Forward-Looking Statement

Certain information contained in this press release includes “forward-looking statements” within the meaning of The Private Securities Litigation Reform Act of 1995, including statements related to our public offering and potential market opportunity for our product candidates. We may, in some cases, use terms such as “predicts,” “believes,” “potential,” “continue,” “anticipates,” “estimates,” “expects,” “plans,” “intends,” “may,” “could,” “might,” “will,” “should” or other words that convey uncertainty of the future events or outcomes to identify these forward-looking statements. Our forward-looking statements are based on current expectations that involve risks, potential changes in circumstances, assumptions and uncertainties. Any or all of the forward-looking statements may turn out to be wrong, or be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties as a result of various important factors, including the uncertainties related to market conditions and the completion of the public offering on the anticipated terms or at all and such other factors. For a more detailed description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to our business in general, please refer to our prospectus supplement filed with the Securities and Exchange Commission (SEC) on August 1, 2019 under the heading “Risk Factors” and those documents incorporated by reference therein, which includes our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q. You are cautioned not to place undue reliance on these forward-looking statements, which are made only as of the date of this press release. We undertake no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

Source: Agile Therapeutics

Contact: Investor Relations — 609-683-1880
