

**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): September 11, 2019

ZIOPHARM Oncology, Inc.

(Exact Name of Registrant as Specified in Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-33038
(Commission
File Number)

84-1475642
(IRS Employer
Identification No.)

One First Avenue, Parris Building 34, Navy Yard Plaza
Boston, Massachusetts
(Address of Principal Executive Offices)

02129
(Zip Code)

(617) 259-1970
(Registrant's telephone number, including area code)

Not applicable
(Former Name or Former Address, if Changed Since Last Report)

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

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

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

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

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act (17 CFR 230.405) or Rule 12b-2 of the Exchange Act (17 CFR 240.12b-2).

Emerging growth company

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

Item 1.01 Entry into a Material Definitive Agreement.

On September 11, 2019, Ziopharm Oncology, Inc. (the “Company”) entered into a securities issuance agreement (the “Securities Agreement”) with an institutional and accredited investor (the “Investor”) who is a holder of warrants to purchase the Company’s common stock that were issued in November 2018 (the “Existing Warrants”), pursuant to which (i) the Investor agreed to exercise their remaining Existing Warrants for an aggregate of 2,787,879 shares of common stock, at an exercise price of \$3.01 per share and (ii) the Company agreed to issue to the Investor new warrants to purchase 2,787,879 additional shares of the Company’s common stock, at an exercise price of \$7.00 per share (the “New Warrants”), for gross proceeds to the Company of approximately \$8.4 million (collectively referred to as the “Private Placement”). The Private Placement closed on September 13, 2019. The form of Securities Agreement, New Warrants and Registration Rights Agreement (as defined below) are substantially similar to the terms of the private placement transaction closed by the Company in August 2019 and described in the Current Report on Form 8-K filed with the Securities and Exchange Commission (the “SEC”) on August 1, 2019.

The New Warrants issued to the Investor on the closing date of the Private Placement will become exercisable on the date that is six months following the date of issuance and will have a term of five years from the date of issuance. The New Warrants may be exercised by cashless exercise or by payment of cash, subject to adjustment therein. Subject to limited exceptions, a New Warrant holder will not have the right to exercise any portion of its New Warrants if the New Warrant holder, together with its affiliates, would beneficially own in excess of 9.99% of the number of shares of common stock outstanding immediately after giving effect to such exercise (the “Beneficial Ownership Limitation”); provided, however, that upon 61 days’ prior notice to the Company, the New Warrant holder may increase, decrease or terminate the Beneficial Ownership Limitation. The Securities Agreement also contains representations, warranties, indemnification and other provisions customary for transactions of this nature.

The securities issued by the Company pursuant to the Securities Agreement and to be issued upon exercise of the New Warrants have not been registered under the Securities Act of 1933, as amended (the “Securities Act”) and may not be offered or sold in the United States absent registration or an applicable exemption from registration requirements. The Company is relying on the private placement exemption from registration provided by Section 4(a)(2) of the Securities Act and by Rule 506 of Regulation D, promulgated thereunder and on similar exemptions under applicable state laws. The Company will file a Form D with the SEC in accordance with the requirements of Regulation D.

Registration Rights Agreement

In connection with the Private Placement, the Company also entered into a registration rights agreement, dated September 11, 2019 (the “Registration Rights Agreement”) with the Investor. Pursuant to the terms of the Registration Rights Agreement, the Company has agreed to prepare and file a registration statement (the “Registration Statement”) with the SEC within 60 business days after the closing of the Private Placement for the purposes of registering the resale of the common stock underlying the New Warrants. The Company has also agreed, among other things, to pay all fees and expenses (excluding any legal fees of the selling holder(s), and any underwriting discounts and selling commissions) incident to the Company’s obligations under the Registration Rights Agreement.

Item 3.02 Unregistered Sales of Equity Securities.

The information contained in Item 1.01 of this Current Report on Form 8-K is incorporated by reference into this Item 3.02.

Item 7.01 Regulation FD Disclosure.

Given its current development plans, the Company anticipates its cash resources will be sufficient to fund operations into the first half of 2021. The Company’s expectations regarding its cash resources constitutes a forward-looking statement as defined in the Private Securities Litigation Reform Act of 1995, as amended.

Although the Company's management team believes that the expectations reflected in such forward-looking statement are reasonable, investors are cautioned that forward-looking information and statements are subject to various risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results and developments to differ materially from those expressed in, or implied or projected by, the forward-looking statements. These risks and uncertainties include among other things, changes in the Company's operating plans that may impact the Company's cash expenditures, as well as risk factors discussed or identified in the Company's public filings with the SEC. The Company does not undertake any obligation to update or revise the information contained in this Current Report on Form 8-K whether as a result of new information, future events or any other reason.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
4.1	Form of New Warrant to Purchase Common Stock (September 2019).
10.1	Form of Securities Issuance Agreement (September 2019).
10.2	Form of Registration Rights Agreement (September 2019).

SIGNATURES

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

ZIOPHARM ONCOLOGY, INC.

By: /s/ Robert Hadfield

Name: Robert Hadfield

Title: General Counsel and Secretary

Date: September 13, 2019

[FORM OF WARRANT]

NEITHER THE ISSUANCE AND SALE OF THE SECURITIES REPRESENTED BY THIS INSTRUMENT NOR THE SECURITIES INTO WHICH THESE SECURITIES ARE EXERCISABLE HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR (B) AN OPINION OF COUNSEL IN A FORM REASONABLY ACCEPTABLE TO THE COMPANY, THAT REGISTRATION IS NOT REQUIRED UNDER SAID ACT OR (II) UNLESS SOLD PURSUANT TO RULE 144 OR RULE 144A UNDER SAID ACT. NOTWITHSTANDING THE FOREGOING, THE SECURITIES MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN OR FINANCING ARRANGEMENT SECURED BY THE SECURITIES.

ZIOPHARM ONCOLOGY, INC.
WARRANT TO PURCHASE COMMON STOCK

Warrant No.: 2019-

Number of Shares of Common Stock: _____

Date of Issuance: September [•], 2019 (“**Issuance Date**”)

ZIOPHARM Oncology, Inc., a corporation organized under the laws of Delaware (the “**Company**”), hereby certifies that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, [PURCHASER], the registered holder hereof or its permitted assigns (the “**Holder**”), is entitled, subject to the terms set forth below, to purchase from the Company, at the Exercise Price (as defined below) then in effect, upon surrender of this Warrant to Purchase Common Stock (including any Warrants to Purchase Common Stock issued in exchange, transfer or replacement hereof, the “**Warrant**”), at any time or times on or after the six month anniversary of the Issuance Date (the “**Initial Exercise Date**”), but not after 11:59 p.m., New York time, on the Expiration Date (as defined below), [•] fully paid nonassessable shares of Common Stock (as defined below) (the “**Warrant Shares**”). Certain capitalized terms used in this Warrant are defined in Section 15. Except as otherwise defined herein, capitalized terms in this Warrant shall have the meanings set forth in the Securities Issuance Agreement (as defined below). This Warrant is being (the “**SIA Warrant**”) issued pursuant to that certain Securities Issuance Agreement, dated as of September 12, 2019 (the “**Subscription Date**”), by and between the Company and the purchaser (the “**Purchaser**”) referred to therein (the “**Securities Issuance Agreement**”).

1. EXERCISE OF WARRANT.

(a) Mechanics of Exercise. Subject to the terms and conditions hereof, this Warrant may be exercised by the Holder on any day on or after the Initial Exercise Date but not after 11:59 p.m., New York time, on the Expiration Date, in whole or in part, by (i) delivery of a written notice, in the form attached hereto as Exhibit A (an “**Exercise Notice**”), of the Holder’s election to exercise this Warrant and (ii) payment to the Company of an amount equal to the applicable Exercise Price multiplied by the number of Warrant Shares as to which this Warrant is being exercised (the “**Aggregate Exercise Price**”) in cash or by wire transfer of immediately available funds. The Holder shall not be required to deliver the original Warrant in order to effect an exercise hereunder. Execution and delivery of the Exercise Notice with respect to less than all of the Warrant Shares shall have the same effect as cancellation of the original Warrant and issuance of a new Warrant evidencing the right to purchase the remaining number of Warrant Shares. On or before the second (2nd) Business Day following the date on which the Company has received each of the Exercise Notice and the Aggregate Exercise Price (together, the “**Exercise Delivery Documents**”), the Company shall transmit by electronic mail an acknowledgment of confirmation of receipt of the Exercise Delivery Documents to the Holder and the Company’s transfer agent (the “**Transfer Agent**”). On or before the third (3rd) Business Day following the date on which the Company has received all of the Exercise Delivery Documents (the “**Share Delivery Date**”), the Company shall instruct the Transfer Agent to issue and dispatch by overnight courier to the address as specified in the Exercise Notice, a certificate, registered in the Company’s share register in the name of the Holder or its designee, for the number of shares of Common Stock to which the Holder is entitled pursuant to such exercise. Upon delivery of the Exercise Delivery Documents, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the certificates evidencing such Warrant Shares. If this Warrant is submitted in connection with any exercise pursuant to this Section 1(a) and the number of Warrant Shares represented by this Warrant submitted for exercise is greater than the number of Warrant Shares being acquired upon an exercise, then the Company shall as soon as practicable and in no event later than three (3) Business Days after any exercise and at its own expense, issue a new Warrant (in accordance with Section 7(d)) representing the right to purchase the number of Warrant Shares purchasable immediately prior to such exercise under this Warrant, less the number of Warrant Shares with respect to which are acquired upon such exercise. No fractional shares of Common Stock are to be issued upon the exercise of this Warrant, but rather the number of shares of Common Stock to be issued shall be rounded down to the nearest whole number. The Company shall pay any and all taxes which may be payable with respect to the issuance and delivery of Warrant Shares upon exercise of this Warrant.

(b) Exercise Price. For purposes of this Warrant, “**Exercise Price**” means \$7.00, subject to adjustment as provided herein.

(c) Cashless Exercise. Notwithstanding anything contained herein to the contrary, the Holder may, in its sole discretion, on any day on or after the Initial Exercise Date but not after 11:59 p.m., New York time, on the Expiration Date, exercise this Warrant in whole or in part and, in lieu of making the cash payment otherwise contemplated to be made to the Company upon such exercise in payment of the Aggregate Exercise Price, elect instead to receive upon such exercise the “Net Number” of shares of Common Stock determined according to the following formula (a “**Cashless Exercise**”):

$$\text{Net Number} = (\underline{A \times B}) - (\underline{A \times C})$$

B

For purposes of the foregoing formula:

A= the total number of shares with respect to which this Warrant is then being exercised.

B= the lesser of (i) the Closing Sale Price of the shares of Common Stock (as reported by Nasdaq.com) on the date immediately preceding the date of the Exercise Notice or (ii) \$12.00 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock).

C= the Exercise Price then in effect for the applicable Warrant Shares at the time of such exercise.

(d) Disputes. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall promptly issue to the Holder the number of Warrant Shares that are not disputed and resolve such dispute in accordance with Section 12.

(e) Covenant Regarding Authorized Shares; Insufficient Authorized Shares. The Company shall at all times while this Warrant shall be outstanding, reserve and keep available out of its authorized but unissued Common Stock, such number of shares of Common Stock as shall from time to time be sufficient to effect the exercise of all or any portion of the Warrant Shares (disregarding for this purpose any and all limitations of any kind on such exercise). If at any time while the SIA Warrant remains outstanding the Company does not have a sufficient number of authorized and otherwise unreserved shares of Common Stock to satisfy its obligation to reserve for issuance upon exercise of the SIA Warrant at least a number of shares of Common Stock equal to 100% (the "**Required Reserve Amount**") of the number of shares of Common Stock as shall from time to time be necessary to effect the exercise of the SIA Warrant then outstanding (an "**Authorized Share Failure**"), then the Company shall immediately take all action necessary to increase the Company's authorized shares of Common Stock to an amount sufficient to allow the Company to reserve the Required Reserve Amount for the SIA Warrant then outstanding. Without limiting the generality of the foregoing sentence, as soon as practicable after the date of the occurrence of an Authorized Share Failure, but in no event later than one hundred and twenty (120) days after the occurrence of such Authorized Share Failure, the Company shall hold a meeting of its stockholders for the approval of an increase in the number of authorized shares of Common Stock. In connection with such meeting, the Company shall provide each stockholder with a proxy statement and shall solicit its stockholders' approval of such increase in authorized shares of Common Stock and to cause its board of directors to recommend to the stockholders that they approve such proposal.

(f) Limitations on Exercises; Beneficial Ownership. The Company shall not effect the exercise of this Warrant, and the Holder shall not have the right to exercise this Warrant, to the extent that after giving effect to such exercise, such Holder (together with such Holder's affiliates) would beneficially own in excess of 9.99% of the shares of Common Stock outstanding immediately after giving effect to such exercise. For purposes of the foregoing sentence, the aggregate number of shares of Common Stock beneficially owned by such Holder and its affiliates shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which the determination of such sentence is being made, but shall exclude shares of Common Stock which would be issuable upon (i) exercise of the remaining, unexercised portion of this Warrant beneficially owned by such Holder and its affiliates and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company beneficially owned by such Holder and its affiliates (including, without limitation, any convertible notes or convertible preferred stock or warrants) subject to a limitation on conversion or exercise analogous to the limitation contained herein. Except as set forth in the preceding sentence, for purposes of this paragraph, beneficial ownership shall be calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended. For purposes of this Warrant, 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 (1) the Company's most recent Form 10-K, Form 10-Q, Current Report on Form 8-K or other public filing with the Securities and Exchange Commission, as the case may be, (2) a more recent public announcement by the Company or (3) any other more recent notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. For any reason at any time, upon the written or oral request of the Holder, the Company shall within one Business Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including the SPA Warrants, by the Holder and its affiliates since the date as of which such number of outstanding shares of Common Stock was reported. This limitation on beneficial ownership (a) may be increased, decreased or terminated, in the Holder's sole discretion, upon sixty-one (61) days' written notice to the Company by the Holder and (b) shall terminate automatically on the date that is 15 days prior to expiration of the Expiration Date.

2. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES. If the Company at any time on or after the Subscription Date subdivides (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of its outstanding shares of Common Stock into a greater number of shares, the Exercise Price in effect immediately prior to such subdivision will be proportionately reduced and the number of Warrant Shares will be proportionately increased. If the Company at any time on or after the Subscription Date combines (by combination, reverse stock split or otherwise) one or more classes of its outstanding shares of Common Stock into a smaller number of shares, the Exercise Price in effect immediately prior to such combination will be proportionately increased and the number of Warrant Shares will be proportionately decreased. Any adjustment under this Section 2 shall become effective at the close of business on the date such subdivision or combination becomes effective.

