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

FORM 8-K

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

Date of Report (Date of earliest event reported): **March 28, 2019**

Aileron Therapeutics, Inc.
(Exact Name of Company as Specified in Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-38130
(Commission File Number)

13-4196017
(IRS Employer
Identification No.)

490 Arsenal Way
Watertown, MA
(Address of Principal Executive Offices)

02472
(Zip Code)

Registrant's telephone number, including area code: (617) 995-0900

Not applicable
(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 (see General Instruction A.2. below):

- 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))

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

Emerging growth company

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

Item 1.01 Entry into a Material Definitive Agreement

Securities Purchase Agreement

On March 28, 2019, Aileron Therapeutics, Inc., a Delaware corporation (the “Company”), entered into a securities purchase agreement (the “Securities Purchase Agreement”) with accredited investors (the “Investors”), pursuant to which the Company agreed to issue and sell to the Investors in a private placement an aggregate of (i) 11,838,582 units, consisting of 11,838,582 shares of the Company’s common stock, par value \$0.001 per share (the “Shares”), and associated warrants (the “Common Warrants”) to purchase an aggregate of 11,838,582 shares of common stock, for a combined price of \$2.01 per unit and (ii) 1,096,741 units, consisting of pre-funded warrants to purchase 1,096,741 shares of the Company’s common stock (the “Pre-Funded Warrants”) and associated Common Warrants to purchase 1,096,741 shares of common stock, for a combined price of \$2.01 per unit (the “Offering”). The Pre-Funded Warrants will be exercisable at an exercise price of \$0.01 per share and have no expiration. The Common Warrants will be exercisable at an exercise price of \$2.00 per share and expire five years from the date of issuance.

The Offering is expected to close on or about April 2, 2019, subject to the satisfaction of customary closing conditions. The Company expects to receive aggregate gross proceeds of approximately \$26.0 million, before deducting placement agent fees and offering expenses, and excluding the exercise of any warrants. The Company will pay placement agent fees of approximately \$1.7 million. William Blair & Company, L.L.C. is acting as sole placement agent in connection with the Offering.

The Company has granted the Investors indemnification rights with respect to its representations, warranties, covenants and agreements under the Securities Purchase Agreement.

Pre-Funded Warrants

The Pre-Funded Warrants to be issued will be exercisable for shares of the Company’s common stock at any time after the closing of the Offering at an exercise price of \$0.01 per share. The Pre-Funded Warrants will be exercisable by net exercise.

The form of Pre-Funded Warrant provides that the number of shares that may be exercised shall be limited to ensure that, following such exercise, the number of shares of common stock beneficially owned by the Investor does not exceed 4.999% of the total number of shares of common stock then issued and outstanding, unless the Investor either (i) waives the limitation or (ii) changes the limitation in which case the number of shares that may be exercised shall be limited to ensure that, following such exercise, the number of shares of common stock beneficially owned by the Investor does not exceed 9.999% of the total number of shares of common stock then issued and outstanding. The form of Pre-Funded Warrant also provides that the Company may not effect any exercise of the Pre-Funded Warrants, and the Pre-Funded Warrants may not be exercised with respect to any portion of the Pre-Funded Warrants, to the extent that such exercise would result in the Purchaser and its affiliates beneficially owning more than 19.99% of the outstanding Common Stock or outstanding voting power of the Company (including shares of Common Stock issuable upon exercise of the Common Warrants).

Common Warrants

The Common Warrants to be issued will be exercisable for shares of the Company's common stock at any time after the closing of the Offering and prior to the fifth anniversary of the closing at an exercise price of \$2.00 per share. The Common Warrants will be exercisable by net exercise.

The form of Common Warrant provides that the number of shares that may be exercised shall be limited to ensure that, following such exercise, the number of shares of common stock beneficially owned by the Investor does not exceed 4.999% of the total number of shares of common stock then issued and outstanding, unless the Investor either (i) waives the limitation or (ii) changes the limitation in which case the number of shares that may be exercised shall be limited to ensure that, following such exercise, the number of shares of common stock beneficially owned by the Investor does not exceed 9.999% of the total number of shares of common stock then issued and outstanding. The form of Common Warrant also provides that the Company may not effect any exercise of the Common Warrants, and the Common Warrants may not be exercised with respect to any portion of the Common Warrants, to the extent that such exercise would result in the Purchaser and its affiliates beneficially owning more than 19.99% of the outstanding Common Stock or outstanding voting power of the Company (including shares of Common Stock issuable upon exercise of the Common Warrants).

Registration Rights Agreement

Also on March 28, 2019, the Company entered into a registration rights agreement (the "Registration Rights Agreement") with the Investors, pursuant to which the Company agreed to register for resale the Shares, as well as the shares of the Company's common stock issuable upon exercise of the Pre-Funded Warrants and the Common Warrants (the "Warrant Shares"). Under the Registration Rights Agreement, the Company has agreed to file a registration statement covering the resale by the Investors of their Shares and Warrant Shares (together, the "Registrable Securities") within 30 days following the closing of the Offering. The Company has agreed to use commercially reasonable efforts to cause such registration statement to become effective and to keep such registration statement effective until the date the Shares and Warrant Shares covered by such registration statement have been sold or may be resold pursuant to Rule 144 without restriction. The Company has agreed to be responsible for all fees and expenses incurred in connection with the registration of the Registrable Securities.

In the event (i) the registration statement is not filed within 30 days following the closing date, (ii) the registration statement is not declared effective prior to the earlier of five trading days after the date which the Company is notified by the Securities and Exchange Commission (the "SEC") that the registration statement will not be reviewed by the SEC staff or is not subject to further comment by the SEC staff, (iii) the registration statement has not been declared effective within 90 days following the closing date, if the SEC staff determines not to review the registration statement, or within 120 days following the closing date if the SEC staff determines to review the registration statement or (iii) after the registration statement has been declared effective by the SEC, sales cannot be made pursuant to the registration statement for any reason other than certain specified reasons, then the Company has agreed to make pro rata payments to each Investor as liquidated damages in an amount equal to 1% of the aggregate amount invested by each such Investor in the Registrable Securities per 30-day period or pro rata for any portion thereof for each such month during which such event continues.

The Company has granted the Investors customary indemnification rights in connection with the registration statement. The Investors have also granted the Company customary indemnification rights in connection with the registration statement.

The foregoing descriptions of the Securities Purchase Agreement, the Pre-Funded Warrants, the Common Warrants and the Registration Rights Agreement do not purport to be complete and are qualified in their entirety by reference to the full text of the Securities Purchase Agreement, the Pre-Funded Warrant, the Common Warrant and the Registration Rights Agreement, copies of which are filed as Exhibits 10.1, 10.2, 10.3 and 10.4 hereto, respectively, and incorporated by reference herein.

The representations, warranties and covenants contained in the Securities Purchase Agreement, the Pre-Funded Warrants, the Common Warrants and the Registration Rights Agreement were made solely for the benefit of the parties thereto and may be subject to limitations agreed upon by the contracting parties. Accordingly, the Securities Purchase Agreement, the Pre-Funded Warrants, the Common Warrants and the Registration Rights Agreement are incorporated herein by reference only to provide

investors with information regarding the terms thereof and not to provide investors with any other factual information regarding the Company or its business, and should be read in conjunction with the disclosures in the Company's periodic reports and other filings with the SEC.

Item 3.02 Unregistered Sales of Equity Securities.

The information contained above in Item 1.01 is hereby incorporated by reference into this Item 3.02. Based in part upon the representations of the Investors in the Securities Purchase Agreement, the offering and sale of the Shares, Pre-Funded Warrants and Common Warrants will be exempt from registration under Section 4(a)(2) of the Securities Act of 1933, as amended (the "Securities Act"). The sales of the Shares, Pre-Funded Warrants and Common Warrants will not be registered under the Securities Act or any state securities laws and the Shares, Pre-Funded Warrants and Common Warrants may not be offered or sold in the United States absent registration with the SEC or an applicable exemption from the registration requirements. The sale of the securities will not involve a public offering and will be made without general solicitation or general advertising. The Investors represented that they are accredited investors, as such term is defined in Rule 501(a) of Regulation D under the Securities Act, and that they are acquiring the Shares, Pre-Funded Warrants and Common Warrants for investment purposes only and not with a view to any resale, distribution or other disposition of the Shares, Pre-Funded Warrants and Common Warrants in violation of the United States federal securities laws.

Item 8.01 Other Events.

On March 29, 2019, the Company issued a press release announcing the Offering. The full text of the press release issued in connection with this announcement is attached as Exhibit 99.1 to this Form 8-K and incorporated herein by reference.

Forward-Looking Statements

Any statements in this Form 8-K about the Company's future expectations, plans and prospects, including statements about the expected closing of the Offering, anticipated use of proceeds, future operations, and future expectations and plans and prospects for the Company and other statements containing the words "believes," "anticipates," "estimates," "expects," "intends," "plans," "predicts," "projects," "targets," "may," "potential," "will," "would," "could," "should," "continue," and similar expressions, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including whether the conditions for the closing of the private placement will be satisfied; Company's cash resources will be sufficient to fund its continuing operations for the periods and/or trials anticipated; whether results obtained in preclinical studies and clinical trials will be indicative of results obtained in future clinical trials; whether the Company's product candidates will advance through the clinical trial process on a timely basis, or at all; whether the results of such trials will warrant submission for approval from the United States Food and Drug Administration or equivalent foreign regulatory agencies; whether the Company's product candidates will receive approval from regulatory agencies on a timely basis or at all; whether, if product candidates obtain approval, they will be successfully distributed and marketed; whether the Company will be able to enter into additional collaborations; and other factors discussed in the "Risk Factors" section of the Company's Form 10-K for the year ended December 31, 2018, filed on March 29, 2019, and risks described in other filings that the Company may make with the Securities and Exchange Commission. Any forward-looking statements contained in this Form 8-K speak only as of the date hereof, and the Company specifically disclaims any obligation to update any forward-looking statement, whether because of new information, future events or otherwise.

Item 9.01 Financial Statements and Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
10.1	Securities Purchase Agreement, dated March 28, 2019, by and among the Company and the persons party thereto (the "Purchase Agreement")
10.2	Form of Pre-Funded Warrant to Purchase Common Stock to be issued pursuant to the Purchase Agreement
10.3	Form of Warrant to Purchase Common Stock to be issued pursuant to the Purchase Agreement
10.4	Registration Rights Agreement, dated March 28, 2019, by and among the Company and the persons party thereto
99.1	Press Release, dated March 29, 2019

SIGNATURES

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

Date: March 29, 2019

Aileron Therapeutics, Inc.

By: /s/ Donald V. Dougherty

Donald V. Dougherty

Chief Financial Officer

SECURITIES PURCHASE AGREEMENT

This SECURITIES PURCHASE AGREEMENT (this “Agreement”) is made and entered into as of March 28, 2019 by and among Aileron Therapeutics, Inc., a Delaware corporation (the “Company”), and the Investors identified on Exhibit A attached hereto (each an “Investor” and collectively the “Investors”).

RECITALS

A. The Company and the Investors are executing and delivering this Agreement in reliance upon the exemption from securities registration afforded by the provisions of Regulation D (“Regulation D”), as promulgated by the U.S. Securities and Exchange Commission (the “SEC”) under the Securities Act of 1933, as amended; and

B. The Investors wish to purchase from the Company, and the Company wishes to sell and issue to the Investors, upon the terms and subject to the conditions stated in this Agreement, (i) (A) shares (the “Shares”) of the Company’s Common Stock, par value \$0.001 per share (the “Common Stock”) and (B) warrants in the form attached hereto as Exhibit B to purchase Common Stock (each, a “Common Warrant” and collectively, the “Common Warrants”) and/or (ii) (A) pre-funded warrants in the form attached hereto as Exhibit C to purchase common stock (each, a “Pre-Funded Warrant” and collectively, the “Pre-Funded Warrants”) and (B) Common Warrants.

C. Contemporaneously with the sale of the Shares and Common Warrants, the parties hereto will execute and deliver a Registration Rights Agreement, in the form attached hereto as Exhibit D (the “Registration Rights Agreement”), pursuant to which the Company will agree to provide certain registration rights in respect of the Shares and the Common Warrant Shares (as defined below) under the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder, and applicable state securities laws.

In consideration of the mutual promises made herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Definitions. For the purposes of this Agreement, the following terms shall have the meanings set forth below:

“Affiliate” means, with respect to any Person, any other Person which directly or indirectly through one or more intermediaries Controls, is controlled by, or is under common Control with, such Person.

“Board” means the Company’s Board of Directors.

“Business Day” means a day, other than a Saturday or Sunday, on which banks in New York City are open for the general transaction of business.

“Closing” has the meaning set forth in Section 3.1.

“Closing Date” has the meaning set forth in Section 3.1.

“Closing Securities” means the Shares and the Common Warrants.

“Common Stock Equivalents” means any securities of the Company which would entitle the holder thereof to acquire at any time Common Stock, including without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“Common Warrants” has the meaning set forth in the recitals to this Agreement.

“Common Warrant Shares” means the shares of Common Stock issuable upon exercise of the Common Warrants.

“Company Intellectual Property” has the meaning set forth in Section 4.14.

“Company’s Knowledge” means the actual knowledge of the executive officers (as defined in Rule 405 under the 1933 Act) of the Company.

“Control” (including the terms “controlling”, “controlled by” or “under common control with”) means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

“Disclosure Schedules” has the meaning set forth in Section 4.

“Disclosure Time” means, (i) if this Agreement is signed on a day that is not a Trading Day or after 9:00 a.m. (New York City time) and before midnight (New York City time) on any Trading Day, 9:01 a.m. (New York City time) on the Trading Day immediately following the date hereof and (ii) if this Agreement is signed between midnight (New York City time) and 9:00 a.m. (New York City time) on any Trading Day, no later than 9:01 a.m. (New York City time) on the date hereof.

“Draft Form 10-K” means the draft of the Company’s Annual Report on Form 10-K for the year ended December 31, 2018 as provided to the Investors prior to the execution of this Agreement.

“Environmental Laws” has the meaning set forth in Section 4.15.

“Exempt Issuance” means the issuance of (a) Common Warrant Shares, (b) the Pre-Funded Warrants Shares, (c) Common Stock or Common Stock Equivalents pursuant to any Company stock-based compensation plans approved by the Company’ stockholders or in accordance with Nasdaq Stock Market Rule 5635(c)(4), (d) Common Stock upon the exercise or exchange of or conversion of any Common Stock Equivalents issued and outstanding on the date of this Agreement, (e) Common Stock or Common Stock Equivalents in connection with a transaction with an unaffiliated third party approved by the Board that includes a bona fide commercial relationship with the Company (including any joint venture, marketing or distribution arrangement, strategic alliance, collaboration agreement or corporate partnering,

intellectual property license agreement or acquisition agreement with the Company), (f) Common Stock or Common Stock Equivalents in connection with a merger with, or acquisition of, an unaffiliated third party approved by the Board and (g) shares of Common Stock or Common Stock Equivalents issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the Board.

“FDA” has the meaning set forth in Section 4.30.

“GAAP” has the meaning set forth in Section 4.17.

“Losses” has the meaning set forth in Section 8.2.

“Major Investor” means any Investor that, individually or together with such Investor’s Affiliates, has purchased Securities with an aggregate purchase price of at least \$5,000,000 under this Agreement.

“Material Adverse Effect” means a material adverse effect on (i) the assets, liabilities, results of operations, financial condition or business of the Company, (ii) the legality or enforceability of any of the Transaction Documents or Closing Securities or (iii) the ability of the Company to perform its obligations under the Transaction Documents.

“Material Contract” means any contract, instrument or other agreement to which the Company is a party or by which it is bound that has been filed or was required to have been filed as an exhibit to the SEC Filings pursuant to Item 601(b)(4) or Item 601(b)(10) of Regulation S-K.

“Nasdaq” means The Nasdaq Global Market.

“New Securities” means, collectively, equity securities of the Company, whether or not currently authorized, as well as options or warrants to purchase such equity securities, or securities of any type whatsoever that are convertible or exchangeable into or exercisable for such equity securities.

“Person” means an individual, corporation, partnership, limited liability company, trust, business trust, association, joint stock company, joint venture, sole proprietorship, unincorporated organization, governmental authority or any other form of entity not specifically listed herein.

“Placement Agent” means William Blair & Company, L.L.C.

“Pre-Funded Warrants” has the meaning set forth in the recitals to this Agreement.

“Pre-Funded Warrant Shares” means the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants.

“Press Release” has the meaning set forth in Section 9.7.

“Principal Trading Market” means the Trading Market on which the Common Stock is primarily listed on and quoted for trading, which, as of the date of this Agreement and the Closing Date, shall be The Nasdaq Global Market.

“Registration Rights Agreement” has the meaning set forth in the recitals to this Agreement.

“Required Investors” has the meaning set forth in the Registration Rights Agreement.

“Rule 144” means Rule 144 promulgated under the 1933 Act.

“SEC Filings” means (i) all documents and reports filed by the Company with the SEC pursuant to the 1934 Act, including pursuant to Section 13(a) or 15(d) thereof, since January 1, 2019 and (ii) the Draft Form 10-K.

“Securities” means the Shares, the Common Warrants, the Pre-Funded Warrants and the Warrant Shares.

“Shares” has the meaning set forth in the recitals to this Agreement.

“Short Sales” means all “short sales” as defined in Rule 200 of Regulation SHO under the 1934 Act (but shall not be deemed to include the location and/or reservation of borrowable shares of Common Stock).

“Subscription Amount” means, as to an Investor, the aggregate amount to be paid for the Closing Securities purchased hereunder as specified opposite such Investor’s name on Exhibit A attached hereto, under the column entitled “Aggregate Purchase Price of Closing Securities,” in U.S. Dollars and in immediately available funds.

“Trading Day” means (i) a day on which the Common Stock is listed or quoted and traded on its Principal Trading Market (other than the OTC Bulletin Board), or (ii) if the Common Stock is not listed on a Trading Market (other than the OTC Bulletin Board), a day on which the Common Stock is traded in the over-the-counter market, as reported by the OTC Bulletin Board, or (iii) if the Common Stock is not quoted on any Trading Market, a day on which the Common Stock is quoted in the over-the-counter market as reported in the “pink sheets” by Pink Sheets LLC (or any similar organization or agency succeeding to its functions of reporting prices); provided, that in the event that the Common Stock is not listed or quoted as set forth in (i), (ii) and (iii) hereof, then Trading Day shall mean a Business Day.

“Trading Market” means whichever of the New York Stock Exchange, the NYSE American (formerly the American Stock Exchange), the Nasdaq Global Select Market, the Nasdaq Global Market, the Nasdaq Capital Market or the OTC Bulletin Board on which the Common Stock is listed or quoted for trading on the date in question.

“Transfer Agent” means Computershare Trust Company, N.A.

“Transaction Documents” means this Agreement, the Common Warrants, the Pre-Funded Warrants and the Registration Rights Agreement.

“Warrants” means the Common Warrants and the Pre-Funded Warrants.

“Warrant Shares” means the Common Warrant Shares and the Pre-Funded Warrant Shares.

“1933 Act” means the Securities Act of 1933, as amended, or any successor statute, and the rules and regulations promulgated thereunder.

“1934 Act” means the Securities Exchange Act of 1934, as amended, or any successor statute, and the rules and regulations promulgated thereunder.

2. Purchase and Sale.

2.1. On the Closing Date, upon the terms and subject to the conditions set forth herein, the Company will issue and sell, and the Investors will purchase, severally and not jointly, (i) (A) the number of Shares set forth opposite the name of such Investor under the heading “Number of Shares to be Purchased” on Exhibit A attached hereto and (B) a Common Warrant to purchase one share of Common Stock for every one Share purchased at Closing and (ii) the number of Pre-Funded Warrants set forth opposite the name of such Investor under the heading “Number of Shares to be Purchased” on Exhibit A attached hereto, if any, and (ii) a Common Warrant to purchase one share of Common Stock for every one Pre-Funded Warrant purchased at Closing. The purchase price per Share and associated Common Warrant shall be \$2.01. The purchase price per Pre-Funded Warrant and associated Common Warrant shall be \$2.01.

2.2. The Pre-Funded Warrants shall have an exercise price equal to \$0.01 per Pre-Funded Warrant Share and shall be exercisable for one share of Common Stock (subject to adjustment as provided therein). The Common Warrants shall have an exercise price equal to \$2.00 per Common Warrant Share (subject to adjustment as provided therein).

3. Closing.

3.1. Upon the satisfaction of the conditions set forth in Section 6, the completion of the purchase and sale of the Closing Securities (the “Closing”) shall occur remotely via exchange of executed documents and funds on April 2, 2019 (the “Closing Date”).

3.2. On the Closing Date, each Investor shall deliver or cause to be delivered to the Company the Subscription Amount via wire transfer of immediately available funds pursuant to the wire instructions delivered to such Investor by the Company on or prior to the Closing Date.