3. **RIGHTS UPON DISTRIBUTION OF ASSETS.** If the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a “**Distribution**”), at any time after the issuance of this Warrant, then, in each such case:

(a) any Exercise Price in effect immediately prior to the close of business on the record date fixed for the determination of holders of shares of Common Stock entitled to receive the Distribution shall be reduced, effective as of the close of business on such record date, to a price determined by multiplying such Exercise Price by a fraction of which (i) the numerator shall be the Closing Bid Price of the shares of Common Stock on the Trading Day immediately preceding such record date minus the value of the Distribution (as determined in good faith by the Company’s Board of Directors) applicable to one share of Common Stock, and (ii) the denominator shall be the Closing Bid Price of the shares of Common Stock on the Trading Day immediately preceding such record date; and

(b) the number of Warrant Shares shall be increased to a number of shares equal to the number of shares of Common Stock obtainable immediately prior to the close of business on the record date fixed for the determination of holders of shares of Common Stock entitled to receive the Distribution multiplied by the reciprocal of the fraction set forth in the immediately preceding paragraph (a); provided that, in the event that the Distribution is of shares of common stock of a company whose common stock is traded on a national securities exchange or a national automated quotation system (“**Other Shares of Common Stock**”), then the Holder may elect to receive a warrant to purchase Other Shares of Common Stock in lieu of an increase in the number of Warrant Shares, the terms of which shall be identical to those of this Warrant, except that such warrant shall be exercisable into the number of shares of Other Shares of Common Stock that would have been payable to the Holder pursuant to the Distribution had the Holder exercised this Warrant immediately prior to such record date and with an aggregate exercise price equal to the product of the amount by which the exercise price of this Warrant was decreased with respect to the Distribution pursuant to the terms of the immediately preceding paragraph (a) and the number of Warrant Shares calculated in accordance with the first part of this paragraph (b).

4. **FUNDAMENTAL TRANSACTIONS.** The Company shall not enter into or be party to a Fundamental Transaction unless (A) (i) the Successor Entity assumes in writing all of the obligations of the Company under this Warrant and the Registration Rights Agreement in accordance with the provisions of this Section 4 pursuant to written agreements in form and substance reasonably satisfactory to the Required Holders and approved by the Required Holders prior to the consummation of such Fundamental Transaction, including agreements to deliver to the holder of the SIA Warrant in exchange for such SIA Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant, including, without limitation, an adjusted exercise price equal to the value for the shares of Common Stock reflected by the terms of such Fundamental Transaction, and exercisable for a corresponding number of shares of capital stock equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and reasonably satisfactory to the Required Holders and (ii) the Successor Entity (including its Parent Entity) is a publicly

traded corporation whose common stock is quoted on or listed for trading on an Eligible Market or (B) the Company provides each Holder with not less than ten (10) Business Days prior notice of the anticipated consummation of such Fundamental Transaction (which notice may be provided by means of a press release and/or the filing of a Current Report on Form 8-K) and affords each Holder an opportunity to exercise such Holder's Warrants prior to the consummation of such Fundamental Transaction, following which each unexercised Warrant will be null, void and of no further force or effect. Upon the occurrence of any Fundamental Transaction subject to the provisions of Section 4(A), the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein. Upon consummation of the Fundamental Transaction subject to the provisions of Section 4(A), the Successor Entity shall deliver to the Holder confirmation that there shall be issued upon exercise of this Warrant at any time after the consummation of the Fundamental Transaction, in lieu of the shares of the Common Stock (or other securities, cash, assets or other property) issuable upon the exercise of the Warrant prior to such Fundamental Transaction, such shares of the publicly traded common stock (or its equivalent) of the Successor Entity (including its Parent Entity) which the Holder would have been entitled to receive upon the happening of such Fundamental Transaction had this Warrant been converted immediately prior to such Fundamental Transaction, as adjusted in accordance with the provisions of this Warrant. The provisions of this Section 4 shall apply similarly and equally to successive Fundamental Transactions and shall be applied without regard to any limitations on the exercise of this Warrant.

5. NONCIRCUMVENTION. The Company hereby covenants and agrees that the Company will not, by amendment of its Certificate of Incorporation, Bylaws or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, 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 carry out all the provisions of this Warrant and take all commercially reasonable action as may be required to protect the rights of the Holder hereunder. Without limiting the generality of the foregoing, the Company (i) shall not increase the par value of any shares of Common Stock receivable upon the exercise of this Warrant above the Exercise Price then in effect, (ii) shall take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of Common Stock upon the exercise of this Warrant, and (iii) shall, so long as the SIA Warrant is outstanding, take all action necessary to reserve and keep available out of its authorized and unissued shares of Common Stock, solely for the purpose of effecting the exercise of the SIA Warrant, 100% of the number of shares of Common Stock as shall from time to time be necessary to effect the exercise of the SIA Warrant then outstanding (without regard to any limitations on exercise).

6. WARRANT HOLDER NOT DEEMED A STOCKHOLDER. Except as otherwise specifically provided herein, the Holder, solely in such Person's capacity as a Holder of this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of capital stock of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in such Person's capacity as the Holder of this Warrant, any of

the rights of a stockholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of stock, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which such Person is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a stockholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company. Notwithstanding this Section 6, the Company shall provide the Holder with copies of the same notices and other information given to the stockholders of the Company generally, contemporaneously with the giving thereof to the stockholders; provided, that the Company shall be deemed to have complied with such requirement by filing any such notices or other information on the Securities and Exchange Commission's Electronic Data Gathering Analysis system.

7. REISSUANCE OF WARRANTS.

(a) Transfer of Warrant. If this Warrant is to be transferred, subject to any restrictions on such transfer set forth in Section 14, or under the Securities Issuance Agreement, Registration Rights Agreement or any other agreement to which the Holder is party or by which it is bound, the Holder shall surrender this Warrant to the Company, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Warrant (in accordance with Section 7(d)), registered as the Holder may request, representing the right to purchase the number of Warrant Shares being transferred by the Holder and, if less than the total number of Warrant Shares then underlying this Warrant is being transferred, a new Warrant (in accordance with Section 7(d)) to the Holder representing the right to purchase the number of Warrant Shares not being transferred.

(b) Lost, Stolen or Mutilated Warrant. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft or destruction, of any indemnification undertaking by the Holder to the Company in customary form and, in the case of mutilation, upon surrender and cancellation of this Warrant, the Company shall execute and deliver to the Holder a new Warrant (in accordance with Section 7(d)) representing the right to purchase the Warrant Shares then underlying this Warrant.

(c) Exchangeable for Multiple Warrants. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for a new Warrant or Warrants (in accordance with Section 7(d)) representing in the aggregate the right to purchase the number of Warrant Shares then underlying this Warrant, and each such new Warrant will represent the right to purchase such portion of such Warrant Shares as is designated by the Holder at the time of such surrender; provided, however, that no Warrants for fractional shares of Common Stock shall be given.

(d) Issuance of New Warrants. Whenever the Company is required to issue a new Warrant pursuant to the terms of this Warrant, such new Warrant (i) shall be of like tenor with this Warrant, (ii) shall represent, as indicated on the face of such new Warrant, the right to purchase the Warrant Shares then underlying this Warrant (or in the case of a new Warrant being issued pursuant to Section 7(a) or Section 7(c), the Warrant Shares designated by the Holder which, when added to the number of shares of Common Stock underlying the other new Warrants issued in connection with such issuance, does not exceed the number of Warrant Shares then underlying this Warrant), (iii) shall have an issuance date, as indicated on the face of such new Warrant which is the same as the Issuance Date, and (iv) shall have the same rights and conditions as this Warrant.

8. NOTICES. Whenever notice is required to be given under this Warrant, unless otherwise provided herein, such notice shall be given in accordance with Section 7.5 of the Securities Issuance Agreement. The Company shall provide the Holder with prompt written notice of all actions taken pursuant to this Warrant, including in reasonable detail a description of such action and the reason therefore. Without limiting the generality of the foregoing, the Company will give written notice to the Holder (i) promptly upon any adjustment of the Exercise Price, setting forth in reasonable detail, and certifying, the calculation of such adjustment and (ii) at least ten days prior to the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the shares of Common Stock, (B) with respect to any grants, issuances or sales of any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property to holders of shares of Common Stock or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation, provided in each case that such information shall be made known to the public prior to or in conjunction with such notice being provided to the Holder.

9. AMENDMENT AND WAIVER. Except as otherwise provided herein, the provisions of this Warrant may be amended and 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 has obtained the written consent of the Required Holders; provided that no such action may (i) increase the exercise price of any SIA Warrant, (ii) decrease the number of shares or class of stock obtainable upon exercise of any SIA Warrant, (iii) shorten the Expiration Date, or (iv) amend Section 2 without the written consent of the Holder. No such amendment shall be effective to the extent that it applies to less than all of the holders of the SIA Warrants then outstanding.

10. GOVERNING LAW. This Warrant shall be governed by and construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Warrant shall be governed by, the internal laws of the Commonwealth of Massachusetts, without giving effect to any choice of law or conflict of law provision or rule (whether of the Commonwealth of Massachusetts or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the Commonwealth of Massachusetts.

11. CONSTRUCTION; HEADINGS. This Warrant shall be deemed to be jointly drafted by the Company and all the Purchasers and shall not be construed against any person as the drafter hereof. The headings of this Warrant are for convenience of reference and shall not form part of, or affect the interpretation of, this Warrant.

12. DISPUTE RESOLUTION. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall submit the disputed determinations or arithmetic calculations via electronic mail within two (2) Business Days of receipt of the Exercise Notice giving rise to such dispute, as the case may be, to the Holder. If the Holder and the Company are unable to agree upon such determination or calculation of the Exercise Price or the Warrant Shares within three (3) Business Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within two (2) Business Days submit via electronic mail (a) the disputed determination of the Exercise Price to an independent, reputable investment bank selected by the Company and approved by the Holder or (b) the disputed arithmetic calculation of the Warrant Shares to the Company's independent, outside accountant. The Company shall cause at its expense the investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than ten (10) Business Days from the time it receives the disputed determinations or calculations. Such investment bank's or accountant's determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error.

13. REMEDIES, OTHER OBLIGATIONS, BREACHES AND INJUNCTIVE RELIEF. The remedies provided in this Warrant shall be cumulative and in addition to all other remedies available under this Warrant and the other Transaction Documents (as defined in the Securities Issuance Agreement), at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit the right of the Holder to pursue actual damages for any failure by the Company to comply with the terms of this Warrant. The Company acknowledges that a breach by it of its obligations hereunder may cause irreparable harm to the Holder and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, the holder of this Warrant shall be entitled, in addition to all other available remedies, to seek an injunction restraining any breach, without the necessity of showing economic loss and without any bond or other security being required.

14. TRANSFER. This Warrant may be offered for sale, sold, transferred or assigned without the consent of the Company, except as may otherwise be required by Sections 3.4 and 3.7 of the Securities Issuance Agreement or as otherwise set forth herein or therein.

15. CERTAIN DEFINITIONS. For purposes of this Warrant, the following terms shall have the following meanings:

(a) "**Bloomberg**" means Bloomberg Financial Markets.

(b) "**Business Day**" means any day other than Saturday, Sunday, Federal holiday or other day on which the SEC's Washington, DC office or commercial banks in The City of New York or Boston, Massachusetts are authorized or required by law to remain closed to the public.

(c) **“Closing Bid Price”** and **“Closing Sale Price”** means, for any security as of any date, the last closing bid price and last closing trade price, respectively, for such security on the Nasdaq Stock Market, LLC, as reported by Bloomberg, or, if the Nasdaq Stock Market, LLC begins to operate on an extended hours basis and does not designate the closing bid price or the closing trade price, as the case may be, then the last bid price or last trade price, respectively, of such security prior to 4:00 p.m., New York time, as reported by Bloomberg, or, if the Nasdaq Stock Market, LLC is not the principal securities exchange or trading market for such security, the last closing bid price or last trade price, respectively, of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg, or if the foregoing do not apply, the last closing bid price or last trade price, respectively, of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no closing bid price or last trade price, respectively, is reported for such security by Bloomberg, the average of the bid prices, or the ask prices, respectively, of any market makers for such security as reported in the “pink sheets” by Pink Sheets LLC (formerly the National Quotation Bureau, Inc.). If the Closing Bid Price or the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Bid Price or the Closing Sale Price, as the case may be, of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 12. All such determinations to be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during the applicable calculation period.

(d) **“Common Stock”** means (i) the Company’s shares of Common Stock, par value \$.001 per share, and (ii) any share capital into which such Common Stock shall have been changed or any share capital resulting from a reclassification of such Common Stock.

(e) **“Convertible Securities”** means any stock or securities (other than Options) directly or indirectly convertible into or exercisable or exchangeable for shares of Common Stock.

(f) **“Dollar”**, **“US Dollar”** and **“\$”** each mean the lawful money of the United States.

(g) **“Eligible Market”** means The New York Stock Exchange, Inc., The Nasdaq Capital Market, The Nasdaq Global Market or The Nasdaq Global Select Market.

(h) **“Expiration Date”** means the date that is five years from the Closing Date or, if such date falls on a day other than a Business Day or on which trading does not take place on the Nasdaq Stock Market, LLC (a **“Holiday”**), the next date that is not a Holiday.

(i) **“Fundamental Transaction”** means that the Company shall, directly or indirectly, in one or more related transactions, (i) consolidate or merge with or into (whether or not the Company is the surviving corporation) another Person, or (ii) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets of the Company to another Person, or (iii) allow another Person to make a purchase, tender or exchange offer that is accepted by the holders of more than the 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the Person or Persons making or party to, or associated or affiliated with the Persons making or party to, such purchase, tender or exchange offer), or (iv) consummate a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than the 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 purchase agreement or other business combination), or (v) reorganize, recapitalize or reclassify its Common Stock, or (vi) any “person” or “group” (as these terms are used for purposes of Sections 13(d) and 14(d) of the Exchange Act) is or shall become the “beneficial owner” (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of 50% of the aggregate ordinary voting power represented by issued and outstanding Common Stock.

(j) “**Options**” means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.

(k) “**Parent Entity**” of a Person means an entity that, directly or indirectly, controls the applicable Person and whose common stock or equivalent equity security is quoted or listed on an Eligible Market, or, if there is more than one such Person or Parent Entity, the Person or Parent Entity with the largest public market capitalization as of the date of consummation of the Fundamental Transaction.

(l) “**Person**” means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

(m) “**Registration Rights Agreement**” means that certain registration rights agreement by and between the Company and the Purchaser dated September 12, 2019.

(n) “**Required Holders**” means the holders of the SIA Warrants representing at least a majority of shares of Common Stock underlying the SIA Warrants then outstanding.

(o) “**Successor Entity**” means the Person (or, if so elected by the Required Holders, the Parent Entity) formed by, resulting from or surviving any Fundamental Transaction or the Person (or, if so elected by the Required Holders, the Parent Entity) with which such Fundamental Transaction shall have been entered into.

(p) “**Trading Day**” means any day on which the Common Stock is traded on the Nasdaq Stock Market, LLC, or, if the Nasdaq Stock Market, LLC is not the principal trading market for the Common Stock, then on the principal securities exchange or securities market on which the Common Stock is then traded; provided that “Trading Day” shall not include any day on which the Common Stock is scheduled to trade on such exchange or market for less than 4.5 hours or any day that the Common Stock is suspended from trading during the final hour of trading on such exchange or market (or if such exchange or market does not designate in advance the closing time of trading on such exchange or market, then during the hour ending at 4:00 p.m., New York time).

[Signature Page Follows]

IN WITNESS WHEREOF, the Company has caused this Warrant to Purchase Common Stock to be duly executed as of the Issuance Date set out above.

THE COMPANY:

ZIOPHARM ONCOLOGY, INC.

By: _____
Laurence J.N. Cooper, M.D., Ph.D.
Chief Executive Officer

EXERCISE NOTICE

TO BE EXECUTED BY THE REGISTERED HOLDER TO EXERCISE THIS
WARRANT TO PURCHASE COMMON STOCK

The undersigned holder hereby exercises the right to purchase _____ of the shares of Common Stock (“**Warrant Shares**”) of ZIOPHARM Oncology, Inc., a corporation organized under the laws of Delaware (the “**Company**”), evidenced by the attached Warrant to Purchase Common Stock (the “**Warrant**”). Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

1. Form of Exercise Price. The Holder intends that payment of the Exercise Price shall be made as:

a “Cash Exercise” with respect to _____ Warrant Shares; and/or

a “Cashless Exercise” with respect to _____ Warrant Shares.

2. Payment of Exercise Price. In the event that the holder has elected a Cash Exercise with respect to some or all of the Warrant Shares to be issued pursuant hereto, the holder shall pay the Aggregate Exercise Price in the sum of \$ _____ to the Company in accordance with the terms of the Warrant.

3. Delivery of Warrant Shares. The Company shall deliver to the holder _____ Warrant Shares in accordance with the terms of the Warrant.

4. Representations and Warranties. The undersigned holder represents and warrants that all of the representations and warranties set forth in Article III of the Securities Issuance Agreement are true and correct with respect to the holder as of the date hereof.

Date: _____, _____

Name of Registered Holder

By: _____

Name:

Title:

SECURITIES ISSUANCE AGREEMENT

THIS SECURITIES ISSUANCE AGREEMENT (the “**Agreement**”), dated as of September 12, 2019, by and between ZIOPHARM Oncology, Inc., a Delaware corporation (the “**Company**”), and the purchaser identified on Exhibit A hereto (each, including its successors and assigns, the “**Purchaser**”). Capitalized terms used herein but not otherwise defined shall have the meanings given to them in Section 1.6.

RECITALS

A. On or about November 13, 2018, the Company issued the Purchaser warrants to purchase shares of Company Common Stock in the amounts set forth opposite the Purchaser’s name on Exhibit A hereto (each a “**2018 Warrant**” and collectively, the “**2018 Warrants**”) pursuant to that certain Securities Purchase Agreement dated November 11, 2018 by and among the Company and the purchasers referred to therein.

B. The Purchaser wishes to exercise its 2018 Warrants for all of the shares of Company Common Stock issuable thereunder (the “**2018 Warrant Shares**”) and receive a 2019 Warrant (as defined below) upon the terms and conditions stated in this Agreement.

C. On the terms and subject to the conditions set forth in this Agreement and pursuant to Section 4(a)(2) of the Securities Act of 1933, as amended (the “**Securities Act**”), and Rule 506 promulgated thereunder, the Company desires to issue the Purchaser the 2019 Warrants to the Purchaser as more fully described in this Agreement.

AGREEMENT

NOW, THEREFORE, IN CONSIDERATION of the mutual covenants contained in this Agreement, and for other good and valuable consideration the receipt and adequacy of which are hereby acknowledged, the Company and the Purchaser agree as follows:

ARTICLE I

EXERCISE OF 2018 WARRANTS AND ISSUANCE OF 2019 WARRANTS

1.1 Exercise of 2018 Warrants. At the Closing and subject to Section 5.1, the Purchaser shall exercise their 2018 Warrants for all of the shares of Common Stock issuable thereunder (the “**2018 Warrant Exercise**”). The 2018 Warrant Exercise shall be effected pursuant to Section 1(a) of the 2018 Warrants and the Purchaser shall pay the Company the Exercise Price (as defined in the 2018 Warrants) for each share exercised by the Purchaser. The Purchaser’s aggregate Exercise Price for the 2018 Warrant Exercise is set forth opposite the Purchaser’s name on Exhibit A hereto (the Purchaser’s “**2018 Warrant Exercise Amount**”). The Purchaser hereby notifies the Company that the beneficial ownership limitations set forth in Section 1(f) of the Purchaser’s 2018 Warrant is hereby terminated and the Company hereby waives the prior notice related to such notice contemplated by Section 1(f) of the 2018 Warrants. The Company’s obligations under Section 1(f) of the 2018 Warrants shall be deemed satisfied upon issuance to the Purchaser of the 2018 Warrant Shares in accordance with Agreement.

1.2 Issuance of 2019 Warrants. At the Closing and subject to Section 5.2, the Company shall issue the Purchaser a 2019 Warrant representing the right to purchase a number of shares of Company Common Stock equal to the number of shares issued to the Purchaser in connection with the 2018 Warrant Exercise. The aggregate number of shares exercisable pursuant to the Purchaser's 2019 Warrant, assuming that the Purchaser exercises its 2018 Warrants in full as required by this Agreement, is set forth opposite the Purchaser's name on Exhibit A.

1.3 Closing. Subject to the terms and conditions set forth in this Agreement, at the Closing, (i) the Purchaser shall exercise its 2018 Warrants for all of the shares of Company Common Stock issuable thereunder and shall pay the Purchaser's 2018 Warrant Exercise Amount to the Company, and (ii) the Company shall issue to the Purchaser a 2019 Warrant exercisable for the number of shares of Company Common Stock equal to the number of shares issued to the Purchaser in connection with the 2018 Warrant Exercise. The closing of the 2018 Warrant Exercise and the issuance of the 2019 Warrants (the "**Closing**") will occur, subject to the conditions set forth in Article V, two business days following the satisfaction or waiver of the conditions set forth in Sections 5.1 and 5.2, or at such other time and place or on such date as the Purchaser and the Company may agree upon (the "**Closing Date**"). The Closing shall take place at the offices of Cooley LLP, 500 Boylston Street, Boston, Massachusetts, 02116 or at such other place as the Company and the Purchaser may agree upon.

1.4 Payment. On the Closing Date, (a) the Purchaser shall pay to the Company, in cash, the aggregate Exercise Price (as such term is defined in the 2018 Warrants) for all of 2018 Warrants currently held by the Purchaser, which amount is set for opposite the Purchaser's name on Exhibit A attached hereto, (b) notwithstanding anything set forth in Section 1(a) of the 2018 Warrants, the Company shall irrevocably instruct the Transfer Agent to deliver to the Purchaser the number of shares of Company Common Stock issuable to the Purchaser upon exercise of the Purchaser's 2018 Warrants, and (c) the Company shall issue to the Purchaser a new warrant substantially in the form attached hereto as Exhibit B (each a "**2019 Warrant**" and collectively, the "**2019 Warrants**") pursuant to which the Purchaser shall have the right to acquire the number of shares of Company Common Stock equal to the number of shares issued to the Purchaser in connection with the 2018 Warrant Exercise, on the terms set forth in each 2019 Warrant, and in the case of clauses (b) and (c), duly executed on behalf of the Company and registered in the name of the Purchaser as set forth on the Stock Registration Questionnaire included as Exhibit C. The 2019 Warrants issued at the Closing shall have an initial exercise price equal to the \$7.00 (the "**2019 Warrant Exercise Price**").

1.5 Closing Deliverables.

(a) Company. Except for the delayed delivery contemplated by Section 1.5(a)(ii), on or prior to the Closing Date, the Company shall deliver or cause to be delivered to the Purchaser the following:

(i) a copy of the irrevocable instructions to the Transfer Agent instructing the Transfer Agent to deliver, on an expedited basis the number of shares of Company Common Stock set forth opposite the Purchaser's name on Exhibit A hereto, registered in the name of the Purchaser as set forth on the Stock Registration Questionnaire included as Exhibit C;

(ii) a 2019 Warrant, registered in the name of the Purchaser as set forth on the Stock Registration Questionnaire included as Exhibit C, to purchase up to the number of shares of Company Common Stock set forth opposite the Purchaser's name on Exhibit A hereto (such Warrant to be delivered as promptly as practicable after the Closing Date but in no event more than five Trading Days after the Closing Date); and

(iii) the Registration Rights Agreement, duly executed by the Company.

(b) Purchaser. On or prior to the Closing Date, the Purchaser shall deliver or cause to be delivered to the Company the following:

(i) a fully completed and duly executed Stock Registration Questionnaire in the form attached hereto as Exhibit C;

(ii) the Registration Rights Agreement, duly executed by the Purchaser;

(iii) a fully completed and duly executed Accredited Investor Qualification Questionnaire in the form attached hereto as Exhibit E;

(iv) a fully completed and duly executed Bad Actor Questionnaire in the form attached hereto as Exhibit F;

(v) by wire transfer to the account specified by the Company, the aggregate Exercise Price (as defined in the 2018 Warrants) for the 2018 Warrants exercised by the Purchaser as set forth opposite the Purchaser's name on Exhibit A hereto; and

(vi) a fully completed and duly executed Exercise Notice attached to the Purchaser's 2018 Warrant indicating that the Purchaser elects to exercise, for cash, the number of shares of Company Common Stock set forth opposite the Purchaser's name on Exhibit A hereto.

1.6 Defined Terms Used in This Agreement. In addition to the terms defined elsewhere in this Agreement, the following terms have the meanings indicated:

“**Affiliate**” means, with respect to any Person, any other Person that directly or indirectly controls or is controlled by or under common control with such Person. For the purposes of this definition, “**control**,” when used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise; and the terms of “**affiliated**,” “**controlling**” and “**controlled**” have meanings correlative to the foregoing.

“**Company Common Stock**” means the Company’s common stock, par value \$0.001 per share.

“**Nasdaq**” means the Nasdaq Stock Market, LLC.

“**Person**” means an individual or a corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or political subdivision thereof) or other entity of any kind.

“**Registration Rights Agreement**” means that certain Registration Rights Agreement, dated as of the Closing Date, by and between the Company and the Purchaser, in the form of Exhibit D attached to this Agreement.

“**Securities**” means the 2019 Warrants and the shares of Company Common Stock exercisable pursuant to the 2018 Warrants and 2019 Warrants.

“**Trading Day**” means a Nasdaq trading day.

“**Transaction Documents**” means this Agreement, the Registration Rights Agreement and the schedules and exhibits attached hereto and thereto.

“**Transfer Agent**” means American Stock Transfer & Trust Company, the current transfer agent of the Company, with a mailing address of 6201 15th Avenue, Brooklyn, New York 11219, Attn: Shareholder Services, and any successor transfer agent of the Company.

ARTICLE II REPRESENTATIONS AND WARRANTIES OF THE COMPANY

Subject to and except as set forth in the SEC Documents (as defined below), the Company hereby represents and warrants to the Purchaser as of the date hereof as follows:

2.1 **Organization, Good Standing and Power.** The Company is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware and has the requisite corporate power to own, lease and operate its properties and assets and to conduct its business as it is now being conducted and as described in the reports filed by the Company with the United States Securities and Exchange Commission (the “**Commission**”) pursuant to the reporting requirements of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), since the end of the Company’s 2018 fiscal year through the date hereof, including, without limitation, the Company’s most recent quarterly report on Form 10-Q. The Company does not have any subsidiaries. The Company is qualified to do business as a foreign corporation and is in good standing in every jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except for any jurisdiction(s) (alone or in the aggregate) in which the failure to be so qualified will not have a Material Adverse Effect. For the purposes of this Agreement, “**Material Adverse Effect**” means any effect on the business, operations, properties or financial condition of the Company that is material and adverse to the Company, taken as a whole, and any condition, circumstance or situation that would prohibit the Company from entering into and performing any of its obligations hereunder.

2.2 Authorization; Enforcement. The Company has the requisite corporate power and authority to enter into and perform the Transaction Documents and to issue the Securities to be issued by the Company in accordance with the terms hereof. The execution, delivery and performance of this Agreement by the Company and the consummation by it of the transactions contemplated hereby have been duly and validly authorized by all necessary corporate action, and no further consent or authorization of the Company, its board of directors or stockholders is required. When executed and delivered by the Company, this Agreement shall constitute a valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, reorganization, moratorium, liquidation, conservatorship, receivership or similar laws relating to, or affecting generally the enforcement of, creditor's rights and remedies or by other equitable principles of general application. The Company's board of directors, at a meeting duly called and held, adopted resolutions approving the transactions contemplated hereby, including the issuance of the Securities to be issued by the Company pursuant to this Agreement.

2.3 Issuance of Securities. The issuance of the Securities has been duly authorized by all necessary corporate action, and the shares of Company Common Stock, when issued upon the due exercise of the 2018 Warrants and 2019 Warrants, will be validly issued, fully paid and nonassessable. In addition, the Securities will be free and clear of all liens, claims, charges, security interests or agreements, pledges, assignments, covenants, restrictions or other encumbrances created by, or imposed by, the Company and rights of refusal of any kind imposed by the Company (other than as provided in the Transaction Documents or restrictions on transfer under applicable securities laws). The Company will reserve, at all times that the 2019 Warrants remain outstanding, such number of shares of Company Common Stock sufficient to enable the full exercise of the then outstanding 2019 Warrants.

2.4 No Conflicts; Governmental Approvals. The execution, delivery and performance of the Transaction Documents by the Company and the consummation by the Company of the transactions contemplated hereby do not and will not (i) violate any provision of the Company's certificate of incorporation or bylaws as currently in effect, (ii) conflict with, or constitute a default (or an event which, with notice or lapse of time or both, would become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, mortgage, deed of trust, indenture, note, bond, license, lease agreement, instrument or obligation to which the Company is a party or by which the Company's properties or assets are bound, or (iii) result in a violation of any federal, state, local or foreign statute, rule, regulation, order, judgment or decree (including federal and state securities laws and regulations) applicable to the Company or by which any property or asset of the Company is bound or affected. The Company is not required under federal, state, foreign or local law, rule or regulation to obtain any consent, authorization or order of, or make any filing or registration with, any court or governmental agency in order for it to execute, deliver or perform any of its obligations under this Agreement or issue and sell the Securities to be issued by the Company in accordance with the terms hereof, other than filings that have been made, or will be made, or consents that have been obtained, or will be obtained, pursuant to the rules and regulations of Nasdaq, including a Nasdaq Listing of Additional Shares notification form, applicable state securities laws and post-sale filings pursuant to applicable state and federal securities laws which the Company undertakes to file or obtain within the applicable time periods and the filings required to be made pursuant to this Agreement.

2.5 Capitalization. The issued and outstanding shares of capital stock of the Company have been validly issued, are fully paid and nonassessable and are not subject to any preemptive rights, rights of first refusal or similar rights. The Company has an authorized, issued and outstanding capitalization as set forth in the Company's most recent annual report on Form 10-K or quarterly report on Form 10-Q (other than the forfeiture and cancellation of all outstanding shares of the Company's Series 1 Preferred Stock, the grant of additional awards under the Company's equity incentive plans, the grant of additional options to employees that are not related to the Company's equity incentive plans, or changes in the number of outstanding shares of Company Common Stock due to the issuance of shares upon the exercise or conversion of securities exercisable for, or convertible or exchangeable into, shares of Company Common Stock outstanding). Except as disclosed in the Company's most recent annual report on Form 10-K or quarterly report on Form 10-Q, the Company does not have outstanding any options to purchase, or any rights or warrants to subscribe for, or any securities or obligations convertible into, or exchangeable for, or any contracts or commitments to issue or sell, any shares of capital stock or other securities (other than the grant of additional awards under the Company's equity incentive plans or grants of additional options to employees that are not related to the Company's equity incentive plans).