3.3. At or before the Closing, the Company shall deliver or cause to be delivered

(a) to each Investor purchasing Shares the following:

(i) a number of Shares, in the form of a certificate registered in the name of the Investor or via book entry to the applicable account registered in the name of the

Investor at the Transfer Agent, as may be requested by the Investor, equal to the number of Shares set forth opposite the name of such Investor under the heading “Number of Shares to be Purchased” on Exhibit A attached hereto; and

(ii) a Common Warrant, registered in the name of such Investor, to purchase up to the number of Common Warrant Shares set forth opposite the name of such Investor under the heading “Number of Common Warrant Shares Underlying Common Warrant Purchased” on Exhibit A attached hereto.

(b) to each Investor purchasing Pre-Funded Warrants the following:

(i) a Pre-Funded Warrant, registered in the name of such Investor, to purchase up to the number of Pre-Funded Warrant Shares set forth opposite the name of such Investor under the heading “Number of Pre-Funded Warrant Shares Underlying Pre-Funded Warrant Purchased” on Exhibit A attached hereto; and

(ii) a Common Warrant, registered in the name of such Investor, to purchase up to the number of Common Warrant Shares set forth opposite the name of such Investor under the heading “Number of Common Warrant Shares Underlying Common Warrant Purchased” on Exhibit A attached hereto.

4. Representations and Warranties of the Company. The Company hereby represents and warrants to the Investors that, except (a) as set forth in the schedules delivered herewith (collectively, the “Disclosure Schedules”) and arranged in numbered and lettered sections corresponding to the numbered and lettered sections contained in this Section 4 or (b) or disclosed in the SEC Filings (excluding exhibits and information incorporated therein):

4.1. Organization, Good Standing and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation and has all requisite corporate power and authority to carry on its business as now conducted and to own or lease its properties. The Company is duly qualified to do business as a foreign corporation and is in good standing in each jurisdiction in which the conduct of its business or its ownership or leasing of property makes such qualification or leasing necessary unless the failure to so qualify has not had and would not reasonably be expected to have a Material Adverse Effect.

4.2. Authorization. The Company has the requisite corporate power and authority and has taken all requisite corporate action necessary for, and no further action on the part of the Company, its officers, directors and stockholders is necessary for, (i) the authorization, execution and delivery of the Transaction Documents, (ii) the authorization of the performance of all obligations of the Company hereunder or thereunder, and (iii) the authorization, issuance (or reservation for issuance) and delivery of the Closing Securities. The Transaction Documents constitute the legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their terms, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability, relating to or affecting creditors’ rights generally and to general equitable principles.

4.3. Capitalization. The Company is authorized under its Certificate of Incorporation to issue 150,000,000 shares of Common Stock. The Company's disclosure of its issued and outstanding capital stock in its most recent SEC Filing containing such disclosure was accurate in all material respects as of the date indicated in such SEC Filing. All of the issued and outstanding shares of the Company's capital stock have been duly authorized and validly issued and are fully paid and nonassessable; none of such shares were issued in violation of any pre-emptive rights; and such shares were issued in compliance in all material respects with applicable state and federal securities law and any rights of third parties. No Person is entitled to pre-emptive or similar statutory or contractual rights with respect to the issuance by the Company of any securities of the Company. There are no outstanding warrants, options, convertible securities or other rights, agreements or arrangements of any character under which the Company is or may be obligated to issue any equity securities of any kind and except as contemplated by this Agreement. Except for the Registration Rights Agreement, there are no voting agreements, buy-sell agreements, option or right of first purchase agreements or other agreements of any kind among the Company and any of the securityholders of the Company relating to the securities of the Company held by them. Except as provided in the Registration Rights Agreement, no Person has the right to require the Company to register any securities of the Company under the 1933 Act, whether on a demand basis or in connection with the registration of securities of the Company for its own account or for the account of any other Person.

The issuance and sale of the Closing Securities hereunder will not obligate the Company to issue shares of Common Stock or other securities to any other Person (other than the Investors) and will not result in the adjustment of the exercise, conversion, exchange or reset price of any outstanding security.

The Company does not have outstanding stockholder purchase rights or "poison pill" or any similar arrangement in effect giving any Person the right to purchase any equity interest in the Company upon the occurrence of certain events.

4.4. Valid Issuance. The Shares have been duly and validly authorized and, when issued and paid for pursuant to this Agreement, will be validly issued, fully paid and nonassessable, and shall be free and clear of all encumbrances and restrictions (other than those created by the Investors), except for restrictions on transfer set forth in the Transaction Documents or imposed by applicable securities laws. The Common Warrant Shares have been duly and validly authorized and reserved for issuance and, upon exercise of the Common Warrants in accordance with their terms, including the payment of any exercise price therefor, will be validly issued, fully paid and nonassessable and will be free and clear of all encumbrances and restrictions (other than those created by the Investors), except for restrictions on transfer set forth in the Transaction Documents or imposed by applicable securities laws. The Pre-Funded Warrant Shares have been duly and validly authorized and reserved for issuance and, upon exercise of the Pre-Funded Warrants in accordance with their terms, including the payment of any exercise price therefor, will be validly issued, fully paid and nonassessable and will be free and clear of all encumbrances and restrictions (other than those created by the Investors), except for restrictions on transfer set forth in the Transaction Documents or imposed by applicable securities laws.

4.5. Consents. Subject to the accuracy of the representations and warranties of each Investor set forth in Section 5 hereof, the execution, delivery and performance by the Company of the Transaction Documents and the offer, issuance and sale of the Closing Securities require no consent of, action by or in respect of, or filing with, any Person, governmental body, agency, or official other than filings that have been made pursuant to applicable state securities laws and post-sale filings pursuant to applicable state and federal securities laws and the rules and regulations of Nasdaq which the Company undertakes to file within the applicable time periods and other than the registration statement required to be filed by the Registration Rights Agreement. The Company has taken all action necessary to exempt (i) the issuance and sale of the Closing Securities and (ii) the other transactions contemplated by the Transaction Documents from the provisions of any stockholder rights plan or other “poison pill” arrangement, any anti-takeover, business combination or control share law or statute binding on the Company, including Section 203 of the General Corporation Law of the State of Delaware, or to which the Company or any of its assets and properties is subject that is or could reasonably be expected to become applicable to the Investors as a result of the transactions contemplated hereby, including without limitation, the issuance of the Closing Securities and the acquisition, ownership, disposition or voting of the Shares or the Warrant Shares by the Investors or the exercise of any right granted to the Investors pursuant to this Agreement or the other Transaction Documents.

4.6. Use of Proceeds. The net proceeds of the sale of the Closing Securities hereunder shall be used by the Company for working capital and general corporate purposes.

4.7. No Material Adverse Change. Since December 31, 2018, except as identified and described in the SEC Filings, there has not been:

(i) any change in the assets, liabilities, financial condition or operating results of the Company from that reflected in the financial statements included in the Draft Form 10-K as provided to Investors prior to execution of this Agreement, except for changes in the ordinary course of business which have not had and would not reasonably be expected to have a Material Adverse Effect, individually or in the aggregate;

(ii) any declaration or payment by the Company of any dividend, or any authorization or payment by the Company of any distribution, on any of the capital stock of the Company, or any redemption or repurchase by the Company of any securities of the Company;

(iii) any material damage, destruction or loss, whether or not covered by insurance, to any assets or properties of the Company;

(iv) any waiver, not in the ordinary course of business, by the Company of a material right or of a material debt owed to it;

(v) any satisfaction or discharge of any lien, claim or encumbrance or payment of any obligation by the Company, except in the ordinary course of business and which is not material to the assets, properties, financial condition, operating results or business of the Company (as such business is presently conducted);

- (vi) any change or amendment to the Company's Certificate of Incorporation or Bylaws, or material change to any material contract or arrangement by which the Company or is bound or to which any of its assets or properties is subject;
- (vii) any material labor difficulties or, to the Company's Knowledge, labor union organizing activities with respect to employees of the Company;
- (viii) any material transaction entered into by the Company other than in the ordinary course of business;
- (ix) the loss of the services of any key employee, or material change in the composition or duties of the senior management of the Company;
- (x) any transaction disclosable under Item 404 of Regulation S-K;
- (xi) the loss or, to the Company's Knowledge, threatened loss of any customer which has had or would reasonably be expected to have a Material Adverse Effect; or
- (xii) any other event or condition of any character that has had or would reasonably be expected to have a Material Adverse Effect.

4.8. SEC Filings.

(a) The Company has filed all reports, schedules, certifications, forms, statements and other documents (including all exhibits, amended and supplements thereto) required to be filed or furnished by the Company under the 1934 Act, including pursuant to Section 13(a) or 15(d) thereof, for the one year preceding the date hereof. As of their respective dates, or, if amended or supplemented, as of the date of the last such amendment or supplement filed prior to date hereof, each of the SEC Filings complied in all material respects with the applicable requirements of the 1933 Act, the 1934 Act and the Sarbanes-Oxley Act of 2002, and the applicable rules and regulations promulgated thereunder, as the case may be, each as in effect on the date so filed.

4.9. No Conflict, Breach, Violation or Default. The execution, delivery and performance of the Transaction Documents by the Company and the issuance and sale of the Closing Securities in accordance with the provisions thereof will not, (i) conflict with or result in a breach or violation of (a) any of the terms and provisions of, or constitute a default under, the Company's Certificate of Incorporation or the Company's Bylaws, both as in effect on the date hereof (true and complete copies of which have been made available to the Investors through the Electronic Data Gathering, Analysis, and Retrieval system (the "EDGAR system")), or (b) assuming the accuracy of the representations and warranties in Section 5, any applicable statute, rule, regulation or order of any governmental agency or body or any court, domestic or foreign, having jurisdiction over the Company or any of its assets or properties, or (ii) except for such violations, conflicts or defaults as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any lien, encumbrance or other adverse claim upon any of the properties or assets of the Company or give to others any rights of termination, amendment, acceleration or cancellation

(with or without notice, lapse of time or both) of, any Material Contract. This Section does not relate to matters with respect to tax status, which are the subject of Section 4.10, employee relations and labor matters, which are the subject of Section 4.13, and environmental laws, which are the subject of Section 4.15.

4.10. Tax Matters. The Company has timely prepared and filed all tax returns required to have been filed by it with all appropriate governmental agencies and timely paid all taxes shown thereon or otherwise owed by the Company. The charges, accruals and reserves on the books of the Company in respect of taxes for all fiscal periods are adequate in all material respects, and there are no material unpaid assessments against the Company nor, to the Company's Knowledge, any basis for the assessment of any additional taxes, penalties or interest for any fiscal period or audits by any federal, state or local taxing authority except for any assessment which is not material to the Company. All taxes and other assessments and levies that the Company is required to withhold or to collect for payment have been duly withheld and collected and paid to the proper governmental entity or third party when due. There are no tax liens or claims pending or, to the Company's Knowledge, threatened against the Company or any of its assets or property. There are no outstanding tax sharing agreements or other such arrangements between the Company and any other corporation or entity.

4.11. Title to Properties. The Company has good and marketable title to all real properties and all other properties and assets owned by it, in each case free from liens, encumbrances and defects, except such as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect; and the Company holds any leased real or personal property under valid and enforceable leases with no exceptions, except such as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

4.12. Certificates, Authorities and Permits. The Company possesses adequate certificates, authorities or permits issued by appropriate governmental agencies or bodies necessary to conduct the business now operated by it, except where failure to so possess would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect. The Company has not received any written notice of proceedings relating to the revocation or modification of any such certificate, authority or permit that would reasonably be expected to have a Material Adverse Effect, individually or in the aggregate, on the Company.

4.13. Labor Matters.

(a) The Company is not party to or bound by any collective bargaining agreements or other agreements with labor organizations. To the Company's knowledge, Company has not violated in any material respect any laws, regulations, orders or contract terms, affecting the collective bargaining rights of employees, labor organizations or any laws, regulations or orders affecting employment discrimination, equal opportunity employment, or employees' health, safety, welfare, wages and hours.

(b) No material labor dispute with the employees of the Company, or with the employees of any principal supplier, manufacturer, customer or contractor of the Company, exists or, to the knowledge of the Company, is threatened or imminent.

4.14. Intellectual Property. Except as expressly contemplated by the SEC Filings, the Company owns, possesses, licenses or has other rights to use, the patents and patent applications, copyrights, trademarks, service marks, trade names, service names and trade secrets described in the SEC Filings as necessary or material for use in connection with its business and which the failure to so have would have or reasonably be expected to result in a Material Adverse Effect (collectively, the “Company Intellectual Property”). There is no pending or, to the Company’s Knowledge, threatened action, suit, proceeding or claim by any Person that the Company’s business as now conducted infringes or otherwise violates any patent, trademark, copyright, trade secret or other proprietary rights of another. To the Company’s Knowledge, there is no existing infringement by another Person of any of the Intellectual Property Rights that would have or would reasonably be expected to have a Material Adverse Effect. The Company has taken reasonable security measures to protect the secrecy, confidentiality and value of all of its Intellectual Property Rights, except where failure to do so would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

4.15. Environmental Matters. The Company is not in violation of any statute, 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 or toxic substances or relating to the protection or restoration of the environment or human exposure to hazardous or toxic substances (collectively, “Environmental Laws”), has not released any hazardous substances regulated by Environmental Law on to any real property that it owns or operates, has not received any written notice or claim it is liable for any off-site disposal or contamination pursuant to any Environmental Laws, which violation, release, notice, claim, or liability would reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect,; and to the Company’s Knowledge, there is no pending or threatened investigation that would reasonably be expected to lead to such a claim.

4.16. Legal Proceedings. There are no legal, governmental or regulatory investigations, actions, suits or proceedings pending to which the Company is or may reasonably be expected to become a party or to which any property of the Company is or may reasonably be expected to become the subject that, individually or in the aggregate, would reasonably be expected to have a Material Adverse Effect.

4.17. Financial Statements. The financial statements included in each SEC Filing filed prior to the date hereof comply in all material respects with applicable accounting requirements and the rules and regulations of the SEC with respect thereto as in effect at the time of filing and present fairly, in all material respects, the financial position of the Company as of the dates shown and its results of operations and cash flows for the periods shown, subject in the case of unaudited financial statements to normal, immaterial year-end audit adjustments, and such financial statements have been prepared in conformity with United States generally accepted accounting principles applied on a consistent basis during the periods involved (“GAAP”) (except as may be disclosed therein or in the notes thereto, and except that the unaudited financial statements may not contain all footnotes required by GAAP, and, in the case of quarterly financial statements, as permitted by Form 10-Q under the 1934 Act). Except as set forth in the financial statements of the Company included in the SEC Filings filed prior to the date hereof, the Company has not incurred any liabilities, contingent or otherwise, except those incurred in the ordinary course of business, consistent (as to amount and nature) with past practices since the date of such financial statements, none of which, individually or in the aggregate, have had or would reasonably be expected to have a Material Adverse Effect.

4.18. Insurance Coverage. The Company maintains in full force and effect insurance coverage that is customary for comparably situated companies for the business being conducted and properties owned or leased by the Company, and the Company reasonably believes such insurance coverage to be adequate against all liabilities, claims and risks against which it is customary for comparably situated companies to insure.

4.19. Compliance with Nasdaq Continued Listing Requirements. The Company is in compliance with applicable Nasdaq continued listing requirements and the execution, delivery and performance by the Company of the Transaction Documents and the offer, issuance and delivery of the Closing Securities will not violate applicable Nasdaq continued listing requirements. There are no proceedings pending or, to the Company's Knowledge, threatened against the Company relating to the continued listing of the Common Stock on Nasdaq and the Company has not received any notice of, nor to the Company's Knowledge is there any reasonable basis for, the delisting of the Common Stock from Nasdaq.

4.20. Brokers and Finders. Other than the Placement Agent, no Person will have, as a result of the transactions contemplated by the Transaction Documents, any valid right, interest or claim against or upon the Company or an Investor for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of the Company. No Investor shall have any obligation with respect to any fees, or with respect to any claims made by or on behalf of other Persons for fees, in each case of the type contemplated by this Section 4.20 that may be due in connection with the transactions contemplated by this Agreement or the Transaction Documents.

4.21. No Directed Selling Efforts or General Solicitation. Neither the Company nor any Person acting on its behalf has conducted any general solicitation or general advertising (as those terms are used in Regulation D) in connection with the offer or sale of any of the Closing Securities.

4.22. No Integrated Offering. Neither the Company nor any Person acting on its behalf has, directly or indirectly, made any offers or sales of any Company security or solicited any offers to buy any Company security, under circumstances that would adversely affect reliance by the Company on Section 4(2) for the exemption from registration for the transactions contemplated hereby or would require registration of the Closing Securities under the 1933 Act.

4.23. Private Placement. Assuming the accuracy of the representations and warranties of the Investors set forth in Section 5, the offer and sale of the Closing Securities to the Investors as contemplated hereby is exempt from the registration requirements of the 1933 Act. The issuance and sale of the Closing Securities does not contravene the rules and regulations of Nasdaq.

4.24. Questionable Payments. Neither the Company nor, to the Company's Knowledge, any of its current or former directors, officers, employees, agents or other Persons acting on behalf of the Company, has on behalf of the Company in connection with its business:

(a) used any corporate funds for unlawful contributions, gifts, entertainment or other unlawful expenses relating to political activity; (b) made any direct or indirect unlawful payments to any governmental officials or employees from corporate funds; (c) established or maintained any unlawful or unrecorded fund of corporate monies or other assets which is in violation of law; (d) made any false or fictitious entries on the books and records of the Company; or (e) made any unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment of any nature.

4.25. Transactions with Affiliates. None of the executive officers or directors of the Company and, to the Company's Knowledge, none of the employees of the Company is presently a party to any transaction with the Company (other than as holders of stock options and/or warrants, and for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, or otherwise requiring payments to or from any officer, director or such employee or, to the Company's Knowledge, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee or partner.

4.26. Internal Controls. The Company has established and maintains disclosure controls and procedures (as defined in Rules 13a-15 and 15d-15 under the 1934 Act), which are designed to ensure that material information relating to the Company is made known to the Company's principal executive officer and its principal financial officer by others within those entities. Since the end of the Company's most recent audited fiscal year, there have been no significant deficiencies or material weakness in the Company's internal control over financial reporting (whether or not remediated) and no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. The Company is not aware of any change in its internal controls over financial reporting that has occurred during its most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

4.27. Disclosures. Neither the Company nor any Person acting on its behalf has provided the Investors or their agents or counsel with any information that constitutes or would reasonably be expected to constitute material, non-public information which according to applicable law, rule or regulation was required to have been disclosed publicly by the Company, but which has not been so disclosed, other than with respect to the transactions contemplated hereby and except as will be disclosed in the Press Release (as defined below). The SEC Filings do not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements contained therein, in light of the circumstances under which they were made, not misleading. The Company understands and confirms that the Investors will rely on the foregoing representations in effecting transactions in securities of the Company.

4.28. Required Filings. Since December 31, 2018, no event or circumstance has occurred or information exists with respect to the Company or its business, properties, operations or financial condition, which, under applicable law, rule or regulation, requires public disclosure or announcement by the Company but which have not been so publicly announced or disclosed (assuming for this purpose that the SEC Filings are being incorporated by reference into an effective registration statement filed by the Company under the 1933 Act).

4.29. Investment Company. The Company is not required to be registered as, and is not an Affiliate of, and immediately following the Closing will not be required to register as, an “investment company” within the meaning of the Investment Company Act of 1940, as amended.

4.30. Tests and Preclinical and Clinical Trials. The studies, tests and preclinical and clinical trials conducted by or, to the Company’s Knowledge, on behalf of the Company that are described in the SEC Filings were and, if still pending, are being, conducted in all material respects in accordance with the protocols submitted to the U.S. Food and Drug Administration (the “FDA”) or any foreign governmental body exercising comparable authority, procedures and controls pursuant to, where applicable, accepted professional and scientific standards, and all applicable laws and regulations; the descriptions of the studies, tests and preclinical and clinical trials conducted by or, to the Company’s Knowledge, on behalf of the Company, and the results thereof, contained in the SEC Filings are accurate and complete in all material respects; the Company is not aware of any other studies, tests or preclinical and clinical trials, the results of which call into question the results described in the SEC Filings; and the Company has not received any notices or correspondence from the FDA, any foreign, state or local governmental body exercising comparable authority or any Institutional Review Board requiring the termination, suspension, material modification or clinical hold of any studies, tests or preclinical or clinical trials conducted by or on behalf of the Company.

4.31. Manipulation of Price. The Company has not, and, to the Company’s Knowledge, no Person acting on its behalf has taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Securities.