2.6 SEC Documents, Financial Statements. The Company represents and warrants that as of the date hereof, the Company Common Stock is registered pursuant to Section 12(b) of the Exchange Act. Since January 1, 2018, the Company has timely filed all reports, schedules, forms, statements and other documents required to be filed by it with the Commission pursuant to the reporting requirements of the Exchange Act (the "SEC Documents"). At the times of their respective filing, all such reports, schedules, forms, statements and other documents of the Company complied in all material respects with the requirements of the Exchange Act and the rules and regulations of the Commission promulgated thereunder. At the times of their respective filings, such reports, schedules, forms, statements and other documents of the Company did not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. As of the date hereof, the Company meets the "Registrant Requirements" for eligibility to use Form S-3 set forth in General Instruction I.A to Form S-3. As of their respective dates, the financial statements of the Company included in the SEC Documents complied in all material respects with applicable accounting requirements and the published rules and regulations of the Commission or other applicable rules and regulations with respect thereto. Such financial statements have been prepared in accordance with generally accepted accounting principles applied on a consistent basis during the periods involved (except (i) as may be otherwise indicated in such financial statements or the notes thereto or (ii) in the case of unaudited interim statements, to the extent they may not include footnotes or may be condensed or summary statements), and fairly present in all material respects the consolidated financial position of the Company as of the dates thereof and the results of operations and cash flows for the periods then ended (subject, in the case of unaudited statements, to normal year-end audit adjustments).

2.7 Accountants. The Company represents and warrants that RSM US LLP, whose report on the financial statements of the Company is filed with the Commission in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, was, at the time such report was issued, an independent registered public accounting firm as required by the Securities Act. Except as described in the SEC Documents and as preapproved in accordance with the requirements set forth in Section 10A of the Exchange Act, to the Company's knowledge, RSM US LLP has not engaged in any non-audit services prohibited by subsection (g) of Section 10A of the Exchange Act on behalf of the Company.

2.8 Internal Controls. The Company has established and maintains a system of internal accounting controls sufficient to provide reasonable assurances that: (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles in the United States and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

2.9 Disclosure Controls. The Company has established and maintains disclosure controls and procedures (as such term is defined in Rules 13a-15 and 15d-15 under the Exchange Act). Since the date of the most recent evaluation of such disclosure controls and procedures, there have been no significant changes in internal controls or in other factors with respect to the Company that could significantly affect the Company's internal controls, including any corrective actions with regard to significant deficiencies and material weaknesses. The Company is in compliance in all material respects with all provisions currently in effect and applicable to the Company of the Sarbanes-Oxley Act of 2002, and all rules and regulations promulgated thereunder or implementing the provisions thereof.

2.10 No Material Adverse Change. Except as disclosed in the SEC Documents, since December 31, 2018, the Company has not (i) experienced or suffered any Material Adverse Effect, (ii) incurred any material liabilities, obligations, claims or losses (whether liquidated or unliquidated, secured or unsecured, absolute, accrued, contingent or otherwise) other than those incurred in the ordinary course of the Company's business or (iii) declared, made or paid any dividend or distribution of any kind on its capital stock.

2.11 Litigation. Except as disclosed in the SEC Documents, no action, suit, proceeding or investigation is currently pending or, to the knowledge of the Company, has been threatened in writing against the Company that: (i) concerns or questions the validity of this Agreement; (ii) concerns or questions the right or authority of the Company to enter into the Transaction Documents and to perform its obligations thereunder; or (iii) is reasonably likely to have a Material Adverse Effect. The Company is neither a party to nor subject to the provisions of any material order, writ, injunction, judgment or decree of any court or government agency or instrumentality. There is no action, suit, proceeding or investigation by the Company currently pending or that the Company intends to initiate that would have a Material Adverse Effect.

2.12 Compliance. The Company (i) is not in violation of any provision of the Company's certificate of incorporation or bylaws as currently in effect, (ii) is not in default under or in violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company under), nor has the Company received notice of a claim that it is in default under or that it is in violation of, any indenture, loan or credit agreement or any other agreement or instrument to which it is a party or by which it or any

of its properties is bound (whether or not such default or violation has been waived), (iii) is not in violation of any order of any court, arbitrator or governmental body, or (iii) is not or has not been in violation of any statute, rule or regulation of any governmental authority, including without limitation all foreign, federal, state and local laws applicable to its business, except in each case (other than with respect to clause (i) above) for such defaults or violations as would not have a Material Adverse Effect.

2.13 Listing and Maintenance Requirements. Except as set forth in the SEC Documents, the Company is, and has no reason to believe that it will not, upon the issuance of the Securities hereunder, continue to be, in compliance with the requirements of the Nasdaq for continued listing of the Company Common Stock thereon and the Company has not received any notification that, and has no knowledge that the Nasdaq is contemplating terminating such listing. The issuance and sale of the Securities hereunder does not contravene the rules and regulations of the Nasdaq in any material respect.

2.14 Investment Company Act. The Company is not and, after giving effect to the offering and sale of the Securities, will not be an “investment company” or an entity “controlled” by an “investment company,” as such terms are defined in the Investment Company Act of 1940.

2.15 Private Placement. Neither the Company nor its Affiliates, nor, to the Company’s Knowledge, any Person acting on its or their behalf, (i) has engaged in any form of general solicitation or general advertising (within the meaning of Regulation D under the Securities Act) in connection with the offer or sale of the Securities hereunder, (ii) has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under any circumstances that would require registration of the sale and issuance by the Company of the Securities under the Securities Act or (iii) has issued any shares of Company Common Stock or shares of any series of preferred stock or other securities or instruments convertible into, exchangeable for or otherwise entitling the holder thereof to acquire shares of Company Common Stock which would be integrated with the sale of the Securities to the Purchaser for purposes of the Securities Act or of any applicable stockholder approval provisions, including, without limitation, under the rules and regulations of any exchange or automated quotation system on which any of the securities of the Company are listed or designated, nor will the Company or any of its Affiliates take any action or steps that would require registration of any of the Securities under the Securities Act or cause the offering of the Securities to be integrated with other offerings. Assuming the accuracy of the representations and warranties of the Purchaser, the offer and sale of the Securities to be issued by the Company to the Purchaser pursuant to this Agreement will be exempt from the registration requirements of the Securities Act.

2.16 No Manipulation of Stock. The Company has not taken and will not, in violation of applicable law, take, any action outside the ordinary course of business designed to or that might reasonably be expected to cause or result in unlawful manipulation of the price of the Company Common Stock.

2.17 Brokers and Finders. Neither the Company nor any of the officers, directors or employees of the Company has employed any broker or finder in connection with the transaction contemplated by this Agreement.

2.18 OFAC. Neither the Company nor, to the Company's knowledge, any director, officer, agent, employee, Affiliate or person acting on behalf of the Company, is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department.

2.19 Reliance. The Company understands that the foregoing representations and warranties shall be deemed material and to have been relied upon by the Purchaser.

ARTICLE III

REPRESENTATIONS, WARRANTIES AND COVENANTS OF PURCHASER

The Purchaser hereby represents, warrants and covenants to the Company as follows:

3.1 Authorization and Power. The Purchaser has the requisite power and authority to enter into and perform the Transaction Documents and to purchase the Securities being issued to it hereunder. The execution, delivery and performance of this Agreement by the Purchaser and the consummation by it of the transactions contemplated hereby have been duly authorized by all necessary corporate action, and no further consent or authorization of the Purchaser or its board of directors, stockholders or other governing body is required. When executed and delivered by the Purchaser, this Agreement shall constitute a valid and binding obligation of the Purchaser, enforceable against the Purchaser in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, liquidation, conservatorship, receivership or similar laws relating to, or affecting generally the enforcement of, creditor's rights and remedies or by other equitable principles of general application.

3.2 No Conflict. The execution, delivery and performance of the Transaction Documents by the Purchaser and the consummation by the Purchaser of the transactions contemplated hereby do not and will not (i) violate any provision of the Purchaser's charter or organizational documents, (ii) conflict with, or constitute a default (or an event which with notice or lapse of time or both would become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, mortgage, deed of trust, indenture, note, bond, license, lease agreement, instrument or obligation to which the Purchaser is a party or by which the Purchaser's properties or assets are bound, or (iii) result in a violation of any federal, state, local or foreign statute, rule, regulation, order, judgment or decree (including federal and state securities laws and regulations) applicable to the Purchaser or by which any property or asset of the Purchaser are bound or affected.

3.3 Purchaser Sophistication; Accredited Investor. As of the date hereof, and on each date on which it exercises the 2018 Warrants and 2019 Warrants, the Purchaser (a) is knowledgeable, sophisticated and experienced in making, and is qualified to make decisions with respect to, investments in shares presenting an investment decision like that involved in the purchase of the Securities, including investments in securities issued by the Company and investments in comparable companies, and has requested, received, reviewed and considered all information it deemed relevant in making an informed decision to purchase the Securities; (b) in connection with its decision to purchase the Securities, relied only upon the SEC Documents, other publicly available information, and the representations and warranties of the Company contained herein; (c) is an "accredited investor" pursuant to Rule 501 of Regulation D under the

Securities Act; (d) is acquiring the Securities for its own account for investment only and with no present intention of distributing any of the Securities or any arrangement or understanding with any other persons regarding the distribution of the Securities; (e) has not been organized, reorganized or recapitalized specifically for the purpose of investing in the Securities; (f) will not, directly or indirectly, offer, sell, pledge, transfer or otherwise dispose of (or solicit any offers to buy, purchase or otherwise acquire to take a pledge of) any of the Securities except in compliance with the Securities Act and applicable state securities laws; (g) understands that the Securities are being offered and sold to it in reliance upon specific exemptions from the registration requirements of the Securities Act and state securities laws, and that the Company is relying upon the truth and accuracy of, and the Purchaser's compliance with, the representations, warranties, agreements, acknowledgments and understandings of the Purchaser set forth herein in order to determine the availability of such exemptions and the eligibility of the Purchaser to acquire the Securities; (h) understands that its investment in the Securities involves a significant degree of risk, including a risk of total loss of the Purchaser's investment (provided that such acknowledgment in no way diminishes the representations, warranties and covenants made by the Company hereunder); and (i) understands that no United States federal or state agency or any other government or governmental agency has passed upon or made any recommendation or endorsement of the Securities.

3.4 Restricted Shares. The Purchaser acknowledges that the Securities are restricted securities and must be held indefinitely unless subsequently registered under the Securities Act or (if the Company is not selling the Securities pursuant to Rule 144 promulgated under the Securities Act) the Company receives an opinion of counsel reasonably satisfactory to the Company that such registration is not required. The Purchaser is aware of the provisions of Rule 144 promulgated under the Securities Act which provide a safe harbor for the limited resale of stock purchased in a private placement subject to the satisfaction of certain conditions (if applicable), including, among other things, the existence of a public market for the stock, the availability of certain current public information about the Company, the resale occurring after certain holding periods have been met, the sale being conducted through a "broker's transaction" or a transaction directly with a "market maker" and the number of shares of the stock being sold during any three-month period not exceeding specified limitations. The Purchaser further acknowledges and understands that the Company may not be satisfying the current public information requirement of Rule 144 at the time the Purchaser wishes to sell the Securities and, if so, the Purchaser may be precluded from selling the Securities under Rule 144 even if the required holding period has been satisfied.

3.5 Residency. The Purchaser is a resident of or an entity organized under the jurisdiction specified below its address on Exhibit A hereto

3.6 Ownership of Capital Stock. Except as previously disclosed to the Company in writing or by email and excluding the Securities, the Purchaser and its Affiliates beneficially own no shares of capital stock of the Company as of the date hereof.

3.7 Stock Legends. The Purchaser acknowledges that certificates evidencing the Securities shall bear a restrictive legend in substantially the following form (and including related stock transfer instructions and record notations):

THESE SECURITIES HAVE 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 OR BLUE SKY LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY.

3.8 No Legal, Tax or Investment Advice. The Purchaser understands that nothing in this Agreement or any other materials presented by or on behalf of the Company to the Purchaser in connection with the purchase of the Securities constitutes legal, tax or investment advice. The Purchaser has consulted such legal, tax and investment advisors as it, in its sole discretion, has deemed necessary or appropriate in connection with its purchase of the Securities.

3.9 No General Solicitation; Pre-Existing Relationship. The Purchaser is not purchasing the Securities as a result of any advertisement, article, notice or other communication regarding the Securities published in any newspaper, magazine or similar media or broadcast over television or radio or presented at any seminar or any other general solicitation or general advertisement. The Purchaser also represents that the Purchaser was contacted regarding the issuance of the Securities by the Company (or an authorized agent or representative of the Company) with which the Purchaser had a substantial pre-existing relationship.

3.10 Purchase Entirely for Own Account. The Securities to be received by the Purchaser hereunder will be acquired for the Purchaser'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 Securities Act, and the Purchaser has no present intention of selling, granting any participation in, or otherwise distributing the same in violation of the Securities Act without prejudice, however, to the Purchaser'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 the Purchaser to hold the Securities for any period of time.

3.11 Experience of the Purchaser. The Purchaser, either alone or together with its representatives, has such knowledge, sophistication and experience in business and financial matters so as to be capable of evaluating the merits and risks of the prospective investment in the Securities, and has so evaluated the merits and risks of such investment. The Purchaser is able to bear the economic risk of an investment in the Securities and, at the present time, is able to afford a complete loss of such investment.

3.12 Disclosure of Information. The Purchaser has had an opportunity to receive 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. The Purchaser acknowledges receipt of copies of the SEC Reports (or access thereto via EDGAR). Neither such inquiries nor any other due diligence investigation conducted by the Purchaser shall modify, limit or otherwise affect the Purchaser's right to rely on the Company's representations and warranties contained in this Agreement.

3.13 Interested Stockholders. The Purchaser that is an "Interested Stockholder" (as such term is defined in Section 203 of the General Corporation Law of the State of Delaware) represents and warrants that either (a) it has been an Interested Stockholder for at least three years prior to the date hereof or (b) the transaction that resulted in the Purchaser becoming an Interested Stockholder was approved by the Board of Directors or a duly authorized committee thereof.

3.14 No Rule 506 Disqualifying Activities. The Purchaser 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 Securities Act.

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

3.16 Regulation M. The Purchaser is aware that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of Company Common Stock and other activities with respect to Company Common Stock.

ARTICLE IV COVENANTS OF THE PARTIES

4.1 Further Transfers. The Purchaser covenants that the Securities will only be sold, offered for sale, pledged, loaned, or otherwise disposed of pursuant to an effective registration statement under, and in compliance with the requirements of, the Securities Act or pursuant to an available exemption from the registration requirements of the Securities Act, and in compliance with any applicable state securities laws. In connection with any transfer of Securities other than pursuant to an effective registration statement or Rule 144, the Company may require the Purchaser to provide to the Company an opinion of counsel selected by the Purchaser, the form and substance of which opinion shall be reasonably satisfactory to the Company, to the effect that such transfer does not require registration under the Securities Act.

4.2 No Integration. 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 Securities Act) that will be integrated with the offer or sale of the Securities pursuant to this Agreement in a manner that would require the registration under the Securities Act of the sale of the Securities to the Purchaser, or that will be integrated with the offer or sale of the Securities pursuant to this Agreement for purposes of the rules and regulations of the Nasdaq 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. The Purchaser shall take no action to become a group such that any transactions contemplated by this Agreement would require shareholder approval prior to Closing.

ARTICLE V
CONDITIONS TO CLOSING

5.1 Conditions Precedent to the Obligations of the Purchaser. The obligation of the Purchaser to acquire the 2019 Warrants and the 2018 Warrant Shares at the Closing is subject to the satisfaction or waiver by the Purchaser, at or before the Closing, of each of the following conditions:

(a) Representations and Warranties. The representations and warranties of the Company contained in Article II shall be true and correct in all respects as of the date of this Agreement and as of 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 as of such earlier date, and, the representations and warranties made by the Company in Article II hereof not qualified as to materiality shall be true and correct in all material respects as of the date hereof and 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.

(b) Performance. The Company shall have performed and complied, in all material respects, with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by the Company on or before the Closing, including, without limitation, the delivery by the Company of the items contemplated by Section 1.5(a).

(c) No Injunction. No statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or endorsed by any court or governmental authority of competent jurisdiction that prohibits the consummation of any of the transactions contemplated by the Transaction Documents.

(d) No Nasdaq Objection. Nasdaq shall have raised no objection to the consummation of the transactions contemplated by the Transaction Documents in the absence of stockholder approval of such transactions.

(e) Listing of Additional Shares. The Company shall have submitted a Listing of Additional Shares Notification with the Nasdaq covering all of the shares exercisable upon conversion of the 2019 Warrants.

(f) Registration Rights Agreement. The Company shall have executed and delivered the Registration Rights Agreement, and the Registration Rights Agreement shall be in full force and effect.

5.2 Conditions Precedent to the Obligations of the Company. The obligation of the Company to issue the 2019 Warrants and 2018 Warrant Shares at the Closing is subject to the satisfaction or waiver by the Company, at or before the Closing, of each of the following conditions:

(a) Representations and Warranties. The representations and warranties of the Purchaser contained in Article III shall be true and correct in all respects as of the Closing (unless as of a specific date therein in which case they shall be accurate as of such date).

(b) Performance. The Purchaser shall have performed, satisfied and complied in all material respects with all covenants, agreements and conditions required by the Transaction Documents to be performed, satisfied or complied with by the Purchaser at or prior to the Closing, including, without limitation, the delivery by the Purchaser of the items contemplated by Section 1.5(b).

(c) No Injunction. No statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or endorsed by any court or governmental authority of competent jurisdiction that prohibits the consummation of any of the transactions contemplated by the Transaction Documents

(d) No Nasdaq Objection. Nasdaq shall have raised no objection to the consummation of the transactions contemplated by the Transaction Documents in the absence of stockholder approval of such transactions.

(e) Registration Rights Agreement. The Purchaser shall have executed and delivered the Registration Rights Agreement, and the Registration Rights Agreement shall be in full force and effect.

(f) Exercise of 2018 Warrants. The Purchaser shall have fully completed and duly executed the Exercise Notice attached to the Purchaser's 2018 Warrant indicating that the Purchaser elects to exercise, for cash, the number of shares of Common Stock set forth opposite the Purchaser's name on Exhibit A hereto.

ARTICLE VI TERMINATION

6.1 Termination. In addition to the provisions of Section 7.6, in the event that the Closing shall not have occurred with respect to the Purchaser on or before ten (10) Business Days from the date hereof due to the Company's or the Purchaser's failure to satisfy the conditions set forth in Section 5 above (and the nonbreaching party's failure to waive such unsatisfied condition(s)), the nonbreaching party shall have the option to terminate this Agreement with respect to such breaching party at the close of business on such date without liability of any party to any other party.

ARTICLE VII MISCELLANEOUS

7.1 Survival of Warranties. Unless otherwise set forth in this Agreement, the representations and warranties of the Company and the Purchaser contained in or made pursuant to this Agreement shall survive the Closing and the delivery of the Securities.

7.2 No Finder's Fees. Each party represents that it neither is nor will be obligated for any finder's fee or commission in connection with this transaction. The Company agrees to indemnify and to hold harmless the Purchaser from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which the Company or any of its officers, employees or representatives is responsible. The Purchaser, severally and not jointly, agrees to indemnify and hold harmless the Company from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which the Purchaser or any of its officers, employees or representatives is responsible.

7.3 Fees and Expenses. Each party shall pay the fees and expenses of its advisors, counsel, accountants and other experts, if any, and all other expenses, incurred by such party incident to the negotiation, preparation, execution, delivery and performance of this Agreement.

7.4 Entire Agreement. The Transaction Documents, together with the Exhibits and Schedules thereto, contain the entire understanding of the parties with respect to the subject matter hereof and supersede all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules. At or after the Closing, and without further consideration, the Company will execute and deliver to the Purchaser, and the Purchaser will execute and deliver to the Company, such further documents as may be reasonably requested in order to give practical effect to the intention of the parties under the Transaction Documents.

7.5 Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of (a) the date of transmission, if such notice or communication is delivered via facsimile or email at the facsimile number or email address specified in this Section prior to 4:00 p.m. (New York City time) on a Trading Day, (b) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile or email at the facsimile number or email address specified in this Section on a day that is not a Trading Day or later than 4:00 p.m. (New York City time) on any Trading Day, (c) the Trading Day following the date of deposit with a nationally recognized overnight courier service, or (d) upon actual receipt by the party to whom such notice is required to be given. The addresses, facsimile numbers and email addresses for such notices and communications are those set forth below, or such other address or facsimile number as may be designated in writing hereafter, in the same manner, by any such Person:

If to the Company:	ZIOPHARM Oncology, Inc. 1 First Avenue Parris Building, #34 Boston, MA 02129 Attention: General Counsel Email: Fax No.:
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with copies (which copies	Cooley LLP
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shall not constitute notice
to the Company) to:

500 Boylston Street
Boston, MA 02116
Attention: Marc Recht
Email:
Fax No.:

If to the Purchaser:

7.6 Amendments; Waivers. This Agreement and any term hereof may be amended, terminated or waived only with the written consent of the Company and (i) with respect to an amendment, termination or waiver prior to the Closing, the Purchaser that will receive a majority of 2018 Warrant Shares to be issued at the Closing, and (ii) with respect to an amendment, termination or waiver prior to the Closing, the Purchaser holding at least a majority of the outstanding 2018 Warrant Shares then held by all Purchaser. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of either party to exercise any right hereunder in any manner impair the exercise of any such right.

7.7 Construction. The headings herein are for convenience only, do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

7.8 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns. The Company may not assign this Agreement or any rights or obligations hereunder without the prior written consent of the Purchaser; *provided, however*, that no such consent shall be required in connection with any assignment (i) occurring by operation of law in connection with any merger or consolidation to which the Company is a party, (ii) in connection with the acquisition of all or substantially all of the assets of the Company or (iii) any other similar business combination transaction involving the Company. The Purchaser may assign its rights under this Agreement only to a Person to whom the Purchaser assigns or transfers all Securities held by the Purchaser; *provided, that* (i) following such transfer or assignment, the further disposition of the Securities by the transferee or assignee is restricted under the Securities Act and applicable state securities laws, (ii) as a condition of such transfer, such transferee agrees in writing to be bound by all of the terms and conditions of this Agreement as a party hereto and (iii) such transfer shall have been made in accordance with the applicable requirements of this Agreement and with all laws applicable thereto.

7.9 Persons Entitled to Benefit of Agreement. This Agreement is intended for the benefit of the parties hereto and their respective permitted successors and assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other person.

7.10 Governing Law; Jurisdiction. This Agreement shall be governed by, and construed in accordance with, the internal laws of the Commonwealth of Massachusetts without regard to the choice of law principles thereof. Each of the parties hereto irrevocably submits to the exclusive jurisdiction of the state and federal courts located in the Commonwealth of Massachusetts 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. If any party hereto shall commence an action or proceeding to enforce any provisions of the Transaction Documents, then, the prevailing party in such action or proceeding shall be reimbursed by the non-prevailing party for its reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

7.11 Counterparts; Execution. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, e.g., www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

7.12 Severability. If any provision hereof should be held invalid, illegal or unenforceable in any respect, then, to the fullest extent permitted by law, (a) all other provisions hereof shall remain in full force and effect and shall be liberally construed in order to carry out the intentions of the parties as nearly as may be possible and (b) the parties shall use their best efforts to replace the invalid, illegal or unenforceable provision(s) with valid, legal and enforceable provision(s) which, insofar as practical, implement the purposes of such provision(s) in this Agreement.

7.13 Adjustments in Share Numbers and Prices. In the event of any stock split, subdivision, dividend or distribution payable in shares of Company Common Stock (or other securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly shares of Company Common Stock), combination or other similar recapitalization or event occurring after the date hereof, each reference in any Transaction Document to a number of shares or a price per share shall be deemed to be amended to appropriately account for such event.

[SIGNATURE PAGES TO FOLLOW]

IN WITNESS WHEREOF, the parties hereto have caused this Securities Issuance Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

THE COMPANY:

ZIOPHARM ONCOLOGY, INC.

By: _____

Laurence J.N. Cooper, M.D., Ph.D.
Chief Executive Officer

IN WITNESS WHEREOF, the parties hereto have caused this Securities Issuance Agreement to be duly executed by their respective authorized signatories as of the date first indicated above.

PURCHASER:

[PURCHASER]

By: _____

Name:

Title:

Address for Notice:

Telephone No.:

Facsimile No.:

E-mail Address:

Attention:

Exhibit A

SCHEDULE OF PURCHASER

**Name of Purchaser
and Address/Contact Information**

**Number of shares of Company
Common Stock Exercisable
pursuant to the 2019 Warrants**

**Number of Shares of Company
Common Stock to be issued
pursuant to the 2018 Warrant
Exercise**

**Aggregate Exercise Price to be paid
pursuant to the 2018 Warrant
Exercise**

Exhibit B

FORM OF WARRANT

[See Attached]

Exhibit C

STOCK REGISTRATION QUESTIONNAIRE

Pursuant to Section 1.5 of the Agreement, please provide us with the following information:

The exact name that the Securities are to be registered in (this is the name that will appear on the warrant(s) and common stock certificate(s) or Direct Registration System advice(s)):

The relationship between the Purchaser of the Securities and the Registered Purchaser listed in response to Item 1 above:

The mailing address, telephone and telecopy number of the Registered Purchaser listed in response to Item 1 above:

The Tax Identification Number (or, if an individual, the Social Security Number) of the Registered Purchaser listed in response to Item 1 above:

C AST Account Number of the Registered Purchaser listed in response to Item 1 above (indicate none if such Registered Purchaser does not yet have one):

Form of delivery of 2018 Warrant Shares:

Stock certificate(s):

Electronic book-entry in the Direct Registration System:

Exhibit D

REGISTRATION RIGHTS AGREEMENT

[See Attached]

Exhibit E

ACCREDITED INVESTOR QUALIFICATION QUESTIONNAIRE

INVESTOR SUITABILITY QUESTIONNAIRE
ZIOPHARM ONCOLOGY, INC.

This Questionnaire is being distributed to certain individuals and entities which may be offered the opportunity to purchase securities (the “*Securities*”) of **ZIOPHARM ONCOLOGY, INC.**, a Delaware corporation (the “*Company*”). The purpose of this Questionnaire is to assure the Company that all such offers and purchases will meet the standards imposed by the Securities Act of 1933, as amended (the “*Act*”), and applicable state securities laws.

All answers will be kept confidential. However, by signing this Questionnaire, the undersigned agrees that this information may be provided by the Company to its legal and financial advisors (including Cooley LLP), and the Company and such advisors may rely on the information set forth in this Questionnaire for purposes of complying with all applicable securities laws and may present this Questionnaire to such parties as it reasonably deems appropriate if called upon to establish its compliance with such securities laws. **The undersigned represents that the information contained herein is complete and accurate and will notify the Company of any material change in any of such information prior to the undersigned’s investment in the Company.**

FOR INDIVIDUAL INVESTORS

Accredited Investor Certification. The undersigned makes one of the following representations regarding its income or net worth and certain related matters **and has checked the applicable representation:**

- The undersigned’s income¹ during each of the last two years exceeded \$200,000 or, if the undersigned is married, the joint income of the undersigned and the undersigned’s spouse during each of the last two years exceed \$300,000, and the undersigned reasonably expects the undersigned’s income, from all sources during this year, will exceed \$200,000 or, if the undersigned is married, the joint income of undersigned and the undersigned’s spouse from all sources during this year will exceed \$300,000.
- The undersigned’s net worth,² including the net worth of the undersigned’s spouse, is in excess of \$1,000,000 (excluding the value of the undersigned’s primary residence).
- The undersigned cannot make any of the representations set forth above.

¹ For purposes of this Questionnaire, “*income*” means adjusted gross income, as reported for federal income tax purposes, increased by the following amounts: (a) the amount of any tax exempt interest income received, (b) the amount of losses claimed as a limited partner in a limited partnership, (c) any deduction claimed for depletion, (d) amounts contributed to an IRA or Keogh retirement plan, (e) alimony paid, and (f) any amounts by which income from long-term capital gains has been reduced in arriving at adjusted gross income pursuant to the provisions of Section 1202 of the Internal Revenue Code.

² For purposes of this Questionnaire, “*net worth*” means the excess of total assets, excluding your primary residence, at fair market value over total liabilities, including your mortgage or any other liability secured by your primary residence only if and to the extent that it exceeds the value of your primary residence. Net worth should include the value of any other shares of stock or options held by you and your spouse and any personal property owned by you or your spouse (e.g. furniture, jewelry, other valuables, etc.).