4.32. Anti-Bribery and Anti-Money Laundering Laws. Each of the Company and any of its officers, directors, supervisors, managers, agents, or employees, are and have at all times been in compliance with and its participation in the offering will not violate: (A) anti-bribery laws, including but not limited to, any applicable law, rule, or regulation of any locality, including but not limited to any law, rule, or regulation promulgated to implement the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, signed December 17, 1997, including the U.S. Foreign Corrupt Practices Act of 1977, as amended, the U.K. Bribery Act 2010, or any other law, rule or regulation of similar purposes and scope or (B) anti-money laundering laws, including but not limited to, applicable federal, state, international, foreign or other laws, regulations or government guidance regarding anti-money laundering, including, without limitation, Title 18 US. Code section 1956 and 1957, the Patriot Act, the Bank Secrecy Act, and international anti-money laundering principles or procedures by an intergovernmental group or organization, such as the Financial Action Task Force on Money Laundering, of which the United States is a member and with which designation the United States representative to the group or organization continues to concur, all as amended, and any Executive order, directive, or regulation pursuant to the authority of any of the foregoing, or any orders or licenses issued thereunder.

4.33. Shell Company Status. The Company is not, and has never been, an issuer identified in, or subject to, Rule 144(i).

5. Representations and Warranties of the Investors. Each of the Investors hereby severally, and not jointly, represents and warrants to the Company that:

5.1. Organization and Existence. Such Investor is a validly existing corporation, limited partnership or limited liability company and has all requisite corporate, partnership or limited liability company power and authority to enter into and consummate the transactions contemplated by the Transaction Documents and to carry out its obligations hereunder and thereunder, and to invest in the Securities pursuant to this Agreement.

5.2. Authorization. The execution, delivery and performance by such Investor of the Transaction Documents to which such Investor is a party have been duly authorized and each has been duly executed and when delivered will constitute the valid and legally binding obligation of such Investor, enforceable against such Investor in accordance with their respective terms, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability, relating to or affecting creditors' rights generally.

5.3. Purchase Entirely for Own Account. The Securities to be received by such Investor hereunder will be acquired for such Investor's own account, not as nominee or agent, and not with a view to the resale or distribution of any part thereof in violation of the 1933 Act, and such Investor has no present intention of selling, granting any participation in, or otherwise distributing the same in violation of the 1933 Act without prejudice, however, to such Investor's right at all times to sell or otherwise dispose of all or any part of such Securities in compliance with applicable federal and state securities laws. Nothing contained herein shall be deemed a representation or warranty by such Investor to hold the Securities for any period of time. Such Investor is not a broker-dealer registered with the SEC under the 1934 Act or an entity engaged in a business that would require it to be so registered.

5.4. Investment Experience. Such Investor acknowledges that it can bear the economic risk and complete loss of its investment in the Securities and has such knowledge and experience in financial or business matters that it is capable of evaluating the merits and risks of the investment contemplated hereby.

5.5. Disclosure of Information. Such Investor has had an opportunity to receive, review and understand all information related to the Company requested by it and to ask questions of and receive answers from the Company regarding the Company, its business and the terms and conditions of the offering of the Securities, and has conducted and completed its own independent due diligence. Such Investor acknowledges that copies of the SEC Filings are available on the EDGAR system. Based on the information such Investor has deemed appropriate, and without reliance upon any Placement Agent, it has independently made its own analysis and decision to enter into the Transaction Documents. Such Investor is relying exclusively on its own sources of information, investment analysis and due diligence (including professional advice it deems appropriate) with respect to the execution, delivery and performance of the Transaction Documents, the Securities and the business, condition (financial and otherwise), management, operations, properties and prospects of the Company, including but

not limited to all business, legal, regulatory, accounting, credit and tax matters. Neither such inquiries nor any other due diligence investigation conducted by such Investor shall modify, limit or otherwise affect such Investor's right to rely on the Company's representations and warranties contained in this Agreement.

5.6. Restricted Securities. Such Investor understands that the Securities are characterized as "restricted securities" under the U.S. federal securities laws inasmuch as they are being acquired from the Company in a transaction not involving a public offering and that under such laws and applicable regulations such securities may be resold without registration under the 1933 Act only in certain limited circumstances.

5.7. Accredited Investor. Such Investor is (a) an "accredited investor" within the meaning of Rule 501 under the 1933 Act and has executed and delivered to the Company a questionnaire in substantially the form attached hereto as Exhibit E (the "Investor Questionnaire"), which such Investor represents and warrants is true, correct and complete. Such investor has sufficient knowledge and experience in investing in private equity transactions to properly evaluate the risks and merits of its purchase of the Securities. Such Investor has determined based on its own independent review and such professional advice as it deems appropriate that its purchase of the Securities and participation in the transactions contemplated by the Transaction Documents (i) are fully consistent with its financial needs, objectives and condition, (ii) comply and are fully consistent with all investment policies, guidelines and other restrictions applicable to such Investor, (iii) have been duly authorized and approved by all necessary action, (iv) do not and will not violate or constitute a default under such Investor's charter, bylaws or other constituent document or under any law, rule, regulation, agreement or other obligation by which such Investor is bound and (v) are a fit, proper and suitable investment for such Investor, notwithstanding the substantial risks inherent in investing in or holding the Securities.

5.8. Placement Agent. Such Investor hereby acknowledges and agrees that (a) the Placement Agent is acting solely as placement agent in connection with the execution, delivery and performance of the Transaction Documents and is not acting as an underwriter or in any other capacity and is not and shall not be construed as a fiduciary for such Investor, the Company or any other person or entity in connection with the execution, delivery and performance of the Transaction Documents, (b) the Placement Agent has not made and will not make any representation or warranty, whether express or implied, of any kind or character and has not provided any advice or recommendation in connection with the execution, delivery and performance of the Transaction Documents, (c) the Placement Agent will not have any responsibility with respect to (i) any representations, warranties or agreements made by any person or entity under or in connection with the execution, delivery and performance of the Transaction Documents, or the execution, legality, validity or enforceability (with respect to any person) thereof, or (ii) the business, affairs, financial condition, operations, properties or prospects of, or any other matter concerning the Company, and (d) the Placement Agent will not have any liability or obligation (including without limitation, for or with respect to any losses, claims, damages, obligations, penalties, judgments, awards, liabilities, costs, expenses or disbursements incurred by such Investor, the Company or any other person or entity), whether in contract, tort or otherwise, to such Investor, or to any person claiming through it, in respect of the execution, delivery and performance of the Transaction Documents.

5.9. No General Solicitation. Such Investor did not learn of the investment in the Securities as a result of any general solicitation or general advertising.

5.10. Brokers and Finders. No Person will have, as a result of the transactions contemplated by the Transaction Documents, any valid right, interest or claim against or upon the Company or an Investor for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of such Investor.

5.12 Short Sales and Confidentiality Prior to the Date Hereof. Other than consummating the transactions contemplated hereunder, such Investor has not, nor has any Person acting on behalf of or pursuant to any understanding with such Investor, directly or indirectly executed any purchases or sales, including Short Sales, of the securities of the Company during the period commencing as of the time that such Investor was first contacted by the Company, the Placement Agent or any other Person regarding the transactions contemplated hereby and ending immediately prior to the date hereof. Notwithstanding the foregoing, in the case of an Investor that is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of such Investor's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Investor's assets, the representation set forth above shall only apply with respect to the portion of assets managed by the portfolio manager that made the investment decision to purchase the Securities covered by this Agreement. Other than to other Persons party to this Agreement and their representatives, such Investor has maintained the confidentiality of all non-public disclosures made to it in connection with this transaction (including the existence and terms of this transaction). Notwithstanding the foregoing, for avoidance of doubt, nothing contained herein shall constitute a representation or warranty, or preclude any actions, with respect to the identification of the availability of, or securing of, available shares to borrow in order to effect Short Sales or similar transactions in the future.

5.13 No Government Recommendation or Approval. Such Investor understands that no United States federal or state agency, or similar agency of any other country, has reviewed, approved, passed upon, or made any recommendation or endorsement of the Company or the purchase of the Securities.

5.15 No Rule 506 Disqualifying Activities. Such Investor has not taken any of the actions set forth in, and is not subject to, the disqualification provisions of Rule 506(d)(1) of the 1933 Act.

5.16 Residency. Such Investor is a resident of the jurisdiction specified below its address on the Schedule of Investors.

6. Conditions to Closing.

6.1. Conditions to the Investors' Obligations. The obligation of each Investor to purchase Closing Securities at the Closing is subject to the fulfillment to such Investor's satisfaction, on or prior to the Closing Date, of the following conditions, any of which may be waived by such Investor (as to itself only):

(a) The representations and warranties made by the Company in Section 4 hereof shall be true and correct in all material respects as of the date hereof and on the Closing

Date, except to the extent any such representation or warranty expressly speaks as of an earlier date, in which case such representation or warranty shall be true and correct in all material respects as of such earlier date. The Company shall have performed in all material respects all obligations and covenants herein required to be performed by it on or prior to the Closing Date.

(b) The Company shall have obtained any and all consents, permits, approvals, registrations and waivers necessary for consummation of the purchase and sale of the Closing Securities and the consummation of the other transactions contemplated by the Transaction Documents, all of which shall be in full force and effect.

(c) The Company shall have executed and delivered the Registration Rights Agreement.

(d) The Company shall have filed with Nasdaq a Notification Form: Listing of Additional Shares for the listing of the Shares and the Warrant Shares.

(e) No judgment, writ, order, injunction, award or decree of or by any court, or judge, justice or magistrate, including any bankruptcy court or judge, or any order of or by any governmental authority, shall have been issued, and no action or proceeding shall have been instituted by any governmental authority, enjoining or preventing the consummation of the transactions contemplated hereby or in the other Transaction Documents.

(f) The Company shall have received gross proceeds of at least \$25 million from the sale of the Closing Securities.

(g) The Company shall have delivered a Certificate, executed on behalf of the Company by its Chief Executive Officer or its Chief Financial Officer, dated as of the Closing Date, certifying to the fulfillment of the conditions specified in subsections (a), (b), (d), (e), (f), (i) and (j) of this Section 6.1.

(h) The Company shall have delivered a Certificate, executed on behalf of the Company by its Secretary, dated as of the Closing Date, certifying the resolutions adopted by the Board approving the transactions contemplated by this Agreement and the other Transaction Documents and the issuance of the Closing Securities, certifying the current versions of the Certificate of Incorporation and Bylaws of the Company and certifying as to the signatures and authority of persons signing the Transaction Documents and related documents on behalf of the Company.

(i) The Board shall have, effective as of the Closing, (i) elected Nolan Sigal to the Board as a Class II director (with an initial term expiring at the Company's 2019 annual meeting of stockholders, which is to be held on June 19, 2019), (ii) determined to nominate Dr. Sigal for election as a Class II director at the 2019 annual meeting of stockholders (with an initial term expiring at the Company's 2022 annual meeting of stockholders) and to recommend that the Company's stockholders vote "for" Dr. Sigal at the 2019 annual meeting of stockholders, (iii) appointed Dr. Sigal to the compensation committee and the nominating and governance committee of the Board and (iv) adopted written policies to require that the approval of the following matters by the Board will require a vote of at least two-thirds of the independent and disinterested members of the Board to (a) any increase in the Company's aggregate indebtedness for borrowed money to any amount exceeding \$2 million; (b) any transaction with Affiliates or related party transactions, (c) any increase in the size of the Board and (d) any amendment to the policies contemplated by clauses (a), (b) and (c).

(j) The Investors shall have received an opinion from Wilmer Cutler Pickering Hale and Dorr LLP, the Company's counsel, dated as of the Closing Date, in form and substance reasonably acceptable to the Placement Agent and addressing such legal matters as the Investors may reasonably request.

(k) No stop order or suspension of trading shall have been imposed by Nasdaq, the SEC or any other governmental or regulatory body with respect to public trading in the Common Stock.

6.2. Conditions to Obligations of the Company. The Company's obligation to sell and issue Closing Securities at the Closing is subject to the fulfillment to the satisfaction of the Company on or prior to the Closing Date of the following conditions, any of which may be waived by the Company:

(a) The representations and warranties made by the Investors in Section 5 hereof shall be true and correct in all material respects as of the date hereof, and shall be true and correct in all material respects on the Closing Date with the same force and effect as if they had been made on and as of said date. The Investors shall have performed in all material respects all obligations and covenants herein required to be performed by them on or prior to the Closing Date.

(b) The Investors shall have executed and delivered the Registration Rights Agreement and each Investor Questionnaire.

(c) Any Investor purchasing Closing Securities at the Closing shall have paid in full its Subscription Amount to the Company.

6.3. Termination of Obligations to Effect Closing; Effects.

(a) The obligations of the Company, on the one hand, and the Investors, on the other hand, to effect the Closing shall terminate as follows:

(i) Upon the mutual written consent of the Company and Investors that agreed to purchase a majority of the Closing Securities to be issued and sold pursuant to this Agreement;

(ii) By the Company if any of the conditions set forth in Section 6.2 shall have become incapable of fulfillment, and shall not have been waived by the Company;

(iii) By an Investor (with respect to itself only) if any of the conditions set forth in Section 6.1 shall have become incapable of fulfillment, and shall not have been waived by the Investor; or

(iv) By either the Company or any Investor (with respect to itself only) if the Closing has not occurred on or prior to fifth Trading Day following the date of this Agreement;

provided, however, that, except in the case of clause (i) above, the party seeking to terminate its obligation to effect the Closing shall not then be in breach of any of its representations, warranties, covenants or agreements contained in this Agreement or the other Transaction Documents if such breach has resulted in the circumstances giving rise to such party's seeking to terminate its obligation to effect the Closing.

(b) In the event of termination by the Company or any Investor of its obligations to effect the Closing pursuant to this Section 6.3, written notice thereof shall be given to the other Investors by the Company and the other Investors shall have the right to terminate their obligations to effect the Closing upon written notice to the Company and the other Investors. Nothing in this Section 6.3 shall be deemed to release any party from any liability for any breach by such party of the terms and provisions of this Agreement or the other Transaction Documents or to impair the right of any party to compel specific performance by any other party of its obligations under this Agreement or the other Transaction Documents.

7. Covenants and Agreements of the Company.

7.1. No Conflicting Agreements. The Company will not take any action, enter into any agreement or make any commitment that would conflict or interfere in any material respect with the Company's obligations to the Investors under the Transaction Documents.

7.2. Nasdaq Listing; Depository Trust Company. The Company will use commercially reasonable efforts to continue the listing and trading of its Common Stock on Nasdaq and, in accordance, therewith, will use commercially reasonable efforts to comply in all respects with the Company's reporting, filing and other obligations under the bylaws or rules of such market or exchange, as applicable. The Company will use commercially reasonable efforts to maintain the eligibility of its Common Stock for electronic transfer through the Depository Trust Company or another established clearing corporation.

7.3. Termination of Covenants. The provisions of Sections 7.1 and 7.2 shall terminate and be of no further force and effect on the date on which the Company's obligations under the Registration Rights Agreement to register or maintain the effectiveness of any registration covering the Registrable Securities (as such term is defined in the Registration Rights Agreement) shall terminate.

7.4. Annual Meeting; Board of Directors. The Company will hold its 2019 annual meeting of stockholders on June 19, 2019. The Company will reduce the size of the Board to seven directors at such annual meeting, unless otherwise approved by a vote of at least a two-thirds of the independent and disinterested members of the Board.

7.5. Transfer Restrictions.

(a) The Securities may only be disposed of in compliance with state and federal securities laws. In connection with any transfer of Securities other than pursuant to an

effective registration statement or Rule 144, to the Company or to an Affiliate of an Investor or in connection with a pledge as contemplated in Section 7.5(b), the Company may require the transferor thereof to provide to the Company an opinion of counsel selected by the transferor and reasonably acceptable to the Company, the form and substance of which opinion shall be reasonably satisfactory to the Company, to the effect that such transfer does not require registration of such transferred Securities under the 1933 Act. As a condition of transfer, any such transferee shall agree in writing to be bound by the terms of this Agreement and the Registration Rights Agreement and shall have the rights and obligations of an Investor under this Agreement and the Registration Rights Agreement.

(b) The Investors understands that, unless provided otherwise in this Agreement, a Common Warrant or a Pre-Funded Warrant, any of the Shares and Warrant Shares, whether certificated or in book-entry form, will be endorsed with the following legend:

THIS SECURITY HAS NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT WITH A REGISTERED BROKER-DEALER OR OTHER LOAN WITH A FINANCIAL INSTITUTION THAT IS AN "ACCREDITED INVESTOR" AS DEFINED IN RULE 501(a) UNDER THE SECURITIES ACT OR OTHER LOAN SECURED BY SUCH SECURITIES.

An Investor may from time to time pledge pursuant to a bona fide margin agreement with a registered broker-dealer or grant a security interest in some or all of the Securities to a financial institution that is an "accredited investor" as defined in Rule 501(a) under the 1933 Act and who agrees to be bound by the provisions of this Agreement and, if required under the terms of such arrangement, such Investor may transfer pledged or secured Securities to the pledgees or secured parties in compliance with applicable law. Such a pledge or transfer would not be subject to approval of the Company and no legal opinion of legal counsel of the pledgee, secured party or pledgor shall be required in connection therewith. Further, no notice shall be required of such pledge. At the applicable Investor's expense, the Company will execute and deliver such reasonable documentation as a pledgee or secured party of Securities may reasonably request in connection with a pledge or transfer of the Securities.

(c) Notwithstanding Section 7.5(b), upon the written request of an Investor, any legend (including the legend set forth in Section 7.5(b) hereof) on the Shares or Warrant Shares held by such Investor may be removed (i) while a registration statement (including the Registration Statement) covering the resale of such security is effective under the 1933 Act, (ii) following any sale of such Shares or Warrant Shares pursuant to Rule 144, (iii) if such Shares or Warrant Shares are eligible for sale under Rule 144 without the requirement to be in compliance

with Rule 144(c)(1), or (iv) if such legend is not required under applicable requirements of the 1933 Act (including judicial interpretations and pronouncements issued by the staff of the Commission), subject in the case of clauses (ii), (iii) and (iv) to receipt from the Investor by the Company and the Transfer Agent of customary representations reasonably acceptable to the Company and the Transfer Agent in connection with such request. Upon such request, the Company shall (A) deliver to the Transfer Agent irrevocable instructions to the Transfer Agent to remove the legend, and (B) cause its counsel to deliver to the Transfer Agent one or more legal opinions to the effect that the removal of such legend in such circumstances may be effected under the 1933 Act if required by the Transfer Agent to effect the removal of the legend in accordance with the provisions of this Agreement. If all or any portion of a Common Warrant is exercised and (i) a registration statement (including the Registration Statement) covering the resale of such security is then effective under the 1933 Act, (ii) the Warrant Shares issuable upon such exercise are then eligible for sale under Rule 144 and without the requirement to be in compliance with Rule 144(c)(1), or (iii) if a legend is not required under applicable requirements of the 1933 Act (including judicial interpretations and pronouncements issued by the staff of the Commission), then such Warrant Shares shall be issued free of all legends, subject in the case of clauses (ii) and (iii) to receipt from the Investor by the Company and the Transfer Agent of customary representations reasonably acceptable to the Company and the Transfer Agent in connection therewith. The Company agrees that following the effective date of a registration statement covering the resale of the Shares and Warrant Shares or at such time as such legend is no longer required under this Section 7.5(c), it will, no later than two Trading Days following the delivery by an Investor to the Company or the Transfer Agent of a request for legend removal and in the case of a Shares or Warrant Shares evidenced by a physical certificate, the delivery of the physical certificate, and if relying on Rule 144, receipt from the Investor by the Company and the Transfer Agent of customary representations reasonably acceptable to the Company and the Transfer Agent in connection therewith (such second Trading Day, the "Legend Removal Date"), deliver or cause to be delivered to such Investor, as may be requested by the Investor, a certificate or book-entry position evidencing such Shares and Warrant Shares that is free from all restrictive and other legends or by crediting the account of the Investor's or its designee's account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system if the Company is then a participant in such system. The Company may not make any notation on its records or give instructions to the Transfer Agent that enlarge the restrictions on transfer set forth in Section 7(b).

(d) If the Company fails to deliver any such Shares or Warrant Shares free from all restrictive legends on or before the applicable Legend Removal Date and if after the Legend Removal Date, due to the Company's continuing failure to deliver such Shares or Warrant Shares, such Investor purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by such Investor of all or any portion of the Shares or Warrant Shares anticipated receiving from the Company without any restrictive legend, then the Company shall pay in cash to the Investor in an amount equal to the excess of such Investor's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased (the "Buy-In Price") over the product of (A) such number of shares of Common Stock the Company was required to deliver to such Investor by the Legend Removal Date multiplied by (B) the lowest closing sale price of the Common Stock on any Trading Day during the period commencing on the date of the delivery by such Investor to the Company such shares of Common Stock and ending on the date of such delivery and payment under this clause (ii).

(e) Each Investor, severally and not jointly with the other Investors, agrees with the Company (i) that such Investor will sell any Shares or Warrant Shares pursuant to either the registration requirements of the 1933 Act, including any applicable prospectus delivery requirements, or an exemption therefrom, (ii) that if Shares or Warrant Shares are sold pursuant to a Registration Statement, they will be sold in compliance with the plan of distribution set forth therein, (iii) that if, after the effective date of the registration statement covering the resale of the Shares and the Warrant Shares, such registration statement ceases to be effective and the Company has provided notice to such Investor to that effect, such Investor will sell Shares only in compliance with an exemption from the registration requirements of the 1933 Act; and acknowledges that the removal of the restrictive legend from the Shares and Warrant Shares due to the effectiveness of a registration statement as set forth in Section 7.5(c) is predicated upon the Company's reliance upon this Agreement.

7.6. Subsequent Equity Sales.

(a) From the date hereof until thirty (30) days after the effective date of the registration statement covering the resale of the Shares, without the consent of the Required Investors, the Company shall not (A) issue shares of Common Stock or Common Stock Equivalents or (B) file with the SEC a registration statement under the 1933 Act relating to any shares of Common Stock or Common Stock Equivalents, except pursuant to the Registration Rights Agreement. Notwithstanding the foregoing, the provisions of this Section 7.6(a) shall not apply to (i) the issuance of the Securities hereunder, (ii) the issuance of Common Stock or Common Stock Equivalents upon the conversion or exercise of any securities of the Company outstanding on the date hereof or outstanding pursuant to clause (iii) or (iv) below, (iii) the issuance of any Common Stock or Common Stock Equivalents pursuant to any Company stock-based compensation plans approved by the Company's stockholders or in accordance with Nasdaq Stock Market Rule 5635(c)(4), (iv) the issuance of any Common Stock or Common Stock Equivalents in connection with a transaction with an unaffiliated third party approved by the Board that includes a bona fide commercial relationship with the Company (including any joint venture, marketing or distribution arrangement, strategic alliance, collaboration agreement or corporate partnering, intellectual property license agreement or acquisition agreement with the Company); provided, however, that the aggregate number of shares of Common Stock issued pursuant to clause (iv) during the restricted period shall not exceed 10% of the total number of shares of Common Stock issued and outstanding immediately following the Closing.

(b) The Company shall not, and shall use its commercially reasonable efforts to ensure that no Affiliate of the Company shall, sell, offer for sale or solicit offers to buy or otherwise negotiate in respect of any security (as defined in Section 2 of the 1933 Act) that will be integrated with the offer or sale of the Securities in a manner that would require the registration under the 1933 Act of the sale of the Securities to the Investors, or that will be integrated with the offer or sale of the Securities for purposes of the rules and regulations of any trading market such that it would require stockholder approval prior to the closing of such other transaction unless stockholder approval is obtained before the closing of such subsequent transaction.

7.7. Preemptive Rights.

(a) Subject to the terms and conditions of this Section 7.7 and any applicable securities laws, if the Company proposes to offer or sell any New Securities (a "Subsequent Financing") for cash consideration, indebtedness or a combination thereof, then each Major Investor shall have the right to purchase the same securities as are offered in the Subsequent Financing and at the same price as the securities offered in the Subsequent Financing and on the same other terms as such securities are offered to other investors in the Subsequent Financing in an amount of the Subsequent Financing up to the Major Investor's Pro-Rata Share (as defined below); provided that if the Subsequent Financing is an offering that is registered under the 1933 Act, the Major Investor will have the right to purchase New Securities in a side-by-side private placement. For purposes of this Agreement, each Major Investor's "Pro-Rata Share" shall be equal to the number of Shares and Warrant Shares held by such Major Investor and its Affiliates plus the number of Warrant Shares then issuable upon exercise of the Warrants held by such Major Investor and its Affiliates immediately prior to the closing of the Subsequent Financing (based upon documentation or written representation reasonably satisfactory to the Company), divided by the total number of shares of Common Stock outstanding (assuming full conversion and/or exercise, as applicable, of all Warrants) immediately prior to the closing of the Subsequent Financing.

(b) At least five (5) Trading Days prior to the entering into a definitive agreement for a Subsequent Financing, the Company shall deliver to the Major Investors a confidential notice of its intention to effect a Subsequent Financing (the "Subsequent Financing Notice") describing in reasonable detail the proposed terms of such Subsequent Financing, such Major Investor's Pro-Rate Share and the estimated date and time at which the Company expects to enter into an definitive agreement for the sale of securities in the Subsequent Financing.

(c) If a Major Investor desires to participate in a Subsequent Financing, then such Major Investor must provide a written notice to the Company by not later than 5:30 p.m. (New York City time) on the third (3rd) Trading Day after such Major Investor has received a Subsequent Financing Notice, stating the amount of such Major Investor's elected participation. If the Company receives no such notice from a Major Investor within the time period set forth herein, such Major Investor shall be deemed to have notified the Company that it does not elect to purchase any securities in connection with such Subsequent Financing and the Company shall be free to sell such securities in the Subsequent Financing. The closing of any purchase of New Securities by a Major Investor shall occur concurrently with the sale of New Securities in the Subsequent Financing and it shall be a condition to the participation of the Major Investor in the Subsequent Financing that the Major Investor further agree to execute such other documents and agreements as may reasonably be requested of a Major Investor by the Company in connection with a Subsequent Financing.

(d) Notwithstanding anything to the contrary in this Section 7.7 and unless otherwise agreed by each Major Investor that has elected to participate in such Subsequent Financing, in the event the Company determines to abandon a Subsequent Financing, the Company shall, or shall cause the managing underwriter(s) or placement agent(s), as the case may be, to confirm such abandonment to each such Major Investor in the same manner and on the same day as such abandonment is communicated to other potential investors. If, by the

twentieth (20th) day following delivery of the Subsequent Financing Notice, no public disclosure regarding a transaction with respect to the Subsequent Financing has been made, such Subsequent Financing shall be deemed to have been abandoned and the applicable Major Investors shall be deemed to not be in possession of any material, non-public information with respect to the proposed Subsequent Financing by the Company, unless the Company advises the applicable Major Investors that the Subsequent Financing has not been abandoned. The Company understands and confirms that the Major Investors may rely on this Section 7.7(d) when effecting transactions in securities of the Company

(e) The rights set forth in this Section 7.7 shall remain in effect with respect to a particular Major Investor as long as such Major Investor and its Affiliates collectively own fifty percent (50%) or more of the number of shares of Common Stock owned by the Investor and its Affiliates immediately following the Closing.

(f) Notwithstanding the foregoing, this Section 7.7 shall not apply in respect of an Exempt Issuance and all rights of a Major Investor pursuant to this Section 7.7 shall terminate upon the occurrence of a Fundamental Transaction as defined in the Common Warrant.

7.8. Short Sales and Confidentiality After the Date Hereof. Each Investor covenants that neither it nor any Affiliates acting on its behalf or pursuant to any understanding with it will execute any Short Sales during the period from the date hereof until the earlier of such time as (i) the transactions contemplated by this Agreement are first publicly announced or (ii) this Agreement is terminated in full. Each Investor covenants that until such time as the transactions contemplated by this Agreement are publicly disclosed by the Company, such Investor will maintain the confidentiality of all disclosures made to it in connection with this transaction (including the existence and terms of this transaction).

7.9. Public Information. At any time during the period commencing from the six (6) month anniversary of the Closing Date and ending at such time that all of the Shares and Warrant Shares of an Investor, if a registration statement is not available for the resale of all of the Shares and Warrant Shares of an Investor, may be sold without restriction or limitation pursuant to Rule 144 and without the requirement to be in compliance with Rule 144(c)(1), if the Company shall (i) fail for any reason to satisfy the requirements of Rule 144(c)(1), including, without limitation, the failure to satisfy the current public information requirements under Rule 144(c) or (ii) if the Company has ever been an issuer described in Rule 144(i)(1)(i) or becomes such an issuer in the future, and the Company shall fail to satisfy any condition set forth in Rule 144(i)(2) (each, a “Public Information Failure”) then, as partial relief for the damages to any holder of Securities by reason of any such delay in or reduction of its ability to sell the Shares and Warrant Shares (which remedy shall not be exclusive of any other remedies available at law or in equity), the Company shall pay to such Investor or its designee an amount in cash equal to one percent (1.0%) of the aggregate Purchase Price of such holder’s Securities on the day of a Public Information Failure and on every thirtieth day (pro-rated for periods totaling less than thirty days) thereafter until the earlier of (i) the date such Public Information Failure is cured and (ii) such time that such Public Information Failure no longer prevents a holder of Securities from selling such Shares and Warrant Shares pursuant to Rule 144 without any restrictions or limitations. The payments to which a holder shall be entitled pursuant to this Section 4(p) are referred to herein as “Public Information Failure Payments.” Public Information Failure

Payments shall be paid on the earlier of (I) the last day of the calendar month during which such Public Information Failure Payments are incurred and (II) the third Business Day after the event or failure giving rise to the Public Information Failure Payments is cured. In the event the Company fails to make Public Information Failure Payments in a timely manner, such Public Information Failure Payments shall bear interest at the rate of 1.0% per month (prorated for partial months) until paid in full.

8. Survival and Indemnification.

8.1. Survival. The representations, warranties, covenants and agreements contained in this Agreement shall survive the Closing of the transactions contemplated by this Agreement for the applicable statute of limitations.

8.2. Indemnification. The Company agrees to indemnify and hold harmless each Investor and its Affiliates and their respective directors, officers, trustees, members, managers, employees and agents, and their respective successors and assigns, from and against any and all losses, claims, damages, liabilities and expenses (including without limitation reasonable attorney fees and disbursements and other expenses reasonably incurred in connection with investigating, preparing or defending any action, claim or proceeding, pending or threatened and the costs of enforcement thereof) (collectively, "Losses") to which such Person may become subject (i) as a result of any breach of representation, warranty, covenant or agreement made by or to be performed on the part of the Company under the Transaction Documents or (ii) arising from the Company's fraud, gross negligence and willful misconduct in connection with the execution, delivery and performance by the Company of the Transaction Documents and the offer, issuance and sale of the Closing Securities, and will reimburse any such Person for all such amounts as they are incurred by such Person.

8.3. Conduct of Indemnification Proceedings. Any person entitled to indemnification hereunder shall (i) give prompt notice to the Company of any claim with respect to which it seeks indemnification and (ii) permit the Company to assume the defense of such claim with counsel reasonably satisfactory to the indemnified party; provided that any person entitled to indemnification hereunder shall have the right to employ separate counsel and to participate in the defense of such claim, but the fees and expenses of such counsel shall be at the expense of such person unless (a) the Company has agreed to pay such fees or expenses, (b) the Company shall have failed to assume the defense of such claim and employ counsel reasonably satisfactory to such person or (c) in the reasonable judgment of any such person, based upon written advice of its counsel, a conflict of interest exists between such person and the Company with respect to such claims (in which case, if the person notifies the Company in writing that such person elects to employ separate counsel at the expense of the Company, the Company shall not have the right to assume the defense of such claim on behalf of such person); and provided, further, that the failure of any indemnified party to give notice as provided herein shall not relieve the Company of its obligations hereunder, except to the extent that such failure to give notice shall materially adversely affect the Company in the defense of any such claim or litigation. It is understood that the Company shall not, in connection with any proceeding in the same jurisdiction, be liable for fees or expenses of more than one separate firm of attorneys at any time for all such indemnified parties. The Company will not, except with the consent of the indemnified party, which consent shall not be unreasonably withheld, conditioned or delayed,

consent to entry of any judgment or enter into any settlement that does not include as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified party of a release from all liability in respect of such claim or litigation. No indemnified party will, except with the consent of the Company, consent to entry of any judgment or enter into any settlement.

9. Miscellaneous.

9.1. Successors and Assigns. This Agreement may not be assigned by a party hereto without the prior written consent of the Company or each of the Investors, as applicable, provided, however, that an Investor may assign its rights and delegate its duties hereunder in whole or in part to an Affiliate or to a third party acquiring some or all of its Securities in a transaction complying with applicable securities laws without the prior written consent of the Company or the other Investors, provided such assignee agrees in writing to be bound by the provisions hereof that apply to Investors. The provisions of this Agreement shall inure to the benefit of and be binding upon the respective permitted successors and assigns of the parties. Without limiting the generality of the foregoing, in the event that the Company is a party to a merger, consolidation, share exchange or similar business combination transaction in which the Common Stock is converted into the equity securities of another Person, from and after the effective time of such transaction, such Person shall, by virtue of such transaction, be deemed to have assumed the obligations of the Company hereunder, the term "Company" shall be deemed to refer to such Person and the term "Securities" shall be deemed to refer to the securities received by the Investors in connection with such transaction. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective permitted successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

9.2. Counterparts; Faxes; E-mail. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may also be executed via facsimile or e-mail, which shall be deemed an original.

9.3. Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

9.4. Notices. Unless otherwise provided, any notice required or permitted under this Agreement shall be given in writing and shall be deemed effectively given as hereinafter described (i) if given by personal delivery, then such notice shall be deemed given upon such delivery, (ii) upon delivery, if given by facsimile, so long as the sender receives a machine generated notice of delivery, (iii) upon delivery, if delivered by e-mail so long as the send does not receive an automatically generated notice of delivery failure, (iv) if given by mail, then such notice shall be deemed given upon the earlier of (A) receipt of such notice by the recipient or (B) three days after such notice is deposited in first class mail, postage prepaid, and (v) if given by an internationally recognized overnight air courier, then such notice shall be deemed given one Business Day after delivery to such carrier. All notices shall be addressed to the party to be notified at the address as follows, or at such other address as such party may designate by ten days' advance written notice to the other party:

If to the Company:

Aileron Therapeutics, Inc.
490 Arsenal Way
Watertown, Massachusetts 02472
Attention: Chief Financial Officer
Email: ddougherty@aileronrx.com

With a copy to:

Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, Massachusetts 02109
Attention: Stuart M. Falber
Email: stuart.falber@wilmerhale.com

If to the Investors:

to the addresses set forth on the signature pages hereto.

9.5. Expenses. The parties hereto shall pay their own costs and expenses in connection herewith regardless of whether the transactions contemplated hereby are consummated; it being understood that each of the Company and each Investor has relied on the advice of its own respective counsel.

9.6. Amendments and Waivers. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance and either retroactively or prospectively), only with the written consent of the Company and (a) prior to the Closing, Investors that agreed to purchase a majority of the Shares to be issued and sold pursuant to this Agreement and (b) following the Closing, the Required Investors. Notwithstanding the foregoing, this Agreement may not be amended and the observance of any term of this Agreement may not be waived with respect to any Investor without the written consent of such Investor unless such amendment or waiver applies to all Investors in the same fashion. Any amendment or waiver effected in accordance with this paragraph shall be binding upon (i) prior to Closing, each Investor and (ii) following the Closing, each holder of any Securities purchased under this Agreement at the time outstanding, and in each case, each future holder of all such Securities and the Company.

9.7. Publicity. Except as set forth below, no public release or announcement concerning the transactions contemplated hereby shall be issued by the Investors without the prior consent of the Company (which consent shall not be unreasonably withheld), except for such disclosure to Affiliates or limited partners on a non-public basis consistent with public disclosure by the Company and as such release or announcement may be required by law or the applicable rules or regulations of any securities exchange or securities market, in which case the Investors shall allow the Company, to the extent reasonably practicable in the circumstances, reasonable time to comment on such release or announcement in advance of such issuance. The Company shall not include the name of any Investor in any press release or public announcement

(which, for the avoidance of doubt, shall not include any SEC Filing) without the prior written consent of such Investor. By the Disclosure Time, the Company shall issue a press release disclosing all material terms of transactions contemplated by this Agreement (the "Press Release"). No later than 5:30 p.m. (New York City time) on the first Business Day following the date this Agreement is executed, the Company will file a Current Report on Form 8-K (the "8-K Filing") attaching the press release described in the foregoing sentence as well as copies of the Transaction Documents. In addition, the Company will make such other filings and notices in the manner and time required by the SEC or Nasdaq. The parties acknowledge that from and after the issuance of the Press Release, no Investor shall be in possession of any material, nonpublic information received from the Company or any of its respective officers, directors, employees or agents, with respect to the transactions contemplated hereby that is not disclosed in the Press Release. The Company shall not, and shall cause each of its officers, directors, employees and agents, not to, provide any Investor with any such material, nonpublic information regarding the Company from and after the filing of the Press Release without the express prior written consent of such Investor.

9.8. Severability. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof but shall be interpreted as if it were written so as to be enforceable to the maximum extent permitted by applicable law, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. To the extent permitted by applicable law, the parties hereby waive any provision of law which renders any provision hereof prohibited or unenforceable in any respect.

9.9. Entire Agreement. This Agreement, including the signature pages, Exhibits and the Disclosure Schedules, and the other Transaction Documents constitute the entire agreement among the parties hereof with respect to the subject matter hereof and thereof and supersede all prior agreements and understandings, both oral and written, between the parties with respect to the subject matter hereof and thereof.

9.10. Further Assurances. The parties shall execute and deliver all such further instruments and documents and take all such other actions as may reasonably be required to carry out the transactions contemplated hereby and to evidence the fulfillment of the agreements herein contained.

9.11. Governing Law; Consent to Jurisdiction; Waiver of Jury Trial. This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the choice of law principles thereof. Each of the parties hereto irrevocably submits to the exclusive jurisdiction of the courts of the State of New York located in New York County and the United States District Court for the Southern District of New York for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Agreement and the transactions contemplated hereby. Service of process in connection with any such suit, action or proceeding may be served on each party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Agreement. Each of the parties hereto irrevocably consents to the jurisdiction of any such court in any such suit, action or proceeding and to the laying of venue in such court. Each party hereto irrevocably waives any

objection to the laying of venue of any such suit, action or proceeding brought in such courts and irrevocably waives any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. **EACH OF THE PARTIES HERETO WAIVES ANY RIGHT TO REQUEST A TRIAL BY JURY IN ANY LITIGATION WITH RESPECT TO THIS AGREEMENT AND REPRESENTS THAT COUNSEL HAS BEEN CONSULTED SPECIFICALLY AS TO THIS WAIVER.**

9.12. Independent Nature of Investors' Obligations and Rights. The obligations of each Investor under any Transaction Document are several and not joint with the obligations of any other Investor, and no Investor shall be responsible in any way for the performance of the obligations of any other Investor under any Transaction Document. The decision of each Investor to purchase Closing Securities pursuant to the Transaction Documents has been made by such Investor independently of any other Investor. Nothing contained herein or in any Transaction Document, and no action taken by any Investor pursuant thereto, shall be deemed to constitute the Investors as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Investors are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by the Transaction Documents. Each Investor acknowledges that no other Investor has acted as agent for such Investor in connection with making its investment hereunder and that no Investor will be acting as agent of such Investor in connection with monitoring its investment in the Securities or enforcing its rights under the Transaction Documents. Each Investor shall be entitled to independently protect and enforce its rights, including, without limitation, the rights arising out of this Agreement or out of the other Transaction Documents, and it shall not be necessary for any other Investor to be joined as an additional party in any proceeding for such purpose. The Company acknowledges that each of the Investors has been provided with the same Transaction Documents for the purpose of closing a transaction with multiple Investors and not because it was required or requested to do so by any Investor.

9.13. Limitation of Liability. Notwithstanding anything herein to the contrary, the Company acknowledges and agrees that the liability of an Investor arising directly or indirectly under any Transaction Document of any and every nature whatsoever shall be satisfied solely out of the assets of such Investor and that no trustee, officer, other investment vehicle or any other Affiliate of such Investor or any investor, shareholder or holder of shares of beneficial interest of such Investor shall be personally liable for any liabilities of such Investor.

[remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties have executed this Agreement or caused their duly authorized officers to execute this Agreement as of the date first above written.

COMPANY:

AILERON THERAPEUTICS, INC.

By: /s/ Manuel C. Alves Aivado

Name: Manuel C. Alves Aivado

Title: Chief Executive Officer

INVESTOR: SATTER MEDICAL TECHNOLOGY PARTNERS, L.P.

By: Satter Medical Technology GP, L.P.
Its: General Partner

By: Satter Medical Technology UGP, LLC
Its: General Partner

By: Muneer A. Satter Revocable Trust
Its: Managing Member

By: /s/ Muneer A. Satter
Name: Muneer A. Satter
Title: Trustee

INVESTOR: ARMISTICE CAPITAL MASTERFUND LLC

By: /s/ Anthony Cordone
Name: Anthony Cordone
Title: CFO

INVESTOR: Jennison Global Healthcare Master Fund, Ltd.

By: Jennison Associates LLC, as the Investment Manager of Jennison Global Healthcare Master Fund, Ltd.