Accredited Investor Certification. The undersigned makes one of the following representations regarding its net worth and certain related matters **and has checked the applicable representation:**

- The undersigned is a trust with total assets in excess of \$5,000,000 whose purchase is directed by a person with such knowledge and experience in financial and business matters that such person is capable of evaluating the merits and risks of the prospective investment.
- The undersigned is a bank, insurance company, investment company registered under the United States Investment Company Act of 1940, as amended (the “Companies Act”), a broker or dealer registered pursuant to Section 15 of the United States Securities Exchange Act of 1934, as amended, a business development company, a Small Business Investment Company licensed by the United States Small Business Administration, a plan with total assets in excess of \$5,000,000 established and maintained by a state for the benefit of its employees, or a private business development company as defined in Section 202(a)(22) of the United States Investment Advisers Act of 1940, as amended.
- The undersigned is an employee benefit plan and *either* all investment decisions are made by a bank, savings and loan association, insurance company, or registered investment advisor, *or* the undersigned has total assets in excess of \$5,000,000 *or*, if such plan is a self-directed plan, investment decisions are made solely by persons who are accredited investors.
- The undersigned is a corporation, limited liability company, partnership, business trust, not formed for the purpose of acquiring the Securities, or an organization described in Section 501(c)(3) of the Internal Revenue Code of 1986, as amended (the “Code”), in each case with total assets in excess of \$5,000,000.
- The undersigned is an entity in which **all** of the equity owners (in the case of a revocable living trust, its grantor(s)) qualify under any of the above subparagraphs, or, if an individual, each such individual has a net worth,² either individually or upon a joint basis with such individual’s spouse, in excess of \$1,000,000 (within the meaning of such terms as used in the definition of “**accredited investor**” contained in Rule 501 under the Securities Act), *or* has had an individual income¹ in excess of \$200,000 for each of the two most recent years, or a joint income with such individual’s spouse in excess of \$300,000 in each of those years, and has a reasonable expectation of reaching the same income level in the current year.
- The undersigned cannot make any of the representations set forth above.

IN WITNESS WHEREOF, the undersigned has executed this Investor Suitability Questionnaire as of the date written below.

Name of Investor

(Signature)

Name of Signing Party (Please Print)

Title of Signing Party (Please Print)

Address

Address

Email

Date Signed

Exhibit F

“BAD ACTOR” QUESTIONNAIRE FORMS

[See Attached]

REGISTRATION RIGHTS AGREEMENT

THIS REGISTRATION RIGHTS AGREEMENT (this “**Agreement**”) is made and entered into as of September 12, 2019, by and between ZIOPHARM Oncology, Inc., a Delaware corporation (the “**Company**”), and the purchaser set forth on Schedule 1 hereto (the “**Purchaser**”), and shall become effective as of the Closing (as defined in the Issuance Agreement, defined below).

RECITALS

A. In connection with the Securities Issuance Agreement, by and between the Company and the Purchaser, dated as of September 12, 2019 (the “**Issuance Agreement**”), the Company has agreed, upon the terms and conditions stated in the Issuance Agreement, to issue to the Purchaser on the Closing Date a warrant to acquire the number of shares of Company Common Stock set forth opposite the Purchaser’s name on Schedule 1 hereto (each a “**Warrant**” and collectively, the “**Warrants**”).

B. To induce the Purchaser to execute and deliver the Issuance Agreement, the Company has agreed to provide certain registration rights under the Securities Act, and applicable state securities laws.

AGREEMENT

NOW, THEREFORE, IN CONSIDERATION of the mutual covenants contained in this Agreement, and for other good and valuable consideration the receipt and adequacy of which are hereby acknowledged, the Company and the Purchaser agree as follows:

ARTICLE I
DEFINITIONS

Capitalized terms used and not otherwise defined herein shall have the meanings given such terms in the Issuance Agreement. As used in this Agreement, the following terms shall have the following meanings:

“**Affiliate**” means, with respect to any Person, any other Person that directly or indirectly controls or is controlled by or under common control with such Person. For the purposes of this definition, “**control**,” when used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise; and the terms “**affiliated**,” “**controlling**” and “**controlled**” have meanings correlative to the foregoing.

“**Board**” means the Board of Directors of the Company.

“**Business Day**” means any day except Saturday, Sunday and any day which shall be a legal holiday or a day on which banking institutions in the state of New York generally are authorized or required by law or other government actions to close.

“Closing Date” means the date of the closing of the issuance of the Warrants pursuant to the Issuance Agreement.

“Commission” means the Securities and Exchange Commission.

“Company Common Stock” means the Company’s common stock, par value \$0.001 per share.

“Effectiveness Date” means the date the Registration Statement has been declared effective by the Commission.

“Effectiveness Period” shall have the meaning set forth in Article II.

“Exchange Act” means the Securities Exchange Act of 1934, as amended.

“Filing Date” means the sixtieth (60th) Business Day following the Closing Date; provided, however, that if the Filing Date falls on a day that is not a Business Day, then the Filing Date shall be extended to the next Business Day.

“Holder” or **“Holders”** means the holder or holders, as the case may be, from time to time of Registrable Securities.

“Indemnified Party” shall have the meaning set forth in Section 5.3(a).

“Indemnifying Party” shall have the meaning set forth in Section 5.3(a).

“Losses” shall have the meaning set forth in Section 5.1.

“Person” means an individual or a corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or political subdivision thereof) or other entity of any kind.

“Proceeding” means an action, claim, suit, investigation or proceeding (including, without limitation, an investigation or partial proceeding, such as a deposition), whether commenced or threatened.

“Prospectus” means any prospectus included in a Registration Statement (including, without limitation, a prospectus that includes any information previously omitted from a prospectus filed as part of an effective registration statement in reliance upon Rule 430A promulgated under the Securities Act), 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 a Registration Statement, and all other amendments and supplements to any such Prospectus, including post-effective amendments, and all material incorporated by reference in such Prospectus.

“**Registrable Securities**” means shares of Company Common Stock issued or issuable to the Purchaser upon exercise of the Warrants; *provided, however,* that the applicable Holder has completed and delivered to the Company a Selling Stockholder Questionnaire; and provided further that such securities shall no longer be deemed Registrable Securities if (i) such securities have been sold pursuant to a Registration Statement, (ii) such securities have been sold in compliance with Rule 144, or (ii) all such securities may be sold without limitation or restriction pursuant to Rule 144.

“**Registration Statement**” means the registration statements and any additional registration statements contemplated by Article II, including (in each case) the related Prospectus, amendments and supplements to such registration statement or Prospectus, including pre- and post-effective amendments, all exhibits thereto, and all material incorporated by reference in such registration statement. “Registration Statement” shall include the Company’s existing automatic Registration Statement on Form S-3 filed on June 21, 2019 (File no. 333-232283) if the Company elects to file a post-effective amendment or a prospectus supplement pursuant to such Registration Statement that would be deemed to be part of such existing automatic Registration Statement in accordance with Rule 430B under the Securities Act and would permit the sale and distribution of all the Registrable Securities (an “**ASR Pro Supp**”).

“**Rule 144**” means Rule 144 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as such Rule.

“**Rule 415**” means Rule 415 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same effect as such Rule.

“**Securities Act**” means the Securities Act of 1933, as amended.

“**Selling Stockholder Questionnaire**” means a questionnaire in the form attached as Annex B hereto, or such other form of questionnaire as may reasonably be requested by the Company from time to time.

“**Transaction Documents**” means this Agreement, the Issuance Agreement, and the schedules and exhibits attached hereto and thereto.

ARTICLE II REGISTRATION

2.1 Registration Obligations; Filing Date Registration. The Company shall use reasonable best efforts to prepare and file with the Commission on or prior to the Filing Date a Registration Statement covering the resale of the Registrable Securities as would permit the sale and distribution of all the Registrable Securities from time to time pursuant to Rule 415 in the manner reasonably requested by the Holder. The Registration Statement shall be on Form S-3 (except if the Company is not then eligible to register for resale the Registrable Securities on Form S-3, in which case such registration shall be on another appropriate form in accordance with the Securities Act and the rules promulgated thereunder and the Company shall undertake to register the Registrable Securities on Form S-3 as soon as practicable following the availability of such form, provided that the Company shall use reasonable best efforts to maintain the effectiveness of the Registration Statement then in effect until such time as a Registration Statement on Form S-3 covering the Registrable Securities has been declared effective by the

Commission). The Registration Statement shall contain the “Plan of Distribution” section in substantially the form attached hereto as Annex A. The Company shall use reasonable best efforts to cause the Registration Statement filed by it to be declared effective under the Securities Act as promptly as practicable after the filing thereof but in any event on or prior to the Effectiveness Date, and, subject to Section 3.1(m) hereof, to keep such Registration Statement continuously effective under the Securities Act until the earlier of (i) such date as all Registrable Securities covered by such Registration Statement have ceased to be Registrable Securities or (ii) the date that is two (2) years following the Closing Date (the “**Effectiveness Period**”). If an ASR Pro Supp is not used to comply with this Section 2.1, then by 4:00 p.m. (New York City time) on the Business Day following the Effectiveness Date, the Company shall file with the Commission in accordance with Rule 424 under the Securities Act the final prospectus to be used in connection with sales pursuant to such Registration Statement. For the avoidance of doubt, the Company may elect, in its sole discretion, to satisfy its obligations pursuant to this Agreement by filing an ASR Pro Supp on or prior to the Filing Date in lieu of a new Registration Statement, in which case the Company shall have satisfied its obligations pursuant to this Section 2.1 in full, and such ASR Pro Supp shall constitute a “Registration Statement” for all purposes under this Agreement, with such necessary changes in the details of the provisions of this Agreement as are necessitated by the context, including, without limitation, to take into account that the ASR Pro Supp is a Prospectus filed after the effectiveness of a Registration Statement and not a newly filed Registration Statement.

2.2 Effect of Failure to File Registration Statement. If (i) a Registration Statement (including by the amendment or supplement of an existing automatic shelf registration statement) covering all of the Registrable Securities required to be covered thereby and required to be filed by the Company pursuant to this Agreement is not filed with the Commission within 120 Business Days following the Closing Date (a “**Filing Failure**”), then, in satisfaction of the damages to any holder of Registrable Securities by reason of any such delay in or reduction of its ability to sell the underlying shares of Company Common Stock (which remedy shall not be exclusive of any other remedies available at law or in equity), the Company shall pay to each such holder of Registrable Securities relating to such Registration Statement an amount in cash equal to one half of one percent (0.5%) of the aggregate 2019 Warrant Exercise Price (as such term is defined in the Issuance Agreement) of such Holder’s Registrable Securities included in such Registration Statement or ASR Pro Supp, as applicable, on the day of a Filing Failure and on every thirtieth day (pro rated for shorter periods) thereafter until such Filing Failure is cured. The payments to which a Holder shall be entitled pursuant to this Section 2.2 are referred to herein as “**Registration Delay Payments.**” Registration Delay Payments shall be paid on the earlier of (i) the last day of the calendar month during which such Registration Delay Payments are incurred and (ii) the third (3rd) Business Day after the event or failure giving rise to the Registration Delay Payments is cured. In the event the Company fails to make Registration Delay Payments in a timely manner, such Registration Delay Payments shall bear simple interest at the rate of three percent (3.0%) of such unpaid Registration Delay Payment per annum (pro rated for shorter periods) until paid in full. Notwithstanding anything to the contrary herein or in the Issuance Agreement, in no event shall the aggregate amount of Registration Delay Payments exceed, in the aggregate, five percent (5%) of the aggregate 2019 Warrant Exercise Price of the Warrants.

ARTICLE III
REGISTRATION PROCEDURES

3.1 Registration Procedures. In connection with the Company's registration obligations hereunder, the Company shall:

(a) Prepare and file with the Commission on or prior to the Filing Date, (including by the amendment or supplement of an existing automatic shelf registration statement) a Registration Statement on Form S-3 (or if the Company is not then eligible to register for resale the Registrable Securities on Form S-3 such Registration Statement shall be on another appropriate form in accordance with the Securities Act and the rules and regulations promulgated thereunder) in accordance with the method or methods of distribution thereof as described on Annex A hereto (except if otherwise directed by all of the Holders) , and use reasonable best efforts to cause the Registration Statement to become effective and remain effective as provided herein.

(b) Prepare and file with the Commission such amendments, including post-effective amendments, to the Registration Statement as may be necessary to keep the Registration Statement continuously effective (subject to Section 3.1(m)) as to the applicable Registrable Securities for the Effectiveness Period and prepare and file with the Commission such additional Registration Statements, if necessary, in order to register for resale under the Securities Act all of the Registrable Securities; cause the related Prospectus to be amended or supplemented by any required Prospectus supplement, and as so supplemented or amended to be filed pursuant to Rule 424 (or any similar provisions then in force) promulgated under the Securities Act; respond promptly to any comments received from the Commission with respect to the Registration Statement or any amendment thereto and promptly provide the Holders true and complete copies of all correspondence from and to the Commission relating to such Registration Statement; and comply in all material respects with the provisions of the Securities Act and the Exchange Act with respect to the disposition of all Registrable Securities covered by the Registration Statement during the applicable period in accordance with the intended methods of disposition by the Holders thereof set forth in the Registration Statement as so amended or in such Prospectus as so supplemented.

(c) At the time the Commission declares the Registration Statement effective or at the time an ASR Pro Supp is filed, as applicable, each Holder shall be named as a selling stockholder in the Registration Statement and the related Prospectus in such a manner as to permit such Holder to deliver such Prospectus to purchasers of Registrable Securities included in the Registration Statement in accordance with applicable law, subject to the terms and conditions hereof. From and after the date the Registration Statement is declared effective, any Holder not named as a selling stockholder in the Registration Statement at the time of effectiveness or ASR Pro Supp at the time it is filed, as applicable, may request that the Company amend or supplement the Registration Statement or Prospectus, as applicable to include such Holder as a selling stockholder, and the Company shall, as promptly as practicable and in any event upon the later of (x) ten (10) Business Days after such date or (y) ten (10) Business Days after the expiration of any Deferral Period (as defined in Section 3.1(m)) that is either in effect or put into effect within ten (10) Business Days of such date:

(i) if required by applicable law, prepare and file with the Commission a post-effective amendment to the Registration Statement or prepare and, if required by applicable law, file a supplement to the related Prospectus or a supplement or amendment to any document incorporated therein by reference or file with the Commission any other required document so that the Holder is named as a selling stockholder in the Registration Statement and the related Prospectus in such a manner as to permit such Holder to deliver such Prospectus to purchasers of such Holder's Registrable Securities included in the Shelf Registration Statement in accordance with applicable law and, if the Company shall file a post-effective amendment to the Registration Statement, use its reasonable best efforts to cause such post-effective amendment to be declared effective under the Securities Act as promptly as is practicable, but in any event by the date that is sixty (60) days after the date such post-effective amendment is required by this clause to be filed;

(ii) provide such Holder copies of any documents filed pursuant to Section 3.1(c)(i); and

(iii) notify such Holder as promptly as practicable after the effectiveness under the Securities Act of any post-effective amendment filed pursuant to Section 3.1(c)(i);

(d) Promptly notify the Holders of Registrable Securities (i)(A) when a Registration Statement, a Prospectus or any Prospectus supplement or pre- or post-effective amendment to the Registration Statement is filed; (B) when the Commission notifies the Company whether there will be a "review" of such Registration Statement and whenever the Commission comments in writing on such Registration Statement, and if requested by such Holders, furnish to them a copy of such comments and the Company's responses thereto and (C) with respect to the Registration Statement or any post-effective amendment filed by the Company, when the same has become effective; (ii) of any request by the Commission or any other Federal or state governmental authority for amendments or supplements to the Registration Statement or Prospectus or for additional information of the Company; (iii) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement covering any or all of the Registrable Securities or the initiation of any Proceedings for that purpose; (iv) of the receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities of the Company for sale in any jurisdiction, or the initiation or threatening of any Proceeding for such purpose; and (v) of the occurrence of any event that makes any statement made in the Registration Statement or Prospectus or any document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires any revisions to such Registration Statement, Prospectus or other documents so that, in the case of such Registration Statement or the Prospectus, as the case may be, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(e) Use reasonable best efforts to avoid the issuance of, and, if issued, to obtain the withdrawal of, (i) any order suspending the effectiveness of the Registration Statement or (ii) any suspension of the qualification (or exemption from qualification) of any of the Registrable Securities for sale in any U.S. jurisdiction.