By: /s/ David Chan
Name: David Chan
Title: Managing Director of Jennison Associates LLC

INVESTOR: Prudential Sector Funds, Inc. - PGIM Jennison Health Sciences Fund

By: Jennison Associates LLC, as the Subadvisor of Prudential Sector Funds, Inc. - PGIM Jennison - Health Sciences Fund

By: /s/ David Chan
Name: David Chan
Title: Managing Director of Jennison Associates LLC

INVESTOR: Jenop Global Healthcare Fund Limited

By: Jennison Associates LLC, as the Investment Manager of Jenop Global Healthcare Fund Limited

By: /s/ David Chan
Name: David Chan
Title: Managing Director of Jennison Associates LLC

INVESTOR:

By: /s/ Scott Kapnick
Name: Scott Kapnick
Title:

INVESTOR: SABBY VOLATILITY WARRANT MASTER FUND, LTD.

By: /s/ Robert Grundstein
Name: Robert Grundstein
Title: COO of Investment Manager

INVESTOR: SIGMA EMERGING MARKETS LTD.

By: /s/ Rafael Urquia II
Name: Rafael Urquia II
Title: Secretary

INVESTOR: CVF, LLC

By: /s/ Gerrit Adams
Name: Gerrit Adams
Title: Senior Associate

INVESTOR: Empery Asset Master, LTD

By: Empery Asset Management, LP, its authorized agent

By: /s/ Brett S. Director

Name: Brett S. Director

Title: General Counsel of Empery Asset Management, LP

INVESTOR:

Empery Tax Efficient, LP

By: Empery Asset Management, LP, its authorized agent

By: /s/ Brett S. Director

Name: Brett S. Director

Title: General Counsel of Empery Asset Management, LP

INVESTOR:

Empery Tax Efficient II, LP

By: Empery Asset Management, LP, its authorized agent

By: /s/ Brett S. Director

Name: Brett S. Director

Title: General Counsel of Empery Asset Management, LP

INVESTOR:

Lincoln Park Capital Fund, LLC

By: Lincoln Park Capital LLC

By: Rockledge Capital Corporation

By: /s/ Joshua Scheinfeld

Name: Joshua Scheinfeld

Title: President

INVESTOR:

DAFNA Lifescience LP

By: /s/ Fariba Ghodsian

Name: Fariba Ghodsian

Title: C.I.O.

INVESTOR:

DAFNA Lifescience Select LP

By: /s/ Fariba Ghodsian

Name: Fariba Ghodsian

Title: C.I.O.

INVESTOR:

Intracoastal Capital LLC

By: /s/ Keith Goodman

Name: Keith Goodman

Title: Authorized Signatory

INVESTOR:

CVI Investments Inc.

By: Heights Capital Management Its Authorized Agent

By: /s/ Martin Kobinger

Name: Martin Kobinger

Title: Investment Manager

INVESTOR:

By: /s/ Josef von Rickenbach

Name: Josef von Rickenbach

Title: Mg. Dir.

INVESTOR:

Terry J. Gottlieb Revocable Trust

By: /s/ Terry Gottlieb

Name: Terry Gottlieb

Title: Trustee

Investor Information

Entity Name:

Contact Person:

Address:

City:

State:

Zip Code:

Telephone:

Facsimile:

Email:

Tax ID # or Social Security #:

Name in which Securities should be issued:

EXHIBIT A

Schedule of Investors

<u>Investor Name and Address</u>	<u>Number of Shares to be Purchased</u>	<u>Number of Common Warrant Shares Underlying Common Warrants Purchased</u>	<u>Number of Pre-Funded Warrants to be Purchased</u>	<u>Number of Pre-Funded Warrant Shares Underlying Pre-Funded Warrants Purchased</u>	<u>Number of Common Warrant Shares Underlying Common Warrants Purchased</u>	<u>Aggregate Purchase Price of Closing Securities</u>
Satter Medical Technology Partners, L.P. 676 N. Michigan Avenue, Suite 4000 Chicago IL, 60611	3,731,343	3,731,343	0	0	0	\$ 7,499,999.43
Armistice Capital Masterfund LLC 510 Madison Ave. 7th Floor New York, NY 10022	2,137,089	2,137,089	1,096,741	1,096,741	1,096,741	\$ 6,499,998.30
Prudential Sector Funds, Inc. - PGIM Jennison Health Sciences Fund c/o Jennison Associates LLC 466 Lexington Avenue New York, NY 10017	895,522	895,522	0	0	0	\$ 1,799,999.22
Jennison Global Healthcare Master Fund, Ltd. c/o Jennison Associates LLC 466 Lexington Avenue New York, NY 10017	402,985	402,985	0	0	0	\$ 809,999.85
Jenop Global Healthcare Fund Limited c/o Jennison Associates LLC 466 Lexington Avenue New York, NY 10017	243,781	243,781	0	0	0	\$ 489,999.81
Scott Kapnick [**]	1,492,537	1,492,537	0	0	0	\$ 2,999,999.37
SABBY VOLATILITY WARRANT MASTER FUND, LTD. 10 Mountainview Road, Suite 208 Upper Saddle River, NJ 07458	995,024	995,024	0	0	0	\$ 1,999,998.24
Sigma Emerging Markets Ltd. OMC Chambers, Wickhams Cay 1 Road Town, Tortola British Virgin Islands Attn.: Jaime J. Montealegre						
WITH A COPY TO:						
Fox Horan & Camerini LLP Attn.: Rafael Urquia II, Esq. 885 Third Avenue, 17th Floor New York, NY 10022	621,890	621,890	0	0	0	\$ 1,249,998.90
CVF, LLC 222 N. LaSalle St, Suite 2000 Chicago, IL 60601	547,268	547,268	0	0	0	\$ 1,100,008.68

Empery Tax Efficient II, LP By: Empery Asset Management, LP, its authorized agent One Rockefeller Plaza, Suite 1205 New York City, NY 10020	148,404	148,404	0	0	0	\$ 298,292.04
Empery Asset Master, LTD By: Empery Asset Management, LP, its authorized agent One Rockefeller Plaza, Suite 1205 New York City, NY 10020	82,944	82,944	0	0	0	\$ 166,717.44
Empery Tax Efficient, LP By: Empery Asset Management, LP, its authorized agent One Rockefeller Plaza, Suite 1205 New York City, NY 10020	17,408	17,408	0	0	0	\$ 34,990.08
Lincoln Park Capital Fund, LLC 440 N. Wells St., Suite 410 Chicago, IL 60654	199,004	199,004	0	0	0	\$ 399,998.04
DAFNA Lifescience LP 10990 Wilshire Blvd., Suite 1400 Los Angeles, CA 90024	69,652	69,652	0	0	0	\$ 140,000.52
DAFNA Lifescience Select LP 10990 Wilshire Blvd., Suite 1400 Los Angeles, CA 90024	29,850	29,850	0	0	0	\$ 59,998.50
Intracoastal Capital LLC 2211A Lakeside Dr. Bannockburn, IL 60015	74,626	74,626	0	0	0	\$ 149,998.26
CVI Investments Inc., by Heights Capital Management its Authorized Agent 101 California St., Suite 3250 San Francisco, CA 94111	74,626	74,626	0	0	0	\$ 149,998.26
Josef von Rickenbach [**]	49,752	49,752	0	0	0	\$ 100,001.52
Terry J. Gottlieb Revocable Trust 9913 Casabella Way Bonita Springs, FL 34135	24,877	24,877	0	0	0	\$ 50,002.77
TOTAL	11,838,582	11,838,582	1,096,741	1,096,741	1,096,741	\$25,999,999.23

EXHIBIT B

Form of Common Warrant

EXHIBIT C

Form of Pre-Funded Warrant

EXHIBIT D

Registration Rights Agreement

EXHIBIT E

Investor Questionnaire

Disclosure Schedules

None.

NEITHER THIS SECURITY NOR THE SECURITIES INTO WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.

Number of Warrants:

Warrant Certificate No.

AILERON THERAPEUTICS, INC.

(A corporation existing under the laws of the State of Delaware)

THIS PRE-FUNDED COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, (the "Holder"), is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, including without limitation Section 2(d), at any time on or after the date hereof (the "Initial Exercisability Date") , until exercised in full (the "Termination Date") but not thereafter, to subscribe for and purchase from Aileron Therapeutics, Inc., a Delaware corporation (the "Company"), up to shares (the "Warrant Shares") of Common Stock, par value \$0.001 per share, of the Company (the "Common Stock"), subject to adjustment as provided herein. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the "Securities Purchase Agreement"), dated March 28, 2019, among the Company and the purchasers signatory thereto.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the date of issuance of this Warrant by delivery to the Company in accordance with the notice provisions of section 5(h) hereof of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within two (2) Trading Days following the date of delivery of the Notice of Exercise, the Holder shall deliver the aggregate Exercise Price for the shares being purchased as specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything

herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one Trading Day of receipt of such notice. The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.

b) Exercise Price. The aggregate exercise price of this Warrant, except for a nominal exercise price of \$0.01 per Warrant Share, was pre-funded to the Company on or prior to the Initial Exercisability Date and, consequently, no additional consideration (other than the nominal exercise price of \$0.01 per Warrant Share) shall be required to be paid by the Holder to any Person to effect any exercise of this Warrant. The Holder shall not be entitled to the return or refund of all, or any portion, of such pre-paid aggregate Exercise Price under any circumstance or for any reason whatsoever. The remaining unpaid exercise price per share of Common Stock under this Warrant shall be \$0.01, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. This Warrant may also be exercised, in whole or in part, by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing $[(A-B)*(X)]$ by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of delivery of the applicable Notice of Exercise if such Notice of Exercise is (1) delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of or during "regular trading hours" (as defined in Rule 600(b)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, or (ii) the VWAP on the date of delivery of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise to the holder of this Warrant, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act of 1933, as amended (the "Securities Act"), the Warrant Shares shall take on the characteristics of the Warrants being exercised, and, for purposes of Rule 144, the holding period of the Warrant Shares being issued may be tacked on to the holding period of this Warrant. The Company agrees not to take any position contrary to this Section 2(c).

The "VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market as reported by Bloomberg Financial L.P. (based on a Trading Day from 9:30 a.m. Eastern Time to 4:02 p.m. Eastern Time); (b) the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the OTCQB or OTCQX as applicable or (c) if the Common Stock is not then listed or quoted on the OTC QB or OTCQX and if prices for the Common Stock are then reported in the "Pink Sheets" published by the OTC Markets Group (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported; or (d) in all other cases, the fair market value of a share of Common Stock as determined by a good faith determination of the Company's Board of Directors.

d) Percentage Limitation.¹ Notwithstanding anything to the contrary contained herein, other than as provided in Section 2(f) and Section 3(c), the number of Warrant Shares that may be acquired by the Holder upon any exercise of this Warrant (or otherwise in respect hereof) shall be limited to the extent necessary to ensure that, following such exercise (or other issuance), the total number of shares of Common Stock then beneficially owned by the Holder and its affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended (the "1934 Act"), of the 1934 Act and the rules and regulations promulgated thereunder, including any "group" of which the Holder is a member, does not exceed [4.999]% of the total number of then issued and outstanding shares of Common Stock (including for such purpose the shares of Common Stock issuable upon such exercise), it being acknowledged by the Holder that the Company is not representing to such Holder that such calculation is in compliance with Section 13(d) of the 1934 Act and such Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(d) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by such Holder) and of which a portion of this Warrant is exercisable shall be in the sole discretion of a Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by such Holder) and of which portion of this Warrant is exercisable, in each case subject to such aggregate percentage limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination under this Section 2(d) as to any group status shall be determined in accordance with Section 13(d) of the 1934 Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(d), in determining the number of outstanding shares of Common Stock, the Holder may rely on the number of

¹ To be added with appropriate percentages if desired by any investor.

outstanding shares of Common Stock as reflected in (x) the Company's most recent Form 10-Q or Form 10-K, as the case may be, (y) a more recent public announcement by the Company or (z) any other more recent notice by the Company or the transfer agent of the Company (the "Transfer Agent") setting forth the number of shares of Common Stock outstanding. Upon the written request of the Holder, the Company shall within three (3) Trading Days confirm in writing to such Holder the number of shares of Common Stock then outstanding. Notwithstanding the foregoing, by written notice to the Company, which will not be effective until the sixty-first (61st) day after such notice is delivered to the Company, the Holder may waive the provisions of this Section 2(d) (but such waiver will not affect any other holder) or change the beneficial ownership limitation to such percentage of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant, as the Holder shall determine, in its sole discretion, subject to Section 2(e), and the provisions of this Section 2(d) shall continue to apply; provided that in no event shall such percentage limitation be increased to more than 9.999%. Upon such a change by a Holder of the beneficial ownership limitation from such [4.999]% limitation to such other percentage limitation, the beneficial ownership limitation may not be further waived by such Holder without first providing the minimum 61-day notice required by this Section 2(d).]

[e] Notwithstanding anything to the contrary contained herein, including Section 2(d), other than as provided in Section 2(f) and Section 3(c), the Company shall not effect any exercise of this Warrant, and the Holder shall not be entitled to exercise this Warrant for a number of Warrant Shares in excess of that number of Warrant Shares which, upon giving effect to such exercise, would cause (i) the aggregate number of shares of Common Stock beneficially owned by the Holder and its Affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the 1934 Act and the rules and regulations promulgated thereunder, including any "group" of which the Holder is a member, to exceed 19.99% of the total number of issued and outstanding shares of Common Stock of the Company following such exercise, or (ii) the combined voting power of the securities of the Company beneficially owned by the Holder and its Affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the 1934 Act to exceed 19.99% of the combined voting power of all of the securities of the Company then outstanding following such exercise. For purposes of this Section 2(e), the aggregate number of shares of Common Stock or voting securities beneficially owned by the Holder and its Affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the 1934 Act shall include the shares of Common Stock issuable upon the exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (x) exercise of the remaining unexercised and non-cancelled portion of this Warrant by the Holder and (y) exercise or conversion of the unexercised, non-converted or non-cancelled portion of any other securities of the Company that do not have voting power (including without limitation any securities of the Company which would entitle the holder thereof to acquire at any time Common Stock, including without limitation any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock), is subject to a limitation on conversion or exercise analogous to the limitation contained herein and is beneficially owned by the Holder or any of its Affiliates and other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the 1934 Act.²

² To be added only for investors which would otherwise acquire more than 19.99%.

f) Neither Section 2(d) nor Section 2(e) shall restrict the number of shares of Common Stock which a Holder may receive or beneficially own in order to determine the amount of securities or other consideration that such Holder may receive in the event of a Fundamental Transaction as contemplated in Section 3(c) of this Warrant.

g) Mechanics of Exercise.

i. Authorization of Warrant Shares. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment to the Company of the purchase price therefor, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

ii. Delivery of Certificates Upon Exercise. Certificates for shares purchased hereunder shall be transmitted by the Transfer Agent to the Holder in electronic book entry form to the account of such Holder or, upon request of the Holder, by physical delivery to the address specified by the Holder in the Notice of Exercise within two (2) Trading Days following the delivery of the applicable Notice of Exercise (the "Warrant Share Delivery Date"), provided, however, that if Holder shall request physical delivery of certificates representing the Warrant Shares or shall fail to remit payment for the Warrant Shares within two (2) Trading Days following the date of delivery of the Notice of Exercise pursuant to Section 2(a) (other than in the case of a cashless exercise pursuant to Section 2(c)), there shall be no requirement to deliver such certificates on or prior to the Warrant Share Delivery Date. This Warrant shall be deemed to have been exercised on the date the Exercise Price and the Notice of Exercise is delivered to the Company (or in the case of a cashless exercise pursuant to Section 2(c), the date Notice of Exercise is delivered). The Warrant Shares shall be deemed to have been issued, and Holder shall be deemed to have become a holder of record of such shares for all purposes, as of such date irrespective of the date such Warrant Shares are credited in book entry to the Holder's account. Notwithstanding the foregoing, if requested by the Holder, the Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) a registration statement covering the resale of Warrant Shares by the Holder is effective under the Securities Act or (B) the Warrant Shares are eligible for sale under Rule 144 and without the requirement to be in compliance with Rule 144(c)(1) (assuming cashless exercise of the Warrants), irrespective of the date. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. Solely for purposes of Regulation SHO, this Warrant shall be deemed to have been exercised upon delivery of a Notice of Exercise so long as the applicable Exercise Price is delivered to the Company no later than two Trading Days following the delivery of the applicable Notice of Exercise.

iii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant, deliver to Holder a new Warrant evidencing the rights of Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iv. Rescission Rights. If the Company fails to cause its Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(g)(ii) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

v. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(g)(ii) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase and does purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases on the Holder's behalf, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue and (2) the VWAP on the date of delivery of the Exercise Notice, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

vi. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share that Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price.

vii. Charges, Taxes and Expenses. The issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of such issuance, all of which taxes and expenses shall be paid by the Company, and the Company shall pay all applicable transfer agent fees and fees to the Depository Trust Company (or another established clearing corporation performing similar functions) as may be required for

same day processing. The Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder; and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto.

h) Obligations of the Company. The Company's obligations to issue and deliver Warrant Shares in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by the Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by the Holder or any other Person of any obligation to the Company or any violation or alleged violation of law by the Holder or any other Person, and irrespective of any other circumstance which might otherwise limit such obligation of the Company to the Holder in connection with the issuance of Warrant Shares. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver the Warrant Shares upon exercise of the Warrant as required pursuant to the terms hereof.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (A) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company pursuant to this Warrant), (B) subdivides outstanding shares of Common Stock into a larger number of shares, (C) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (D) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction, of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted in an inverse manner (*e.g.*, an increase in the Exercise Price shall result in a decrease in the number of shares of Common Stock). Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Pro Rata Distributions. If the Company, at any time prior to the Termination Date, shall declare, or distribute any dividend or other distribution to all holders of Common Stock (and not to Holders of the Warrants) of assets or evidence of its indebtedness (including cash and cash dividends) or rights or warrants to subscribe for or purchase any security other than the Common Stock, then in each such case the Exercise Price shall be adjusted by multiplying the

Exercise Price in effect immediately prior to the record date fixed for determination of stockholders entitled to receive such distribution by a fraction, of which the denominator shall be the VWAP determined as of the record date mentioned above, and of which the numerator shall be such VWAP on such record date less the then per share fair market value at such record date of the portion of such assets or evidence of indebtedness so distributed applicable to one outstanding share of the Common Stock as determined by the Board of Directors of the Company in good faith. The adjustment shall be described in a statement provided to the Holder. Such adjustment shall be made whenever any such distribution is made and shall become effective immediately after the record date mentioned above.

c) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and such offer has been accepted by the holders of a majority of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, the number of shares of common stock or other equity securities of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any other or additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is then exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(d) or 2(e) on the exercise of this Warrant, which shall cease to be applicable at the time of and following the Fundamental Transaction). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding the foregoing, in the event the Alternative Consideration consists

solely of cash (a “Fundamental Cash Transaction”), then Holder shall exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Fundamental Cash Transaction. If Holder does not so exercise this Warrant, this Warrant shall automatically be exercised pursuant to Section 2(c) hereof, without any action by Holder and without regard to any ownership limitation in Section 2(d) or 2(e) immediately prior to the consummation of such Fundamental Cash Transaction and in such event Holder shall not be required to pay the exercise price for the shares of Common Stock and may in the alternative elect to receive the cash consideration upon consummation, less the exercise price for the shares of Common Stock for which this Warrant has been exercised. The Company shall provide the Holder with written notice of the Fundamental Cash Transaction (together with such reasonable information as the Holder may request in connection with such contemplated Acquisition giving rise to such notice), which is to be delivered to Holder not less than ten (10) days prior to the closing of the proposed Fundamental Cash Transaction. To the extent necessary to effectuate the foregoing provisions, any successor to the Company or surviving entity in such Fundamental Transaction shall issue to the Holder a new warrant consistent with the foregoing provisions and evidencing the Holder’s right to exercise such warrant for the Alternate Consideration. The terms of any agreement pursuant to which a Fundamental Transaction is effected shall include terms requiring any such successor or surviving entity to comply with the provisions of this Section 3(c) and insuring that this Warrant (or any such replacement security) will be similarly adjusted upon any subsequent transaction analogous to a Fundamental Transaction.

d) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

e) Notice to Holders.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to this Section 3, the Company shall promptly deliver to each Holder a notice setting forth the Exercise Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution) on the Common Stock; (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock; (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights; (D) the approval of any stockholders of the Company shall be required in connection with any Fundamental Transaction; (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company; then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last address as it shall appear upon the Warrant Register of the Company, at least ten (10) calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the

date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided, that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. The Holder is entitled to exercise this Warrant during the ten (10)-day period commencing on the date of such notice to the effective date of the event triggering such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material non-public information regarding the Company, the Company shall make such information known to the public through a press release, filing with the Securities and Exchange Commission, or other public announcement prior to or in conjunction with such notice being provided to the Holder.

Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws and to the provisions of Section 7.5 of the Purchase Agreement, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. This Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued. The Holder represents that by accepting this Warrant it understands that this Warrant and any securities obtainable upon exercise of this Warrant have not been registered for sale under Federal or state securities laws and are being offered and sold to the Holder pursuant to one or more exemptions from the registration requirements of such securities laws. The Holder understands that it must bear the economic risk of its investment in this Warrant and any securities obtainable upon exercise of this Warrant for an indefinite period of time, as this Warrant and such securities have not been registered under Federal or state securities laws and therefore cannot be sold unless subsequently registered under such laws, unless an exemption from such registration is available.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants or like tenor in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights or other rights as a stockholder of the Company prior to effectiveness of the exercise hereof.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday, Sunday or a legal holiday, then such action may be taken or such right may be exercised on the next succeeding day not a Saturday, Sunday or legal holiday.

d) Authorized Shares. The Company covenants that during the period the Warrant is outstanding, it will maintain a reserve, free from preemption rights, from its duly authorized shares of Common Stock for issuance upon exercise of this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates or book entry shares to execute and issue the necessary certificates or book entry shares for the Warrant Shares upon the exercise of the purchase rights under this Warrant. If at any time prior to the Termination Date the number of authorized but unissued shares of Common Stock shall not be sufficient to permit exercise of this Warrant, the Company will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock (or other securities as provided herein) to such number of shares as shall be sufficient for such purposes.

Except and to the extent waived or consented to by the Holder, the Company hereby covenants to not, by any action, including, without limitation, amending its certificate of incorporation, by-laws or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, and will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (a) not increase the par value of any Warrant Shares above the Exercise Price then in effect and (b) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant.

e) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Securities Purchase Agreement.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered and if the Holder does not utilize cashless exercise after expiration of the Rule 144 holding period, will contain a legend to the effect that the Warrant Shares are not registered.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice Holder's rights, powers or remedies. If the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorney's fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Securities Purchase Agreement.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by Holder to exercise this Warrant or purchase Warrant Shares, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available or granted by law, including recovery of damages. Each of the parties hereto will be entitled to specific performance of its rights under this Warrant. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach or threatened breach by it of the provisions of this Warrant and hereby agrees to waive the defense in any action for specific performance that a remedy at law would be adequate including making a showing of economic loss and the posting of a bond or other security.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of all Holders from time to time of this Warrant and shall be enforceable by any such Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived only with the written consent of the Company and the Holder.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized.

Dated: April 2, 2019

AILERON THERAPEUTICS, INC.

By: _____

Name: Manuel C. Alves Aivado

Title: Chief Executive Officer

NOTICE OF EXERCISE

TO: AILERON THERAPEUTICS, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Pre-Funded Common Stock Purchase Warrant (only if exercised in full), and tenders herewith payment of the Exercise Price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

in lawful money of the United States; or (if available)

the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please cause the Warrant Shares to be issued in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number :

(4) Accredited Investor. The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

ASSIGNMENT FORM

(To assign the foregoing warrant, execute this form and supply required information. Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to:

whose address is:

Dated: _____, _____

Holder's Signature: _____

Holder's Address: _____

Signature Guaranteed: _____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank or trust company. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

NEITHER THIS SECURITY NOR THE SECURITIES INTO WHICH THIS SECURITY IS EXERCISABLE HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS. THIS SECURITY AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS SECURITY MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN SECURED BY SUCH SECURITIES.

Number of Warrants:

Warrant Certificate No.

AILERON THERAPEUTICS, INC.

(A corporation existing under the laws of the State of Delaware)

THIS COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, (the "Holder"), is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, including without limitation Section 2(d), at any time on or after the date hereof and on or prior to 5:00 p.m. (New York time) on , 2024 (the "Expiry Time") but not thereafter, to subscribe for and purchase from Aileron Therapeutics, Inc., a Delaware corporation (the "Company"), up to shares (the "Warrant Shares") of Common Stock, par value \$0.001 per share, of the Company (the "Common Stock"), subject to adjustment as provided herein. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. Capitalized terms used and not otherwise defined herein shall have the meanings set forth in that certain Securities Purchase Agreement (the "Securities Purchase Agreement"), dated March 28, 2019, among the Company and the purchasers signatory thereto.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the date of issuance of this Warrant and on or before the Expiry Time by delivery to the Company in accordance with the notice provisions of section 5(h) hereof of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within two (2) Trading Days following the date of delivery of the Notice of Exercise, the Holder shall deliver the aggregate Exercise Price for the shares being purchased as specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c)

below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one Trading Day of receipt of such notice. The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.

b) Exercise Price. The exercise price of the Common Stock under this Warrant shall be \$2.00 per share, subject to adjustment hereunder.

c) Cashless Exercise. This Warrant may also be exercised, in whole or in part, by means of a “cashless exercise” in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing $[(A-B)*(X)]$ by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of delivery of the applicable Notice of Exercise if such Notice of Exercise is (1) delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of or during “regular trading hours” (as defined in Rule 600(b)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, or (ii) the VWAP on the date of delivery of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is delivered pursuant to Section 2(a) hereof after the close of “regular trading hours” on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted; and

(X) = the number of Warrant Shares issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise to the holder of this Warrant, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act of 1933, as amended (the “Securities Act”), the Warrant Shares shall take on the characteristics of the Warrants being exercised, and, for purposes of Rule 144, the holding period of the Warrant Shares being issued may be tacked on to the holding period of this Warrant. The Company agrees not to take any position contrary to this Section 2(c).

The “VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market as reported by Bloomberg Financial L.P. (based on a Trading Day from 9:30 a.m. Eastern Time to 4:02 p.m. Eastern Time); (b) the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the OTCQB or OTCQX as applicable or (c) if the Common Stock is not then listed or quoted on the OTC QB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by the OTC Markets Group (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported; or (d) in all other cases, the fair market value of a share of Common Stock as determined by a good faith determination of the Company’s Board of Directors.

d) Percentage Limitation.¹ Notwithstanding anything to the contrary contained herein, other than as provided in Section 2(f) and Section 3(c), the number of Warrant Shares that may be acquired by the Holder upon any exercise of this Warrant (or otherwise in respect hereof) shall be limited to the extent necessary to ensure that, following such exercise (or other issuance), the total number of shares of Common Stock then beneficially owned by the Holder and its affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder’s for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended (the “1934 Act”), of the 1934 Act and the rules and regulations promulgated thereunder, including any “group” of which the Holder is a member, does not exceed [4.999]% of the total number of then issued and outstanding shares of Common Stock (including for such purpose the shares of Common Stock issuable upon such exercise), it being acknowledged by the Holder that the Company is not representing to such Holder that such calculation is in compliance with Section 13(d) of the 1934 Act and such Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(d) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by such Holder) and of which a portion of this Warrant is exercisable shall be in the sole discretion of a Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder’s determination of whether this Warrant is exercisable (in relation to other securities owned by such Holder) and of which portion of this Warrant is exercisable, in each case subject to such aggregate percentage limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination under this Section 2(d) as to any group status shall be determined in accordance with Section 13(d) of the 1934 Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(d), in determining the number of outstanding shares of Common Stock, the Holder may rely on the number of outstanding shares of Common Stock as reflected in (x) the Company’s most recent Form 10-Q or Form 10-K, as the case may be, (y) a more recent public announcement by the Company or (z) any other more recent notice by the Company or the transfer agent of the Company (the “Transfer Agent”) setting forth the number

¹ To be added with appropriate percentages if desired by any investor.

of shares of Common Stock outstanding. Upon the written request of the Holder, the Company shall within three (3) Trading Days confirm in writing to such Holder the number of shares of Common Stock then outstanding. Notwithstanding the foregoing, by written notice to the Company, which will not be effective until the sixty-first (61st) day after such notice is delivered to the Company, the Holder may waive the provisions of this Section 2(d) (but such waiver will not affect any other holder) or change the beneficial ownership limitation to such percentage of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant, as the Holder shall determine, in its sole discretion, subject to Section 2(e), and the provisions of this Section 2(d) shall continue to apply[; provided that in no event shall such percentage limitation be increased to more than 9.999%]. Upon such a change by a Holder of the beneficial ownership limitation from such [4.999]% limitation to such other percentage limitation, the beneficial ownership limitation may not be further waived by such Holder without first providing the minimum 61-day notice required by this Section 2(d).]

[e] Notwithstanding anything to the contrary contained herein, including Section 2(d), other than as provided in Section 2(f) and Section 3(c), the Company shall not effect any exercise of this Warrant, and the Holder shall not be entitled to exercise this Warrant for a number of Warrant Shares in excess of that number of Warrant Shares which, upon giving effect to such exercise, would cause (i) the aggregate number of shares of Common Stock beneficially owned by the Holder and its Affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the 1934 Act and the rules and regulations promulgated thereunder, including any "group" of which the Holder is a member, to exceed 19.99% of the total number of issued and outstanding shares of Common Stock of the Company following such exercise, or (ii) the combined voting power of the securities of the Company beneficially owned by the Holder and its Affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the 1934 Act to exceed 19.99% of the combined voting power of all of the securities of the Company then outstanding following such exercise. For purposes of this Section 2(e), the aggregate number of shares of Common Stock or voting securities beneficially owned by the Holder and its Affiliates and any other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the 1934 Act shall include the shares of Common Stock issuable upon the exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (x) exercise of the remaining unexercised and non-cancelled portion of this Warrant by the Holder and (y) exercise or conversion of the unexercised, non-converted or non-cancelled portion of any other securities of the Company that do not have voting power (including without limitation any securities of the Company which would entitle the holder thereof to acquire at any time Common Stock, including without limitation any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock), is subject to a limitation on conversion or exercise analogous to the limitation contained herein and is beneficially owned by the Holder or any of its Affiliates and other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) of the 1934 Act.]²

² To be added only for investors which would otherwise acquire more than 19.99%.

f) Neither Section 2(d) nor Section 2(e) shall restrict the number of shares of Common Stock which a Holder may receive or beneficially own in order to determine the amount of securities or other consideration that such Holder may receive in the event of a Fundamental Transaction as contemplated in Section 3(c) of this Warrant.

g) Mechanics of Exercise.

i. Authorization of Warrant Shares. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment to the Company of the purchase price therefor, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

ii. Delivery of Certificates Upon Exercise. Certificates for shares purchased hereunder shall be transmitted by the Transfer Agent to the Holder in electronic book entry form to the account of such Holder or, upon request of the Holder, by physical delivery to the address specified by the Holder in the Notice of Exercise within two (2) Trading Days following the delivery of the applicable Notice of Exercise (the "Warrant Share Delivery Date"), provided, however, that if Holder shall request physical delivery of certificates representing the Warrant Shares or shall fail to remit payment for the Warrant Shares within two (2) Trading Days following the date of delivery of the Notice of Exercise pursuant to Section 2(a) (other than in the case of a cashless exercise pursuant to Section 2(c)), there shall be no requirement to deliver such certificates on or prior to the Warrant Share Delivery Date. This Warrant shall be deemed to have been exercised on the date the Exercise Price and the Notice of Exercise is delivered to the Company (or in the case of a cashless exercise pursuant to Section 2(c), the date Notice of Exercise is delivered). The Warrant Shares shall be deemed to have been issued, and Holder shall be deemed to have become a holder of record of such shares for all purposes, as of such date irrespective of the date such Warrant Shares are credited in book entry to the Holder's account. Notwithstanding the foregoing, if requested by the Holder, the Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) a registration statement covering the resale of Warrant Shares by the Holder is effective under the Securities Act or (B) the Warrant Shares are eligible for sale under Rule 144 and without the requirement to be in compliance with Rule 144(c)(1) (assuming cashless exercise of the Warrants), irrespective of the date. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. Solely for purposes of Regulation SHO, this Warrant shall be deemed to have been exercised upon delivery of a Notice of Exercise so long as the applicable Exercise Price is delivered to the Company no later than two Trading Days following the delivery of the applicable Notice of Exercise.

iii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant, deliver to Holder a new Warrant evidencing the rights of Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iv. Rescission Rights. If the Company fails to cause its Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(g)(ii) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

v. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(g)(ii) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase and does purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases on the Holder's behalf, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue and (2) the VWAP on the date of delivery of the Exercise Notice, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

vi. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share that Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price.

vii. Charges, Taxes and Expenses. The issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of such issuance, all of which taxes and expenses shall be paid by the Company, and the Company shall pay all applicable transfer agent fees and fees to the Depository Trust Company (or another established clearing corporation performing similar functions) as may be required for same day processing. The Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided,

however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder; and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto.

h) Obligations of the Company. The Company's obligations to issue and deliver Warrant Shares in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by the Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by the Holder or any other Person of any obligation to the Company or any violation or alleged violation of law by the Holder or any other Person, and irrespective of any other circumstance which might otherwise limit such obligation of the Company to the Holder in connection with the issuance of Warrant Shares. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver the Warrant Shares upon exercise of the Warrant as required pursuant to the terms hereof.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (A) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company pursuant to this Warrant), (B) subdivides outstanding shares of Common Stock into a larger number of shares, (C) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (D) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction, of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted in an inverse manner (*e.g.*, an increase in the Exercise Price shall result in a decrease in the number of shares of Common Stock). Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Pro Rata Distributions. If the Company, at any time prior to the Expiry Time, shall declare, or distribute any dividend or other distribution to all holders of Common Stock (and not to Holders of the Warrants) of assets or evidence of its indebtedness (including cash and cash dividends) or rights or warrants to subscribe for or purchase any security other than the Common Stock, then in each such case the Exercise Price shall be adjusted by multiplying the Exercise Price in effect immediately prior to the record date fixed for determination of stockholders entitled to receive such distribution by a fraction, of which the

denominator shall be the VWAP determined as of the record date mentioned above, and of which the numerator shall be such VWAP on such record date less the then per share fair market value at such record date of the portion of such assets or evidence of indebtedness so distributed applicable to one outstanding share of the Common Stock as determined by the Board of Directors of the Company in good faith. The adjustment shall be described in a statement provided to the Holder. Such adjustment shall be made whenever any such distribution is made and shall become effective immediately after the record date mentioned above.

c) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and such offer has been accepted by the holders of a majority of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, the number of shares of common stock or other equity securities of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any other or additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is then exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(d) or 2(e) on the exercise of this Warrant, which shall cease to be applicable at the time of and following the Fundamental Transaction). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding the foregoing, in the event the Alternative Consideration consists solely of cash (a "Fundamental Cash Transaction"), then Holder shall exercise its conversion or

purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Fundamental Cash Transaction. If Holder does not so exercise this Warrant, this Warrant shall automatically be exercised pursuant to Section 2(c) hereof, without any action by Holder and without regard to any ownership limitation in Section 2(d) or 2(e) immediately prior to the consummation of such Fundamental Cash Transaction and in such event Holder shall not be required to pay the exercise price for the shares of Common Stock and may in the alternative elect to receive the cash consideration upon consummation, less the exercise price for the shares of Common Stock for which this Warrant has been exercised. The Company shall provide the Holder with written notice of the Fundamental Cash Transaction (together with such reasonable information as the Holder may request in connection with such contemplated Acquisition giving rise to such notice), which is to be delivered to Holder not less than ten (10) days prior to the closing of the proposed Fundamental Cash Transaction. To the extent necessary to effectuate the foregoing provisions, any successor to the Company or surviving entity in such Fundamental Transaction shall issue to the Holder a new warrant consistent with the foregoing provisions and evidencing the Holder's right to exercise such warrant for the Alternate Consideration. The terms of any agreement pursuant to which a Fundamental Transaction is effected shall include terms requiring any such successor or surviving entity to comply with the provisions of this Section 3(c) and insuring that this Warrant (or any such replacement security) will be similarly adjusted upon any subsequent transaction analogous to a Fundamental Transaction.

d) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

e) Notice to Holders.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to this Section 3, the Company shall promptly deliver to each Holder a notice setting forth the Exercise Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution) on the Common Stock; (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock; (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights; (D) the approval of any stockholders of the Company shall be required in connection with any Fundamental Transaction; (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company; then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last address as it shall appear upon the Warrant Register of the Company, at least ten (10) calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock

of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided, that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. The Holder is entitled to exercise this Warrant during the ten (10)-day period commencing on the date of such notice to the effective date of the event triggering such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material non-public information regarding the Company, the Company shall make such information known to the public through a press release, filing with the Securities and Exchange Commission, or other public announcement prior to or in conjunction with such notice being provided to the Holder.

Section 4. Transfer of Warrant.

a) Transferability. Subject to compliance with any applicable securities laws and to the provisions of Section 7.5 of the Purchase Agreement, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. This Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued. The Holder represents that by accepting this Warrant it understands that this Warrant and any securities obtainable upon exercise of this Warrant have not been registered for sale under Federal or state securities laws and are being offered and sold to the Holder pursuant to one or more exemptions from the registration requirements of such securities laws. The Holder understands that it must bear the economic risk of its investment in this Warrant and any securities obtainable upon exercise of this Warrant for an indefinite period of time, as this Warrant and such securities have not been registered under Federal or state securities laws and therefore cannot be sold unless subsequently registered under such laws, unless an exemption from such registration is available.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants or like tenor in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights or other rights as a stockholder of the Company prior to effectiveness of the exercise hereof.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday, Sunday or a legal holiday, then such action may be taken or such right may be exercised on the next succeeding day not a Saturday, Sunday or legal holiday.

d) Authorized Shares. The Company covenants that during the period the Warrant is outstanding, it will maintain a reserve, free from preemption rights, from its duly authorized shares of Common Stock for issuance upon exercise of this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of executing stock certificates or book entry shares to execute and issue the necessary certificates or book entry shares for the Warrant Shares upon the exercise of the purchase rights under this Warrant. If at any time prior to the Expiry Time the number of authorized but unissued shares of Common Stock shall not be sufficient to permit exercise of this Warrant, the Company will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock (or other securities as provided herein) to such number of shares as shall be sufficient for such purposes.

Except and to the extent waived or consented to by the Holder, the Company hereby covenants to not, by any action, including, without limitation, amending its certificate of incorporation, by-laws or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, and will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (a) not increase the par value of any Warrant Shares above the Exercise Price then in effect and (b) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant.

e) Jurisdiction. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be determined in accordance with the provisions of the Securities Purchase Agreement.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered and if the Holder does not utilize cashless exercise after expiration of the Rule 144 holding period, will contain a legend to the effect that the Warrant Shares are not registered.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice Holder's rights, powers or remedies, notwithstanding the fact that the right to exercise this Warrant terminates on the Expiry Time. If the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorney's fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any notice, request or other document required or permitted to be given or delivered to the Holder by the Company shall be delivered in accordance with the notice provisions of the Securities Purchase Agreement.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by Holder to exercise this Warrant or purchase Warrant Shares, and no enumeration herein of the rights or privileges of Holder, shall give rise to any liability of Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available or granted by law, including recovery of damages. Each of the parties hereto will be entitled to specific performance of its rights under this Warrant. The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holder and agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach or threatened breach by it of the provisions of this Warrant and hereby agrees to waive the defense in any action for specific performance that a remedy at law would be adequate including making a showing of economic loss and the posting of a bond or other security.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of all Holders from time to time of this Warrant and shall be enforceable by any such Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived only with the written consent of the Company and the Holder.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized.

Dated: April 2, 2019

AILERON THERAPEUTICS, INC.

By: _____
Name: Manuel C. Alves Aivado
Title: Chief Executive Officer

NOTICE OF EXERCISE

TO: AILERON THERAPEUTICS, INC.

(1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the Exercise Price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

- in lawful money of the United States; or (if available)
- the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please cause the Warrant Shares to be issued in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number :

(4) Accredited Investor. The undersigned is an “accredited investor” as defined in Regulation D promulgated under the Securities Act of 1933, as amended.

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized Signatory: _____

Title of Authorized Signatory: _____

Date: _____

ASSIGNMENT FORM

(To assign the foregoing warrant, execute this form and supply required information. Do not use this form to exercise the warrant.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to:

whose address is:

Dated: _____, _____

Holder's Signature: _____

Holder's Address: _____

Signature Guaranteed: _____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatsoever, and must be guaranteed by a bank or trust company. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

REGISTRATION RIGHTS AGREEMENT

This REGISTRATION RIGHTS AGREEMENT (this “Agreement”) is made and entered into as of March 28, 2019 by and among Aileron Therapeutics, Inc., a Delaware corporation (the “Company”), and the “Investors” named in that certain Securities Purchase Agreement by and among the Company and the Investors (the “Purchase Agreement”). Capitalized terms used herein have the respective meanings ascribed thereto in the Purchase Agreement unless otherwise defined herein.

The parties hereby agree as follows:

1. Certain Definitions.

As used in this Agreement, the following terms shall have the following meanings:

“Investors” means the Investors identified in the Purchase Agreement and any Affiliate or permitted transferee of any Investor who is a subsequent holder of Registrable Securities.

“Prospectus” means (i) the prospectus included in any Registration Statement, as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by such Registration Statement and by all other amendments and supplements to the prospectus, including post-effective amendments and all material incorporated by reference in such prospectus, and (ii) any “free writing prospectus” as defined in Rule 405 under the 1933 Act.

“Register,” “registered” and “registration” refer to a registration made by preparing and filing a Registration Statement or similar document in compliance with the 1933 Act (as defined below), and the declaration or ordering of effectiveness of such Registration Statement or document.

“Registrable Securities” means (i) the Shares, (ii) the Common Warrant Shares, (iii) the Pre-Funded Warrant Shares and (iv) any other securities issued or issuable with respect to or in exchange for Shares, Common Warrant Shares or Pre-Funded Warrant Shares, whether by merger, charter amendment or otherwise, (v) shares of Common Stock held by trusts and other entities affiliated with Muneer A. Satter as of the date hereof and (vi) any other securities issued or issuable with respect to or in exchange for such shares of Common Stock, whether by merger, charter amendment or otherwise; provided, that, a security shall cease to be a Registrable Security upon (A) sale pursuant to a Registration Statement or Rule 144 under the 1933 Act, or (B) such security becoming eligible for sale without restriction or limitation by such Investor (and any of its Affiliates whose shares must be aggregated with those of such Investor under Rule 144) pursuant to Rule 144 and without the requirement to be in compliance with Rule 144(c)(1) (or any successor thereto) promulgated under the 1933 Act.

“Registration Statement” means any registration statement of the Company under the 1933 Act that covers the resale of any of the Registrable Securities pursuant to the provisions of this Agreement, amendments and supplements to such Registration Statement, including post-effective amendments, all exhibits and all material incorporated by reference in such Registration Statement.

“Required Investors” means the Investors holding a majority of the Registrable Securities outstanding from time to time.

“SEC” means the U.S. Securities and Exchange Commission.

2. Registration.

(a) Registration Statements.

(i) Promptly following the Closing Date but no later than thirty (30) days after the Closing Date (the “Filing Deadline”), the Company shall prepare and file with the SEC one Registration Statement covering the resale of all of the Registrable Securities. Subject to any SEC comments, such Registration Statement shall include the plan of distribution attached hereto as Exhibit A; provided, however, that no Investor shall be named as an “underwriter” in such Registration Statement without the Investor’s prior written consent. Such Registration Statement also shall cover, to the extent allowable under the 1933 Act and the rules promulgated thereunder (including Rule 416), such indeterminate number of additional shares of Common Stock resulting from stock splits, stock dividends or similar transactions with respect to the Registrable Securities. Such Registration Statement (and each amendment or supplement thereto, and each request for acceleration of effectiveness thereof) shall be provided in accordance with Section 3(c) to the Investors prior to its filing or other submission. If such Registration Statement covering all of the Registrable Securities is not filed with the SEC on or prior to the Filing Deadline, the Company will make pro rata payments to each Investor or its designees then holding Registrable Securities, as liquidated damages and not as a penalty, in an amount equal to 1% of the aggregate amount invested by such Investor for each 30-day period or pro rata for any portion thereof following the Filing Deadline for which no such Registration Statement is filed with respect to the Registrable Securities. Such payments shall constitute the Investors’ exclusive monetary remedy for such events, but shall not affect the right of the Investors to seek injunctive relief. Such payments shall be made to each Investor or its designees then holding Registrable Securities in cash no later than three (3) Business Days after the end of each 30-day period (the “Payment Date”). Interest shall accrue at the rate of 1% per month on any such liquidated damages payments that shall not be paid by the applicable Payment Date until such amount is paid in full. Notwithstanding the foregoing, the Company and the Investors agree that the Company will not be liable for any liquidated damages under this Section 2(a)(i) with respect to any Common Warrant Shares or Pre-Funded Warrant Shares prior to their issuance.

(ii) So long as Registrable Securities remain outstanding, promptly following the date (the “Qualification Date”) upon which the Company becomes eligible to use a registration statement on Form S-3 to register the Registrable Securities for resale, but in no event more than thirty (30) days after the Qualification Date (the “Qualification Deadline”), the Company shall file a registration statement on Form S-3 covering all of the Registrable Securities (or a post-effective amendment on Form S-3 to a registration statement on Form S-1) (a “Shelf Registration Statement”) and shall use commercially reasonable efforts to cause such Shelf Registration Statement to be declared effective as promptly as practicable thereafter. Subject to any SEC comments, such Shelf Registration Statement shall include the plan of distribution attached hereto as Exhibit A; provided, however, that no Investor shall be named as

an “underwriter” in such Shelf Registration Statement without the Investor’s prior written consent. Such Shelf Registration Statement also shall cover, to the extent allowable under the 1933 Act and the rules promulgated thereunder (including Rule 416), such indeterminate number of additional shares of Common Stock resulting from stock splits, stock dividends or similar transactions with respect to the Registrable Securities. So long as Registrable Securities remain outstanding, if a Shelf Registration Statement covering the Registrable Securities is not filed with the SEC on or prior to the Qualification Deadline, the Company will make pro rata payments to each Investor or its designees then holding Registrable Securities, as liquidated damages and not as a penalty, in an amount equal to 1% of the aggregate amount invested by such Investor for the Registrable Securities then held by such Investor for each 30-day period or pro rata for any portion thereof following the Qualification Deadline for which no such Registration Statement is filed with respect to the Registrable Securities. Such payments shall constitute the Investors’ exclusive monetary remedy for such events, but shall not affect the right of the Investors to seek injunctive relief. Such payments shall be made to each Investor or its designees then holding Registrable Securities in cash no later than three (3) Business Days after the end of each 30-day period. Interest shall accrue at the rate of 1% per month on any such liquidated damages payments that shall not be paid by the end of each 30-day period until such amount is paid in full. Notwithstanding the foregoing, the Company and the Investors agree that the Company will not be liable for any liquidated damages under this Section 2(a)(ii) with respect to any Common Warrant Shares or Pre-Funded Warrant Shares prior to their issuance.

(b) Expenses. The Company will pay all expenses associated with each Registration Statement, including filing and printing fees, the Company’s counsel and accounting fees and expenses, costs associated with clearing the Registrable Securities for sale under applicable state securities laws and listing fees, but excluding discounts, commissions, fees of underwriters, selling brokers, dealer managers or similar securities industry professionals with respect to the Registrable Securities being sold.

(c) Effectiveness.

(i) The Company shall use commercially reasonable efforts to have each Registration Statement declared effective as soon as practicable. The Company shall notify the Investors by facsimile or e-mail as promptly as practicable, and in any event, within twenty-four (24) hours, after any Registration Statement is declared effective and shall simultaneously provide the Investors with copies of any related Prospectus to be used in connection with the sale or other disposition of the securities covered thereby. If (A)(x) a Registration Statement covering the Registrable Securities that is filed with the SEC pursuant to Section 2(a)(i) is not declared effective by the SEC prior to the earlier of (i) five (5) Business Days after the SEC informs the Company that no review of such Registration Statement will be made or that the SEC has no further comments on such Registration Statement or (ii) the 90th day after the Closing Date (or the 120th day if the SEC reviews such Registration Statement), or (y) a Shelf Registration Statement is not declared effective by the SEC prior to the earlier of (i) five (5) Business Days after the SEC informs the Company that no review of such Shelf Registration Statement will be made or that the SEC has no further comments on such Shelf Registration Statement or (ii) the 90th day after the Qualification Deadline (or the 120th day if the SEC reviews such Shelf Registration Statement), or (B) after a Registration Statement has been declared effective by the SEC, sales cannot be made pursuant to such Registration Statement for

any reason (including without limitation by reason of a stop order, or the Company's failure to update such Registration Statement), but excluding any Allowed Delay (as defined below) or the inability of any Investor to sell the Registrable Securities covered thereby due to market conditions, then the Company will make pro rata payments to each Investor or its designees then holding Registrable Securities, as liquidated damages and not as a penalty, in an amount equal to 1% of the aggregate amount invested by such Investor for the Registrable Securities then held by such Investor for each 30-day period or pro rata for any portion thereof following the date by which such Registration Statement should have been effective (the "Blackout Period"). Such payments shall constitute the Investors' exclusive monetary remedy for such events, but shall not affect the right of the Investors to seek injunctive relief. The amounts payable as liquidated damages pursuant to this paragraph shall be paid monthly within three (3) Business Days of the last day of each month following the commencement of the Blackout Period until the termination of the Blackout Period (the "Blackout Period Payment Date"). Such payments shall be made to each Investor or its designees then holding Registrable Securities in cash. Interest shall accrue at the rate of 1% per month on any such liquidated damages payments that shall not be paid by the Blackout Payment Date until such amount is paid in full. Notwithstanding the foregoing, the Company and the Investors agree that the Company will not be liable for any liquidated damages under this Section 2(c)(i) with respect to any Common Warrant Shares or Pre-Funded Warrant Shares prior to their issuance.

(ii) For not more than fifteen (15) consecutive days or for a total of not more than thirty (30) days in any twelve (12) month period, the Company may suspend the use of any Prospectus included in any Registration Statement contemplated by this Section in the event that the Company determines in good faith that such suspension is necessary to (A) delay the disclosure of material non-public information concerning the Company, the disclosure of which at the time is not, in the good faith opinion of the Company, in the best interests of the Company or (B) amend or supplement the affected Registration Statement or the related Prospectus so that such Registration Statement or Prospectus shall not include 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, in the case of the Prospectus in light of the circumstances under which they were made, not misleading (an "Allowed Delay"); provided, that the Company shall promptly (a) notify each Investor in writing of the commencement of an Allowed Delay, but shall not (without the prior written consent of an Investor) disclose to such Investor any material non-public information giving rise to an Allowed Delay, (b) advise the Investors in writing to cease all sales under such Registration Statement until the end of the Allowed Delay and (c) use commercially reasonable efforts to terminate an Allowed Delay as promptly as practicable.

(d) Rule 415; Cutback. If at any time the SEC takes the position that the offering of some or all of the Registrable Securities in a Registration Statement is not eligible to be made on a delayed or continuous basis under the provisions of Rule 415 under the 1933 Act or requires any Investor to be named as an "underwriter," the Company shall use commercially reasonable efforts to persuade the SEC that the offering contemplated by such Registration Statement is a valid secondary offering and not an offering "by or on behalf of the issuer" as defined in Rule 415 and that none of the Investors is an "underwriter." The Investors shall have the right to select one legal counsel to review and oversee any registration or matters pursuant to this Section 2(d), including participation in any meetings or discussions with the SEC regarding

the SEC's position and to comment on any written submission made to the SEC with respect thereto, which counsel shall be designated by the holders of a majority of the Registrable Securities. No such written submission with respect to this matter shall be made to the SEC to which the Investors' counsel reasonably objects. In the event that, despite the Company's commercially reasonable efforts and compliance with the terms of this Section 2(d), the SEC refuses to alter its position, the Company shall (i) remove from such Registration Statement such portion of the Registrable Securities (the "Cut Back Shares") and/or (ii) agree to such restrictions and limitations on the registration and resale of the Registrable Securities as the SEC may require to assure the Company's compliance with the requirements of Rule 415 (collectively, the "SEC Restrictions"); provided, however, that the Company shall not agree to name any Investor as an "underwriter" in such Registration Statement without the prior written consent of such Investor. Any cut-back imposed on the Investors pursuant to this Section 2(d) shall be allocated among the Investors on a pro rata basis and shall be applied first to any of the Registrable Securities of such Investor as such Investor shall designate, unless the SEC Restrictions otherwise require or provide or the Investors otherwise agree. If the Company has not effected the registration of all of the Cut Back Shares as of the first anniversary of the Closing Date, the Company will remove from any Registration Statement that has been filed but not yet declared effective any Cut Back Shares that have ceased to be Registrable Securities and thereafter only file Registration Statements that cover Cut Back Shares that are Registrable Securities. From and after the Restriction Termination Date (as defined below) applicable to any Cut Back Shares, all of the provisions of this Section 2 (including the Company's obligations with respect to the filing of a Registration Statement and its obligations to use commercially reasonable efforts to have such Registration Statement declared effective within the time periods set forth herein and the liquidated damages provisions relating thereto) shall again be applicable to such Cut Back Shares; provided, however, that (i) the Filing Deadline and/or the Qualification Deadline, as applicable, for such Registration Statement including such Cut Back Shares shall be ten (10) Business Days after such Restriction Termination Date, and (ii) the date by which the Company is required to obtain effectiveness with respect to such Cut Back Shares under Section 2(c) shall be the 90th day immediately after the Restriction Termination Date (or the 120th day if the SEC reviews such Registration Statement) Notwithstanding the foregoing, no liquidated damages shall accrue as to any Cut Back Shares until such date as the Company is able to effect the registration of such Cut Back Shares in accordance with any SEC Restrictions applicable to such Cut Back Shares (such date, the "Restriction Termination Date"); provided, however, that if any Cut Back Shares that are Registrable Securities have not been registered under a Registration Statement that has been declared effective by the SEC as of the first anniversary of the Closing Date, the Company will make pro rata payments to each Investor or its designees then holding such unregistered Cut Back Shares, as liquidated damages and not as a penalty, in an amount equal to 2% of the aggregate amount invested by such Investor for such Cut Back Shares then held by such Investor for each 30-day period or pro rata for any portion thereof following the first anniversary of the Closing Date until such Cut Back Shares are registered. Such payments shall constitute the Investors' exclusive monetary remedy for such events, but shall not affect the right of the Investors to seek injunctive relief. The amounts payable as liquidated damages pursuant to this paragraph shall be paid in cash monthly within three (3) Business Days of the last day of each month following the first anniversary of the Closing Date until registration of the Cut Back Shares. Interest shall accrue at the rate of 1% per month on any such liquidated damages payments that shall not be paid when required until such amount is paid in full. Notwithstanding

the foregoing, the Company and the Investors agree that the Company will not be liable for (i) any liquidated damages under this Section 2(d) with respect to any Common Warrant Shares or Pre-Funded Warrant Shares prior to their issuance or (ii) liquidated damages under Section 2(a) or Section 2(c) (due to a failure to comply with Section 2(c)(i)(A)) with respect to Cut Back Shares after the first anniversary of the Closing Date for which liquidated damages are being paid under this Section 2(d).

3. Company Obligations. The Company will use commercially reasonable efforts to effect the registration of the Registrable Securities in accordance with the terms hereof, and pursuant thereto the Company will, as expeditiously as possible:

(a) use commercially reasonable efforts to cause such Registration Statement to become effective and to remain continuously effective for a period that will terminate upon the earlier of (i) the date on which all Registrable Securities covered by such Registration Statement as amended from time to time, have been sold, and (ii) the date on which all Registrable Securities covered by such Registration Statement may be sold without restriction or limitation pursuant to Rule 144 and without the requirement to be in compliance with Rule 144(c)(1) (or any successor thereto) promulgated under the 1933 Act (the "Effectiveness Period") and advise the Investors promptly in writing when the Effectiveness Period has expired;

(b) prepare and file with the SEC such amendments and post-effective amendments to such Registration Statement and the related Prospectus as may be necessary to keep such Registration Statement effective for the Effectiveness Period and to comply with the provisions of the 1933 Act and the 1934 Act with respect to the distribution of all of the Registrable Securities covered thereby;

(c) provide copies to and permit any counsel designated by the Investors to review each Registration Statement and all amendments and supplements thereto no fewer than three (3) Business Days prior to their filing with the SEC and not file any document to which such counsel reasonably objects;

(d) furnish to each Investor whose Registrable Securities are included in any Registration Statement (i) promptly after the same is prepared and filed with the SEC, if requested by the Investor, one (1) copy of any Registration Statement and any amendment thereto, each preliminary prospectus and Prospectus and each amendment or supplement thereto, and each letter written by or on behalf of the Company to the SEC or the staff of the SEC, and each item of correspondence from the SEC or the staff of the SEC, in each case relating to such Registration Statement (other than any portion of any thereof which contains information for which the Company has sought confidential treatment), and (ii) such number of copies of a Prospectus, including a preliminary prospectus, and all amendments and supplements thereto and such other documents as each Investor may reasonably request in order to facilitate the disposition of the Registrable Securities owned by such Investor that are covered by such Registration Statement;

(e) use commercially reasonable efforts to (i) prevent the issuance of any stop order or other suspension of effectiveness and, (ii) if such order is issued, obtain the withdrawal of any such order at the earliest practical moment;

(f) prior to any public offering of Registrable Securities, use commercially reasonable efforts to register or qualify or cooperate with the Investors and their counsel in connection with the registration or qualification of such Registrable Securities for the offer and sale under the securities or blue sky laws of such jurisdictions requested by the Investors and do any and all other commercially reasonable acts or things necessary or advisable to enable the distribution in such jurisdictions of the Registrable Securities covered by the Registration Statement; provided, however, that the Company shall not be required in connection therewith or as a condition thereto to (i) qualify to do business in any jurisdiction where it would not otherwise be required to qualify but for this Section 3(f), (ii) subject itself to general taxation in any jurisdiction where it would not otherwise be so subject but for this Section 3(f), or (iii) file a general consent to service of process in any such jurisdiction;

(g) use commercially reasonable efforts to cause all Registrable Securities covered by a Registration Statement to be listed on each securities exchange, interdealer quotation system or other market on which similar securities issued by the Company are then listed;

(h) use its commercially reasonable efforts to facilitate an underwritten block trade if a Major Investor notifies the Company in writing of such underwritten block trade at least five Business Days prior to the date that such block trade is to commence;

(i) promptly notify the Investors, at any time prior to the end of the Effectiveness Period, upon discovery that, or upon the happening of any event as a result of which, the Prospectus includes an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing, and promptly prepare, file with the SEC and furnish to such holder a supplement to or an amendment of such Prospectus as may be necessary so that such Prospectus shall not include 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 in light of the circumstances then existing;

(j) otherwise use commercially reasonable efforts to comply with all applicable rules and regulations of the SEC under the 1933 Act and the 1934 Act, including, without limitation, Rule 172 under the 1933 Act, file any final Prospectus, including any supplement or amendment thereof, with the SEC pursuant to Rule 424 under the 1933 Act, promptly inform the Investors in writing if, at any time during the Effectiveness Period, the Company does not satisfy the conditions specified in Rule 172 and, as a result thereof, the Investors are required to deliver a Prospectus in connection with any disposition of Registrable Securities and take such other actions as may be reasonably necessary to facilitate the registration of the Registrable Securities hereunder; and make available to its security holders, as soon as reasonably practicable, but not later than the Availability Date (as defined below), an earnings statement covering a period of at least twelve (12) months, beginning after the effective date of each Registration Statement, which earnings statement shall satisfy the provisions of Section 11(a) of the 1933 Act, including Rule 158 promulgated thereunder (for the purpose of this subsection 3(i), "Availability Date" means the 45th day following the end of the fourth fiscal quarter that includes the effective date of such Registration Statement, except that, if such fourth fiscal quarter is the last quarter of the Company's fiscal year, "Availability Date" means the 90th day after the end of such fourth fiscal quarter); and

(k) with a view to making available to the Investors the benefits of Rule 144 (or its successor rule) and any other rule or regulation of the SEC that may at any time permit the Investors to sell shares of Common Stock to the public without registration, the Company covenants and agrees to: (i) make and keep public information available, as those terms are understood and defined in Rule 144, until the earlier of (A) six months after such date as all of the Registrable Securities may be sold without restriction by the holders thereof pursuant to Rule 144 or any other rule of similar effect or (B) such date as all of the Registrable Securities shall have been resold; (ii) file with the SEC in a timely manner all reports and other documents required of the Company under the 1934 Act; and (iii) furnish to each Investor upon request, as long as such Investor owns any Registrable Securities, (A) a written statement by the Company that it has complied with the reporting requirements of the 1934 Act, (B) a copy of the Company's most recent Annual Report on Form 10-K or Quarterly Report on Form 10-Q, and (C) such other information as may be reasonably requested in order to avail such Investor of any rule or regulation of the SEC that permits the selling of any such Registrable Securities without registration.

4. Due Diligence Review; Information. The Company shall, upon reasonable prior notice, make available, during normal business hours, for inspection and review by the Investors, advisors to and representatives of the Investors (who may or may not be affiliated with the Investors and who are reasonably acceptable to the Company) (collectively, the "Inspectors"), all pertinent financial and other records, and all other corporate documents and properties of the Company (collectively, the "Records") as may be reasonably necessary for the purpose of such review, and cause the Company's officers, directors and employees, within a reasonable time period, to supply all such information reasonably requested by the Inspectors (including, without limitation, in response to all questions and other inquiries reasonably made or submitted by any of them), prior to and from time to time after the filing and effectiveness of such Registration Statement for the sole purpose of enabling the Investors and their accountants and attorneys to conduct initial and ongoing due diligence with respect to the Company and the accuracy of such Registration Statement; provided, however, that each Inspector shall agree to hold in strict confidence and shall not make any disclosure (except to such Investor) or use of any Record or other information which the Company determines in good faith to be confidential, and of which determination the Inspectors are so notified, unless (a) the disclosure of such Records is necessary to avoid or correct a misstatement or omission in any Registration Statement or is otherwise required under the 1933 Act, (b) the release of such Records is ordered pursuant to a final, non-appealable subpoena or order from a court or government body of competent jurisdiction, or (c) the information in such Records has been made generally available to the public other than by disclosure in violation of this Section 4 or any other Transaction Document.