(f) If requested by the Holders of a majority of the Registrable Securities, (i) promptly incorporate in a Prospectus supplement or post-effective amendment to the Registration Statement such information as such Holders reasonably request to be included therein unless the inclusion of such information would reasonably be expected to expose the Company to liability under federal and state securities laws and regulations and (ii) make all required filings of such Prospectus supplement or such post-effective amendment as soon as practicable after the Company has received notification of the matters to be incorporated in such Prospectus supplement or post-effective amendment.

(g) Furnish to each Holder, without charge and upon request, at least one conformed copy of each Registration Statement and each amendment thereto, including financial statements and schedules, and, to the extent requested by such Person, all documents incorporated or deemed to be incorporated therein by reference, and all exhibits (including those previously furnished or incorporated by reference) promptly after the filing of such documents with the Commission, *provided*, that the Company shall have no obligation to provide any document pursuant to this clause that is available on the Commission's EDGAR system.

(h) Promptly deliver to each Holder, without charge, as many copies of the Prospectus or Prospectuses (including each form of prospectus) and each amendment or supplement thereto as such Persons may reasonably request; and the Company hereby consents to the use of such Prospectus and each amendment or supplement thereto by each of the selling Holders in connection with the offering and sale of the Registrable Securities covered by such Prospectus and any amendment or supplement thereto to the extent permitted by federal and state securities laws and regulations.

(i) Cooperate with the Holders to facilitate the timely preparation and delivery of certificates representing Registrable Securities of the Company to be sold pursuant to a Registration Statement.

(j) Upon the occurrence of any event contemplated by Section 3.1(d)(v), as promptly as practicable prepare a supplement or amendment, including a post-effective amendment, to the Registration Statement or a supplement to the related Prospectus or any document incorporated or deemed to be incorporated therein by reference, and file any other required document so that, as thereafter delivered, neither the Registration Statement nor such Prospectus will contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(k) Use reasonable best efforts to cause all Registrable Securities relating to the Registration Statement to be listed on the Nasdaq Stock Market, LLC or any subsequent securities exchange, quotation system or market, if any, on which similar securities issued by the Company are then listed or traded.

(l) The Company may require each selling Holder to furnish to the Company information regarding such Holder and the distribution of such Registrable Securities as is required by law to be disclosed in the Registration Statement, and the Company may exclude from such registration the Registrable Securities of any such Holder who fails to furnish such information within fifteen (15) days after receiving such request.

(m) If (i) there is material non-public information regarding the Company which the Board reasonably determines not to be in the Company's best interest to disclose and which the Company is not otherwise required to disclose, or (ii) there is a significant business opportunity (including, but not limited to, the acquisition or disposition of assets (other than in the ordinary course of business) or any merger, consolidation, tender offer or other similar transaction) available to the Company which the Board reasonably determines not to be in the Company's best interest to disclose, then the Company may postpone or suspend filing or effectiveness of a Registration Statement for a period (a "**Deferral Period**") not to exceed sixty (60) consecutive days, provided that the Company may not postpone or suspend its obligation under this Section 3.1(m) for more than ninety (90) days in the aggregate during any 12-month period; provided, however, that no such postponement or suspension by the Company shall be permitted for more than one sixty (60) day period, arising out of the same set of facts, circumstances or transactions.

(n) The Company shall use reasonable best efforts to register or qualify, or cooperate with the Holders of the Registrable Securities included in the Registration Statement in connection with the registration or qualification of, the resale of the Registrable Securities under applicable securities or "blue sky" laws of such states of the United States as any such Holder requests in writing and to do any and all other acts or things necessary or advisable to enable the offer and sale in such jurisdictions of the Registrable Securities covered by the Registration Statement; provided, however, that the Company shall not be required to (i) qualify generally to do business in any jurisdiction where it is not then so qualified or (ii) take any action that would subject it to general service of process or to taxation in any jurisdiction to which it is not then so subject.

(o) The Company will comply with all rules and regulations of the Commission to the extent and so long as they are applicable to the Registration and will make generally available to its security holders (or otherwise provide in accordance with Section 11(a) of the Securities Act) an earnings statement (which need not be audited) satisfying the provisions of Section 11(a) of the Securities Act and Rule 158 thereunder, no later than 45 days after the end of a 12-month period (or 90 days, if such period is a fiscal year) beginning with the Company's first fiscal quarter commencing after the effective date of the Registration Statement.

3.2 Holder Obligations.

(a) At least five (5) Business Days prior to the first anticipated filing date of a Registration Statement or ASR Pro Supp, the Company shall notify each Holder in writing of the information the Company requires from each such Holder if such Holder elects to have any of such Holder's Registrable Securities included in such Registration Statement or ASR Pro Supp. It shall be a condition precedent to the obligations of the Company to complete the registration pursuant to this Agreement with respect to the Registrable Securities of a particular Holder that (i) such Holder furnish 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 effectiveness of the registration of such Registrable Securities, and (ii) the Holder execute such documents in connection with such registration as the Company may reasonably request

(b) Each Holder covenants and agrees by its acquisition of such Registrable Securities that (i) it will not sell any Registrable Securities under the Registration Statement until it has received copies of the Prospectus as then amended or supplemented as contemplated in Section 3.1(h) and notice from the Company that such Registration Statement and any post-effective amendments thereto have become effective as contemplated by Section 3.1(d) and (ii) it and its officers, directors or Affiliates, if any, will comply with the prospectus delivery requirements of the Securities Act as applicable to them in connection with sales of Registrable Securities pursuant to the Registration Statement.

(c) Upon receipt of a notice from the Company of the occurrence of any event of the kind described in Section 3.1(d)(ii), 3.1(d)(iii), 3.1(d)(iv), 3.1(d)(v) or 3.1(m), such Holder will forthwith discontinue disposition of such Registrable Securities under the Registration Statement until such Holder's receipt of the copies of the supplemented Prospectus and/or amended Registration Statement contemplated by Section 3.1(j), or until it is advised in writing by the Company that the use of the applicable Prospectus may be resumed, and, in either case, has received copies of any additional or supplemental filings that are incorporated or deemed to be incorporated by reference in such Prospectus or Registration Statement.

(d) Such Holder is bound by the "Lock Up" provisions of Section 4.1 of the Issuance Agreement and notwithstanding any provision of this Agreement, such Holder will not sell, transfer, pledge, lend, offer or otherwise dispose of any Registrable Securities except in compliance with Section 4.1 of the Issuance Agreement.

ARTICLE IV REGISTRATION EXPENSES

4.1 Registration Expenses. All reasonable fees and expenses incident to the performance of or compliance with this Agreement by the Company (excluding underwriters' discounts and commissions and all fees and expenses of legal counsel, accountants and other advisors for the Purchaser except as specifically provided below), except as and to the extent specified in this Section 4.1, shall be borne by the Company whether or not a Registration Statement is filed by the Company or becomes effective and whether or not any Registrable Securities are sold pursuant to a Registration Statement. The fees and expenses referred to in the foregoing sentence shall include, without limitation, (i) all registration and filing fees (including, without limitation, fees and expenses (A) with respect to filings required to be made with the Nasdaq Stock Market, LLC and each other securities exchange or market on which Registrable Securities are required hereunder to be listed, (B) with respect to filings required to be made by the Company with the Financial Industry Regulatory Authority and (C) in compliance with state securities or Blue Sky laws by the Company or with respect to Registrable Securities, (ii) messenger, telephone and delivery expenses, (iii) fees and disbursements of counsel for the Company, (iv) Securities Act liability insurance, if the Company so desires such insurance, and (v) fees and expenses of all other Persons retained by the Company in connection with the consummation of the transactions contemplated by this Agreement, including, without limitation, the Company's independent public accountants). In addition, the Company shall be responsible

for all of its internal expenses incurred in connection with the consummation of the transactions contemplated by this Agreement (including, without limitation, all salaries and expenses of its officers and employees performing legal or accounting duties), the expense of any annual audit, the fees and expenses incurred in connection with the listing of the Registrable Securities on any securities exchange as required hereunder. In no event shall the Company be responsible for any underwriting, broker or similar fees or commissions of the Purchaser or, except to the extent provided for above or in the Transaction Documents, any legal fees or other costs of the Purchaser.

ARTICLE V INDEMNIFICATION

5.1 Indemnification by the Company. The Company shall, notwithstanding any termination of this Agreement, indemnify and hold harmless each Holder, its permitted assignees, officers, directors, agents, brokers (including brokers who offer and sell Registrable Securities as principal as a result of a pledge or any failure to perform under a margin call of Company Common Stock), underwriters, investment advisors and employees, each Person who controls any such Holder or permitted assignee (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) and the officers, directors, agents and employees of each such controlling Person, and the respective successors, assigns, estate and personal representatives of each of the foregoing, to the fullest extent permitted by applicable law, from and against any and all claims, losses, damages, liabilities, penalties, judgments, costs (including, without limitation, costs of investigation) and expenses (including, without limitation, reasonable attorneys' fees and expenses) (collectively, "**Losses**"), arising out of or relating to any untrue or alleged untrue statement of a material fact contained in the Registration Statement, any Prospectus, as supplemented or amended, if applicable, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or form of prospectus or supplement thereto, in the light of the circumstances under which they were made) not misleading, except (i) to the extent, but only to the extent, that such untrue statements or omissions or alleged untrue statements or omissions are based upon information regarding such Holder furnished in writing to the Company by such Holder expressly for use in such Registration Statement, such Prospectus or in any amendment or supplement thereto or to the extent that such information relates to such Holder or such Holder's proposed method of distribution of Registrable Securities and was furnished in writing by such Holder expressly for use therein (it being understood that each Holder has approved Annex A hereto for this purpose); or (ii) in the case of an occurrence of an event of the type specified in Section 3.1(d)(ii)-(v), the use by a Holder of an outdated or defective Prospectus, but only if and to the extent that following such receipt the misstatement or omission giving rise to such Loss would have been corrected; provided, however, that the indemnity agreement contained in this Section 5.1 shall not apply to amounts paid in settlement of any Losses if such settlement is effected without the prior written consent of the Company, which consent shall not be unreasonably withheld. The Company shall notify such Holder promptly of the institution, threat or assertion of any Proceeding of which the Company is aware in connection with the transactions contemplated by this Agreement. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of an Indemnified Party (as defined in Section 5.3(a) hereof) and shall survive the transfer of the Registrable Securities by the Holder.

5.2 Indemnification by Holders. Each Holder and its permitted assignees shall, severally and not jointly, indemnify and hold harmless the Company, its directors, officers, agents and employees, each Person who controls the Company (within the meaning of Section 15 of the Securities Act and Section 20 of the Exchange Act), and the directors, officers, agents or employees of such controlling Persons, and the respective successors, assigns, estate and personal representatives of each of the foregoing, to the fullest extent permitted by applicable law, from and against all Losses, as incurred, arising out of or relating to any untrue or alleged untrue statement of a material fact contained in any Registration Statement, any Prospectus, as supplemented or amended, if applicable, or arising out of or relating to any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein (in the case of any Prospectus or supplement thereto, in the light of the circumstances under which they were made) not misleading, to the extent, but only to the extent, that such untrue statement or omission or alleged untrue statement or omission is contained in or omitted from any information regarding such Holder furnished in writing to the Company by such Holder expressly for use in therein, and that such information was reasonably relied upon by the Company for use therein, or to the extent that such information relates to such Holder or such Holder's proposed method of distribution of Registrable Securities and was furnished in writing by such Holder expressly for use therein (it being understood that each Holder has approved Annex A hereto for this purpose); *provided, however*, that in no event shall a Holder's liability pursuant to this Subsection 5.2, exceed the proceeds from the offering received by such Holder, except in the case of willful misconduct or fraud by such Holder.

5.3 Conduct of Indemnification Proceedings.

(a) If any Proceeding shall be brought or asserted against any Person entitled to indemnity hereunder (an "**Indemnified Party**"), such Indemnified Party promptly shall notify the Person from whom indemnity is sought (the "**Indemnifying Party**") in writing, and the Indemnifying Party shall assume the defense thereof, including the employment of counsel reasonably satisfactory to the Indemnified Party and the payment of all fees and expenses incurred in connection with defense thereof; provided, that the failure of any Indemnified Party to give such notice shall not relieve the Indemnifying Party of its obligations or liabilities pursuant to this Agreement, except (and only) to the extent that it shall be finally determined by a court of competent jurisdiction (which determination is not subject to appeal or further review) that such failure shall have proximately and materially adversely prejudiced the Indemnifying Party.

(b) An Indemnified Party shall have the right to employ separate counsel in any such Proceeding and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party or Parties unless: (1) the Indemnifying Party has agreed in writing to pay such fees and expenses; or (2) the Indemnifying Party shall have failed promptly to assume the defense of such Proceeding and to employ counsel reasonably satisfactory to such Indemnified Party in any such Proceeding; or (3) the named parties to any such Proceeding (including any impleaded parties) include both such Indemnified Party and the Indemnifying Party, and such Indemnified Party shall have been advised by counsel (which shall be reasonably acceptable to the Indemnifying Party) that a conflict of interest is likely to exist if the same counsel were to represent such Indemnified Party and the Indemnifying Party (in which case, the Indemnifying Party shall be responsible for reasonable

fees and expenses of no more than one counsel (together with appropriate local counsel) for the Indemnified Parties). The Indemnifying Party shall not be liable for any settlement of any such Proceeding effected without its written consent, which consent shall not be unreasonably withheld or delayed. No Indemnifying Party shall, without the prior written consent of the Indemnified Party, effect any settlement of any pending Proceeding in respect of which any Indemnified Party is or could have been a party, unless such settlement (i) includes an unconditional release of such Indemnified Party from all liability on claims that are the subject matter of such Proceeding and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any Indemnified Party.

(c) All reasonable fees and expenses of the Indemnified Party (including reasonable fees and expenses to the extent incurred in connection with investigating or preparing to defend such Proceeding in a manner not inconsistent with this Section) shall be paid to the Indemnified Party, as incurred, within twenty (20) Business Days of written notice thereof to the Indemnifying Party (regardless of whether it is ultimately determined that an Indemnified Party is not entitled to indemnification hereunder; provided, that the Indemnifying Party may require such Indemnified Party to undertake to reimburse all such fees and expenses to the extent it is finally judicially determined that such Indemnified Party is not entitled to indemnification hereunder).