Notwithstanding the foregoing, the Company shall not disclose material nonpublic information to the Investors, or to advisors to or representatives of the Investors, unless prior to disclosure of such information the Company identifies such information as being material nonpublic information and provides the Investors, such advisors and representatives with the opportunity to accept or refuse to accept such material nonpublic information for review and any Investor wishing to obtain such information enters into an appropriate confidentiality agreement with the Company with respect thereto.

5. Obligations of the Investors.

(a) Each Investor shall furnish in writing to the Company such information regarding itself, the Registrable Securities held by it and the intended method of disposition of the Registrable Securities held by it, as shall be reasonably required to effect the registration of such Registrable Securities and shall execute such documents in connection with such registration as the Company may reasonably request. At least ten (10) Business Days prior to the first anticipated filing date of any Registration Statement, the Company shall notify each Investor of the information the Company requires from such Investor if such Investor elects to have any of the Registrable Securities included in such Registration Statement. An Investor shall provide such information to the Company at least two (2) Business Days prior to the first anticipated filing date of such Registration Statement if such Investor elects to have any of the Registrable Securities included in such Registration Statement.

(b) Each Investor, by its acceptance of the Registrable Securities, agrees to cooperate with the Company as reasonably requested by the Company in connection with the preparation and filing of a Registration Statement hereunder, unless such Investor has notified the Company in writing of its election to exclude all of its Registrable Securities from such Registration Statement.

(c) Each Investor agrees that, upon receipt of any notice from the Company of either (i) the commencement of an Allowed Delay pursuant to Section 2(c)(i) or (ii) the happening of an event pursuant to Section 3(h) hereof, such Investor will immediately discontinue disposition of Registrable Securities pursuant to any Registration Statement covering such Registrable Securities, until the Investor is advised by the Company that such dispositions may again be made.

(d) Each Investor covenants and agrees that it will comply with the prospectus delivery requirements of the 1933 Act as applicable to it or an exemption therefrom in connection with sales of Registrable Securities pursuant to any Registration Statement.

6. Indemnification.

(a) Indemnification by the Company. The Company will indemnify and hold harmless each Investor and its officers, directors, members, employees and agents, successors and assigns, and each other person, if any, who controls such Investor within the meaning of the 1933 Act, against any losses, claims, damages or liabilities, joint or several, to which they may become subject under the 1933 Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon: (i) any untrue statement or alleged untrue statement or omission or alleged omission of any material fact contained in any Registration Statement, any preliminary Prospectus or final Prospectus, or any amendment or supplement thereof; (ii) any blue sky application or other document executed by the Company specifically for that purpose or based upon written information furnished by the Company filed in any state or other jurisdiction in order to qualify any or all of the Registrable Securities under

the securities laws thereof (any such application, document or information herein called a "Blue Sky Application"); (iii) the omission or alleged omission to state in a Blue Sky Application a material fact required to be stated therein or necessary to make the statements therein not misleading; (iv) any violation by the Company or its agents of any rule or regulation promulgated under the 1933 Act applicable to the Company or its agents and relating to action or inaction required of the Company in connection with such registration; or (v) any failure to register or qualify the Registrable Securities included in any such Registration Statement in any state where the Company or its agents has affirmatively undertaken or agreed in writing that the Company will undertake such registration or qualification on an Investor's behalf and will reimburse such Investor, and each such officer, director or member and each such controlling person for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the Company will not be liable in any such case if and to the extent that any such loss, claim, damage or liability arises out of or is based upon (i) an untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by such Investor or any such controlling person in writing specifically for use in such Registration Statement or Prospectus, (ii) the use by an Investor of an outdated or defective Prospectus after the Company has notified such Investor in writing that such Prospectus is outdated or defective or (iii) an Investor's failure to send or give a copy of the Prospectus or supplement (as then amended or supplemented), if required (and not exempted) to the Persons asserting an untrue statement or omission or alleged untrue statement or omission at or prior to the written confirmation of the sale of Registrable Securities.

(b) Indemnification by the Investors. Each Investor agrees, severally but not jointly, to indemnify and hold harmless, to the fullest extent permitted by law, the Company, its directors, officers, employees, stockholders and each person who controls the Company (within the meaning of the 1933 Act) against any losses, claims, damages, liabilities and expense (including reasonable attorney fees) resulting from any untrue statement of a material fact or any omission of a material fact required to be stated in any Registration Statement or Prospectus or preliminary Prospectus or amendment or supplement thereto or necessary to make the statements therein not misleading, to the extent, but only to the extent that such untrue statement or omission is contained in any information furnished in writing by such Investor to the Company specifically for inclusion in such Registration Statement or Prospectus or amendment or supplement thereto. In no event shall the liability of an Investor be greater in amount than the dollar amount of the proceeds (net of all expense paid by such Investor in connection with any claim relating to this Section 6 and the amount of any damages such Investor has otherwise been required to pay by reason of such untrue statement or omission) received by such Investor upon the sale of the Registrable Securities included in such Registration Statement giving rise to such indemnification obligation.

(c) Conduct of Indemnification Proceedings. Any person entitled to indemnification hereunder shall (i) give prompt notice to the indemnifying party of any claim with respect to which it seeks indemnification and (ii) permit such indemnifying party to assume the defense of such claim with counsel reasonably satisfactory to the indemnified party; provided that any person entitled to indemnification hereunder shall have the right to employ separate counsel and to participate in the defense of such claim, but the fees and expenses of such counsel shall be at the expense of such person unless (a) the indemnifying party has agreed to pay such

fees or expenses, (b) the indemnifying party shall have failed to assume the defense of such claim and employ counsel reasonably satisfactory to such person or (c) in the reasonable judgment of any such person, based upon written advice of its counsel, a conflict of interest exists between such person and the indemnifying party with respect to such claims (in which case, if the person notifies the indemnifying party in writing that such person elects to employ separate counsel at the expense of the indemnifying party, the indemnifying party shall not have the right to assume the defense of such claim on behalf of such person); and provided, further, that the failure of any indemnified party to give notice as provided herein shall not relieve the indemnifying party of its obligations hereunder, except to the extent that such failure to give notice shall materially adversely affect the indemnifying party in the defense of any such claim or litigation. It is understood that the indemnifying party shall not, in connection with any proceeding in the same jurisdiction, be liable for fees or expenses of more than one separate firm of attorneys at any time for all such indemnified parties. No indemnifying party will, except with the consent of the indemnified party, which shall not be unreasonably withheld or conditioned, consent to entry of any judgment or enter into any settlement that does not include as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified party of a release from all liability in respect of such claim or litigation.

(d) Contribution. If for any reason the indemnification provided for in the preceding paragraphs (a) and (b) is unavailable to an indemnified party or insufficient to hold it harmless, other than as expressly specified therein, then the indemnifying party shall contribute to the amount paid or payable by the indemnified party as a result of such loss, claim, damage or liability in such proportion as is appropriate to reflect the relative fault of the indemnified party and the indemnifying party, as well as any other relevant equitable considerations. No person guilty of fraudulent misrepresentation within the meaning of Section 11(f) of the 1933 Act shall be entitled to contribution from any person not guilty of such fraudulent misrepresentation. In no event shall the contribution obligation of a holder of Registrable Securities be greater in amount than the dollar amount of the proceeds (net of all expenses paid by such holder in connection with any claim relating to this Section 6 and the amount of any damages such holder has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission) received by it upon the sale of the Registrable Securities giving rise to such contribution obligation.

7. Miscellaneous.

(a) Effective Date. This Agreement shall be effective as of the Closing, and if the Closing has not occurred on or prior to fifth Trading Day following the date of the Securities Purchase Agreement, unless otherwise mutually agreed, then this Agreement shall be null and void.

(b) Amendments and Waivers. This Agreement may be amended only by a writing signed by the Company and the Required Investors. The Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company shall have obtained the written consent to such amendment, action or omission to act, of the Required Investors. Notwithstanding the foregoing, this Agreement may not be amended and the observance of any term of this Agreement may not be waived with respect to any Investor without the written consent of such Investor unless such amendment or waiver applies to all Investors in the same fashion.

(c) Notices. All notices and other communications provided for or permitted hereunder shall be made as set forth in Section 9.4 of the Purchase Agreement.

(d) Assignments and Transfers by Investors. The provisions of this Agreement shall be binding upon and inure to the benefit of the Investors and their respective successors and assigns. An Investor may transfer or assign, in whole or from time to time in part, to one or more persons its rights hereunder in connection with the transfer of Registrable Securities by such Investor to such person, provided that such Investor complies with all laws applicable thereto, and the provisions of the Purchase Agreement, and provides written notice of assignment to the Company promptly after such assignment is effected, and such person agrees in writing to be bound by all of the provisions contained herein.

(e) Assignments and Transfers by the Company. This Agreement may not be assigned by the Company (whether by operation of law or otherwise) without the prior written consent of the Required Investors, provided, however, that in the event that the Company is a party to a merger, consolidation, share exchange or similar business combination transaction in which the Common Stock is converted into the equity securities of another Person, from and after the effective time of such transaction, such Person shall, by virtue of such transaction, be deemed to have assumed the obligations of the Company hereunder, the term "Company" shall be deemed to refer to such Person and the term "Registrable Securities" shall be deemed to include the securities received by the Investors in connection with such transaction unless such securities are otherwise freely tradable by the Investors after giving effect to such transaction.

(f) Benefits of the Agreement. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective permitted successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

(g) Counterparts; Faxes. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may also be executed via facsimile, which shall be deemed an original.

(h) Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

(i) Severability. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof but shall be interpreted as if it were written so as to be enforceable to the maximum extent permitted by applicable law, and any such prohibition or unenforceability in any jurisdiction shall not

invalidate or render unenforceable such provision in any other jurisdiction. To the extent permitted by applicable law, the parties hereby waive any provision of law which renders any provisions hereof prohibited or unenforceable in any respect.

(j) Further Assurances. The parties shall execute and deliver all such further instruments and documents and take all such other actions as may reasonably be required to carry out the transactions contemplated hereby and to evidence the fulfillment of the agreements herein contained.

(k) Entire Agreement. This Agreement is intended by the parties as a final expression of their agreement and intended to be a complete and exclusive statement of the agreement and understanding of the parties hereto in respect of the subject matter contained herein. This Agreement supersedes all prior agreements and understandings between the parties with respect to such subject matter.

(l) Governing Law; Consent to Jurisdiction; Waiver of Jury Trial. This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the choice of law principles thereof. Each of the parties hereto irrevocably submits to the exclusive jurisdiction of the courts of the State of New York located in New York County and the United States District Court for the Southern District of New York for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Agreement and the transactions contemplated hereby. Service of process in connection with any such suit, action or proceeding may be served on each party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Agreement. Each of the parties hereto irrevocably consents to the jurisdiction of any such court in any such suit, action or proceeding and to the laying of venue in such court. Each party hereto irrevocably waives any objection to the laying of venue of any such suit, action or proceeding brought in such courts and irrevocably waives any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. EACH OF THE PARTIES HERETO WAIVES ANY RIGHT TO REQUEST A TRIAL BY JURY IN ANY LITIGATION WITH RESPECT TO THIS AGREEMENT AND REPRESENTS THAT COUNSEL HAS BEEN CONSULTED SPECIFICALLY AS TO THIS WAIVER.

[remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties have executed this Agreement or caused their duly authorized officers to execute this Agreement as of the date first above written.

COMPANY:

AILERON THERAPEUTICS, INC.

By: /s/ Manuel C. Alves Aivado

Name: Manuel C. Alves Aivado

Title: Chief Executive Officer

INVESTOR:

SATTER MEDICAL TECHNOLOGY PARTNERS, L.P.

By: Satter Medical Technology GP, L.P
Its: General Partner

By: Satter Medical Technology UGP, LLC
Its: General Partner

By: Muneer A. Satter Revocable Trust
Its: Managing Member

By: /s/ Muneer A. Satter

Name: Muneer A. Satter

Title: Trustee

INVESTOR:

ARMISTICE CAPITAL MASTERFUND LLC

By: /s/ Anthony Cordone

Name: Anthony Cordone

Title: CFO

INVESTOR:

Jennison Global Healthcare Master Fund, Ltd.

By: Jennison Associates LLC, as the Investment Manager of Jennison
Global Healthcare Master Fund, Ltd.

By: /s/ David Chan

Name: David Chan

Title: Managing Director of Jennison Associates LLC

INVESTOR:

Prudential Sector Funds, Inc. – PGIM Jennison Health Sciences Fund

By: Jennison Associates LLC, as the Subadvisor of Prudential Sector
Funds, Inc. – PGIM Jennison Health Sciences Fund

By: /s/ David Chan

Name: David Chan

Title: Managing Director of Jennison Associates LLC

INVESTOR:

Jenop Global Healthcare Fund Limited

By: Jennison Associates LLC, as the Investment Manager of Jenop Global
Healthcare Fund Limited

By: /s/ David Chan

Name: David Chan

Title: Managing Director of Jennison Associates LLC

INVESTOR:

By: /s/ Scott Kapnick

Name: Scott Kapnick

Title:

INVESTOR:

SABBY VOLATILITY WARRANT MASTER FUND, LTD.

By: /s/ Robert Grundstein

Name: Robert Grundstein

Title: COO of Investment Manager

INVESTOR:

SIGMA EMERGING MARKETS LTD.

By: /s/ Rafael Urquia II

Name: Rafael Urquia II

Title: Secretary

INVESTOR:

CVF, LLC

By: /s/ Gerrit Adams

Name: Gerrit Adams

Title: Senior Associate

INVESTOR: Empery Asset Master, LTD
By: Empery Asset Management, LP, its authorized agent
By: /s/ Brett S. Director
Name: Brett S. Director
Title: General Counsel of Empery Asset Management, LP

INVESTOR: Empery Tax Efficient, LP
By: Empery Asset Management, LP, its authorized agent
By: /s/ Brett S. Director
Name: Brett S. Director
Title: General Counsel of Empery Asset Management, LP

INVESTOR: Empery Tax Efficient II, LP
By: Empery Asset Management, LP, its authorized agent
By: /s/ Brett S. Director
Name: Brett S. Director
Title: General Counsel of Empery Asset Management, LP

INVESTOR: Lincoln Park Capital Fund, LLC
By: Lincoln Park Capital LLC
By: Rockledge Capital Corporation
By: /s/ Joshua Scheinfeld
Name: Joshua Scheinfeld
Title: President

INVESTOR: DAFNA Lifescience LP
By: /s/ Fariba Ghodsian
Name: Fariba Ghodsian
Title: C.I.O.

INVESTOR: DAFNA Lifescience Select LP
By: /s/ Fariba Ghodsian
Name: Fariba Ghodsian
Title: C.I.O.

INVESTOR: Intracoastal Capital LLC
By: /s/ Keith Goodman
Name: Keith Goodman
Title: Authorized Signatory

INVESTOR: CVI Investments Inc.
By: Heights Capital Management Its Authorized Agent
By: /s/ Martin Kobinger
Name: Martin Kobinger
Title: Investment Manager

INVESTOR: By: /s/ Josef von Rickenbach
Name: Josef von Rickenbach
Title: Mg. Dir.

INVESTOR: Terry J. Gottlieb Revocable Trust
By: /s/ Terry Gottlieb
Name: Terry Gottlieb
Title: Trustee

Plan of Distribution

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales effected after the date the registration statement of which this prospectus is a part is declared effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted by applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering. Upon any exercise of the warrants by payment of cash, however, we will receive the exercise price of the warrants.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act of 1933, provided that they meet the criteria and conform to the requirements of that rule.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be “underwriters” within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are “underwriters” within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, to the extent applicable we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with such registration statement or (2) the date on which all of the shares may be sold without restriction pursuant to Rule 144 of the Securities Act.

Aileron Therapeutics Announces Pricing of \$26M Private Placement

WATERTOWN, Mass., March 29, 2019 (GLOBE NEWSWIRE) — Aileron Therapeutics (NASDAQ: ALRN), the clinical-stage leader in the field of stabilized cell-permeating peptides to treat cancer and other diseases, announced today that it has entered into a securities purchase agreement with a group of institutional accredited investors for the private placement of \$26 million of Aileron common stock and warrants. The private placement is expected to close on or about April 2, 2019 subject to the satisfaction of customary closing conditions.

The private placement was led by Satter Medical Technology Partners, L.P. with significant additional participation from Jennison Associates (on behalf of certain clients) and an undisclosed institutional investor, in addition to other new and existing investors.

The Company is selling in the private placement 11,838,582 units, consisting of 11,838,582 shares of common stock and associated warrants to purchase 11,838,582 shares of common stock, for a combined price of \$2.01 per unit. In addition, the Company is also selling in the private placement 1,096,741 units, consisting of pre-funded warrants to purchase 1,096,741 shares of common stock and associated warrants to purchase 1,096,741 shares of common stock, for a combined price of \$2.01 per unit.

William Blair & Company, L.L.C. will act as sole placement agent in connection with the financing.

Aileron expects to receive aggregate gross proceeds of approximately \$26 million, before deducting placement agent fees and offering expenses, and excluding the exercise of any warrants. Aileron expects to use the net proceeds from the financing to fund the further advancement of its ALRN-6924 clinical trials and research programs, including its ongoing clinical trial collaboration with Pfizer testing ALRN-6924 in combination with palbociclib in MDM2-amplified cancers and its planned Phase 1b/2 clinical trial to evaluate ALRN-6924 as a myelopreservative agent, to protect against chemotherapy-induced toxicity. This use of proceeds reflects Aileron's determination to cease enrollment and clinical development in AML/MDS in light of the Company's resources and its assessment of the commercial opportunities, as well as the changed competitive landscape where seven drugs were approved for AML in the United States in the last two years.

The securities to be sold in the private placement have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), or applicable state securities laws, and accordingly may not be offered or sold in the United States except pursuant to an effective registration statement or an applicable exemption from the registration requirements of the Securities Act and such applicable state securities laws. Aileron has agreed to file a registration statement with the Securities and Exchange Commission registering the resale of the shares of

common stock issued in the private placement and the shares of common stock issuable upon the exercise of the warrants issued in the private placement.

This release does not constitute an offer to sell or the solicitation of an offer to buy the securities, nor shall there be any sale of the securities in any state in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of such state. Any offering of the securities under the resale registration statement will only be by means of a prospectus.

About Aileron

Aileron is a clinical-stage biopharmaceutical company advancing a proprietary platform of cell-permeating alpha-helical peptides that address the most important intracellular targets in oncology and other therapeutic areas. Its most advanced product candidate, ALRN-6924, is a first-in-class, clinical-stage, stabilized cell-permeating alpha-helical peptide that mimics the p53 tumor suppressor protein to disrupt its interactions with MDM2 and MDMX and, for p53 wild-type tumors, can restore p53-dependent tumor suppression. ALRN-6924 is currently being evaluated in multiple clinical trials for the treatment of various cancers, including MDM2-amplified cancers.

Forward-Looking Statements

Statements in this press release about Aileron's future expectations, plans and prospects, as well as any other statements regarding matters that are not historical facts, including statements about the expected closing of the private placement, Aileron's financial prospects, anticipated use of proceeds, and future operations and sufficiency of funds for future operations, may constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. These statements include, but are not limited to, statements about the Company's strategy, financing, and clinical development plans. The words "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including whether Aileron's cash resources will be sufficient to fund its continuing operations for the periods and/or trials anticipated; whether the conditions for the closing of the private placement will be satisfied; whether results obtained in preclinical studies and clinical trials will be indicative of results obtained in future clinical trials; whether Aileron's product candidates will advance through the clinical trial process on a timely basis, or at all; whether the results of such trials will warrant submission for approval from the United States Food and Drug Administration or equivalent foreign regulatory agencies; whether Aileron's product candidates will receive approval from regulatory agencies on a timely basis or at all; whether, if product candidates obtain

approval, they will be successfully distributed and marketed; whether the Company will be able to enter into additional collaborations; and other factors discussed in the “Risk Factors” section of Aileron’s annual report on Form 10-K for the period ended December 31, 2018, filed on March 29, 2019, and risks described in other filings that Aileron may make with the Securities and Exchange Commission. Any forward-looking statements contained in this press release speak only as of the date hereof, and Aileron specifically disclaims any obligation to update any forward-looking statement, whether because of new information, future events or otherwise.