5.4 Contribution.

(a) If a claim for indemnification under Section 5.1 or 5.2 is unavailable to an Indemnified Party because of a failure or refusal of a governmental authority to enforce such indemnification in accordance with its terms (by reason of public policy or otherwise), then each Indemnifying Party, in lieu of indemnifying such Indemnified Party, shall contribute to the amount paid or payable by such Indemnified Party as a result of such Losses, in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party and Indemnified Party in connection with the actions, statements or omissions that resulted in such Losses as well as any other relevant equitable considerations. The relative fault of such Indemnifying Party and Indemnified Party shall be determined by reference to, among other things, whether any action in question, including any untrue or alleged untrue statement of a material fact or omission or alleged omission of a material fact, has been taken or made by, or relates to information supplied by, such Indemnifying Party or Indemnified Party, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such action, statement or omission. The amount paid or payable by a party as a result of any Losses shall be deemed to include, subject to the limitations set forth in Section 5.3, any reasonable attorneys' or other reasonable fees or expenses incurred by such party in connection with any Proceeding to the extent such party would have been indemnified for such fees or expenses if the indemnification provided for in this Section was available to such party in accordance with its terms.

(b) The parties hereto agree that it would not be just and equitable if contribution pursuant to this Section 5.4 were determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to in the immediately preceding paragraph. No Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation.

(c) The indemnity and contribution agreements contained in this Article V are in addition to any liability that the Indemnifying Parties may have to the Indemnified Parties.

ARTICLE VI
RULE 144

6.1 Rule 144. As long as any Holder owns any Registrable Securities, the Company covenants to use its commercially reasonable efforts to timely file (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed by the Company after the date hereof pursuant to Section 13(a) or 15(d) of the Exchange Act. The Company further covenants that it will take such further action as any Holder may reasonably request, all to the extent required from time to time to enable such Person to sell the Registrable Securities without registration under the Securities Act within the limitation of the exemptions provided by Rule 144 promulgated under the Securities Act, including providing any legal opinions relating to such sale pursuant to Rule 144. Upon the request of any Holder, the Company shall deliver to such Holder a written certification of a duly authorized officer as to whether it has complied with such requirements.

ARTICLE VII
MISCELLANEOUS

7.1 Effectiveness. The Company's obligations hereunder shall be conditioned upon the occurrence of the Closing under the Issuance Agreement, and this Agreement shall not be effective until such Closing. If the Issuance Agreement shall be terminated prior to the Closing, then this Agreement shall be void and of no further force or effect (and no party hereto shall have any rights or obligations with respect to this Agreement).

7.2 Remedies. In the event of a breach by the Company or by a Holder, of any of their obligations under this Agreement, each non-breaching Holder and Company, as the case may be, in addition to being entitled to exercise all rights granted by law and under this Agreement, including recovery of damages, will be entitled to specific performance of its rights under this Agreement. The Company and each Holder agree that monetary damages would not provide adequate compensation for any losses incurred by reason of a breach by it of any of the provisions of this Agreement and hereby further agrees that, in the event of any action for specific performance in respect of such breach, it shall waive the defense that a remedy at law would be adequate.

7.3 Entire Agreement; Amendment. This Agreement and the other Transaction Documents contain the entire understanding and agreement of the parties with respect to the matters covered hereby and, except as specifically set forth herein or therein, neither the Company nor any Holder make any representation, warranty, covenant or undertaking with respect to such matters, and they supersede all prior understandings and agreements with respect to said subject matter, all of which are merged herein. This Agreement and any term hereof may be amended, terminated or waived only with the written consent of the Company and the Holders of at least a majority of all outstanding Registrable Securities then held by all Holders. Any amendment or waiver effected in accordance with this Section 7.3 shall be binding upon each Holder (and their permitted assigns).

7.4 No Inconsistent Agreements. The Company will not on or after the date of this Agreement enter into any agreement with respect to its securities that is inconsistent with the rights granted to the Holders in this Agreement or otherwise conflicts with the provisions hereof. The rights granted to the Holders hereunder do not in any way conflict with and are not inconsistent with the rights granted to the holders of the Company's securities under any agreement in effect on the date hereof.

7.5 Notices. Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of (a) the date of transmission, if such notice or communication is delivered via facsimile or email at the facsimile number or email address specified in this Section prior to 4:00 p.m. (New York City time) on a Trading Day, (b) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile or email at the facsimile number or email address specified in this Section on a day that is not a Trading Day or later than 4:00 p.m. (New York City time) on any Trading Day, (c) the Trading Day following the date of deposit with a nationally recognized overnight courier service, or (d) upon actual receipt by the party to whom such notice is required to be given. The addresses, facsimile numbers and email addresses for such notices and communications are those set forth below, or such other address or facsimile number as may be designated in writing hereafter, in the same manner, by any such Person:

If to the Company:

ZIOPHARM Oncology, Inc.
1 First Avenue
Parris Building, #34
Boston, MA 02129
Attention: General Counsel
Email:
Fax No.:

with copies (which copies shall not constitute notice to the Company) to:

Cooley LLP
500 Boylston Street
Boston, MA 02116
Attention: Marc Recht
Email:
Fax No.:

If to the Purchaser:

7.6 Waivers. No waiver by either party of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of any party to exercise any right hereunder in any manner impair the exercise of any such right accruing to it thereafter.

7.7 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns and shall inure to the benefit of each Holder and its successors and assigns. The Company may not assign this Agreement or any of its rights or obligations hereunder without the prior written consent of the Holders of at least a majority of all Registrable Securities then outstanding.

7.8 Assignment of Registration Rights. The rights of each Holder hereunder, including the right to have the Company register for resale Registrable Securities in accordance with the terms of this Agreement, shall be assignable by each Holder of all or a portion of the Registrable Securities if: (i) the Holder agrees in writing with the transferee or assignee to assign such rights, and a copy of such agreement is furnished to the Company within a reasonable time after such assignment, (ii) the Company is, within a reasonable time after such transfer or assignment, furnished with written notice of (a) the name and address of such transferee or assignee, and (b) the Registrable Securities with respect to which such registration rights are being transferred or assigned to such transferee or assignee, (iii) following such transfer or assignment the further disposition of such securities by the transferee or assignees is restricted under the Securities Act and applicable state securities laws, (iv) at or before the time the Company receives the written notice contemplated by clause (ii) of this Section, the transferee or assignee agrees in writing with the Company to be bound by all of the provisions of this Agreement, and (v) such transfer shall have been made in accordance with the applicable requirements of the Issuance Agreement. The rights to assignment shall apply to the Holders (and to subsequent) successors and assigns.

7.9 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, e.g., www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

7.10 Termination. This Agreement shall terminate at the end of the Effectiveness Period, except that Articles IV and V and this Article VII shall remain in effect in accordance with their terms.

7.11 Governing Law; Jurisdiction. This Agreement shall be governed by, and construed in accordance with, the internal laws of the Commonwealth of Massachusetts without regard to the choice of law principles thereof. Each of the parties hereto irrevocably submits to the exclusive jurisdiction of the state and federal courts located in the Commonwealth of Massachusetts 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. If any party hereto shall

commence an action or proceeding to enforce any provisions of the Transaction Documents, then, the prevailing party in such action or proceeding shall be reimbursed by the non-prevailing party for its reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

7.12 Cumulative Remedies. The remedies provided herein are cumulative and not exclusive of any remedies provided by law.

7.13 Severability. If any provision hereof should be held invalid, illegal or unenforceable in any respect, then, to the fullest extent permitted by law, (a) all other provisions hereof shall remain in full force and effect and shall be liberally construed in order to carry out the intentions of the parties as nearly as may be possible and (b) the parties shall use their best efforts to replace the invalid, illegal or unenforceable provision(s) with valid, legal and enforceable provision(s) which, insofar as practical, implement the purposes of such provision(s) in this Agreement.

7.14 Construction. The headings herein are for convenience only, do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

[SIGNATURE PAGES TO FOLLOW]

IN WITNESS WHEREOF, the parties hereto have caused this Registration Rights Agreement to be duly executed by their respective authorized officers as of the date first above written.

THE COMPANY:

ZIOPHARM ONCOLOGY, INC.

By: _____

Laurence J.N. Cooper, M.D., Ph.D.
Chief Executive Officer

IN WITNESS WHEREOF, the parties hereto have caused this Registration Rights Agreement to be duly executed by their respective authorized officers as of the date first above written.

PURCHASER:

[PURCHASER]

By: _____

Name:

Title:

**SCHEDULE 1
SCHEDULE OF PURCHASER**

**Name of Purchaser and
Address/Contact
Information**

**Number of shares of
Company Common
Stock Exercisable
pursuant to the
Warrants**

ANNEX A
PLAN OF DISTRIBUTION

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock previously issued and the shares of common stock issuable upon exercise of the warrants 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. The selling stockholders may sell their shares of our common stock pursuant to this prospectus 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;
- 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 pursuant to 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 or warrants 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.

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, 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 such time as the shares offered by the selling stockholders have been effectively registered under the Securities Act and disposed of in accordance with such registration statement, the shares offered by the selling stockholders have been disposed of pursuant to Rule 144 under the Securities Act or the shares offered by the selling stockholders may be resold pursuant to Rule 144 without restriction or limitation (including without the requirement to be in compliance with Rule 144(c)(1)) or another similar exemption under the Securities Act.

**ANNEX B
SELLING STOCKHOLDER NOTICE AND QUESTIONNAIRE**

ZIOPHARM Oncology, Inc.

Selling Stockholder Notice and Questionnaire

The undersigned beneficial owner of common stock, \$0.001 par value per share (the "Common Stock"), of ZIOPHARM Oncology, Inc. (the "Company"), (the "Registrable Securities") understands that the Company has filed or intends to file with the Securities and Exchange Commission (the "Commission") a registration statement or prospectus supplement (the "Registration Statement") for the registration and resale under Rule 415 of the Securities Act of 1933, as amended (the "Securities Act"), of the Registrable Securities, in accordance with the terms of the Registration Rights Agreement, dated as of September 12, 2019 (the "Registration Rights Agreement"), between the Company and the Purchaser named therein. The purpose of this Questionnaire is to facilitate the filing of the Registration Statement under the Act that will permit you to resell the Registrable Securities in the future. The information supplied by you will be used in preparing the Registration Statement. All capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the Registration Rights Agreement.

Certain legal consequences arise from being named as a selling stockholder in the Registration Statement and the related Prospectus. Accordingly, holders and beneficial owners of Registrable Securities are advised to consult their own securities law counsel regarding the consequences of being named or not being named as a selling stockholder in the Registration Statement and the related Prospectus.

NOTICE

The undersigned beneficial owner (the "Selling Stockholder") of Registrable Securities hereby elects to include the Registrable Securities owned by it and listed below in Item 3 (unless otherwise specified under such Item 3) in the Registration Statement.

QUESTIONNAIRE

1. Name.

(a) Full Legal Name of Selling Stockholder

(b) Full Legal Name of Registered Holder (if not the same as (a) above) through which Registrable Securities Listed in Item 3 below are held:

(c) Full Legal Name of Natural Control Person (which means a natural person who directly or indirectly alone or with others has power to vote or dispose of the securities covered by the questionnaire):

2. Address for Notices to Selling Stockholder:

Telephone: _____

Fax: _____

Contact Person: _____

E-mail address of Contact Person: _____

3. Beneficial Ownership of Registrable Securities:

(a) Type and Number of Registrable Securities beneficially owned:

4. Broker-Dealer Status:

(a) Are you a broker-dealer?

Yes No

Note: If yes, the Commission's staff has indicated that you should be identified as an underwriter in the Registration Statement.

(b) Are you an affiliate of a broker-dealer?

Yes No

Note: If yes, provide a narrative explanation below:

(c) If you are an affiliate of a broker-dealer, do you certify that you bought the Registrable Securities in the ordinary course of business, and at the time of the purchase of the Registrable Securities to be resold, you had no agreements or understandings, directly or indirectly, with any person to distribute the Registrable Securities?

Yes No

Note: If no, the Commission's staff has indicated that you should be identified as an underwriter in the Registration Statement.

5. Beneficial Ownership of Other Securities of the Company Owned by the Selling Stockholder.

Except as set forth below in this Item 5, the undersigned is not the beneficial or registered owner of any securities of the Company other than the Registrable Securities listed above in Item 3.

- (a) As of _____, 201_____, the Selling Stockholder owned outright (including shares registered in Selling Stockholder's name individually or jointly with others, shares held in the name of a bank, broker, nominee, depository or in "street name" for its account), _____ shares of the Company's capital stock (excluding the Registrable Securities). If "zero," please so state.
- (b) In addition to the number of shares Selling Stockholder owned outright as indicated in Item 5(a) above, as of _____, 201_____, the Selling Stockholder had or shared voting power or investment power, directly or indirectly, through a contract, arrangement, understanding, relationship or otherwise, with respect to _____ shares of the Company's capital stock (excluding the Registrable Securities). If "zero," please so state.

If the answer to Item 5(b) is not "zero," please complete the following tables:

Sole Voting Power:

Number of Shares	Nature of Relationship Resulting in Sole Voting Power
------------------	---

Shared Voting Power:

Number of Shares	With Whom Shared	Nature of Relationship
------------------	------------------	------------------------

Sole Investment power:

Number of Shares	Nature of Relationship Resulting in Sole Investment Power
------------------	---

Shared Investment power:

Number of Shares	With Whom Shared	Nature of Relationship
(c)	As of _____, 201_____, the Selling Stockholder had the right to acquire the following shares of the Company's common stock pursuant to the exercise of outstanding stock options, warrants or other rights (excluding the Registrable Securities). Please describe the number, type and terms of the securities, the method of ownership, and whether the undersigned holds sole or shared voting and investment power. If "none", please so state.	

6. Relationships with the Company:

Except as set forth below, neither the undersigned nor any of its affiliates, officers, directors or principal equity holders (owners of 5% or more of the equity securities of the undersigned) has held any position or office or has had any other material relationship with the Company (or its predecessors or affiliates) during the past three years.

State any exceptions here:

7. Plan of Distribution:

The undersigned has reviewed the form of Plan of Distribution attached as Annex A to the Registration Rights Agreement, and hereby confirms that, except as set forth below, the information contained therein regarding the undersigned and its plan of distribution is correct and complete.

State any exceptions here:

The undersigned agrees to promptly notify the Company of any inaccuracies or changes in the information provided herein that may occur subsequent to the date hereof and prior to the effective date of any applicable Registration Statement filed pursuant to the Registration Rights Agreement.

By signing below, the undersigned consents to the disclosure of the information contained herein in its answers to Items 1 through 7 and the inclusion of such information in each Registration Statement filed pursuant to the Registration Rights Agreement and each related Prospectus. The undersigned understands that such information will be relied upon by the Company in connection with the preparation or amendment of any such Registration Statement and the related Prospectus.

By signing below, the undersigned acknowledges that it understands its obligation to comply, and agrees that it will comply, with the provisions of the Exchange Act and the rules and regulations thereunder, particularly Regulation M. The undersigned also acknowledges that it understands that the answers to this Questionnaire are furnished for use in connection with Registration Statements filed pursuant to the Registration Rights Agreement and any amendments or supplements thereto filed with the Commission pursuant to the Securities Act.

The undersigned hereby acknowledges and is advised of the following Interpretation A.65 of the July 1997 SEC Manual of Publicly Available Telephone Interpretations regarding short selling:

“An Company filed a Form S-3 registration statement for a secondary offering of common stock which is not yet effective. One of the selling shareholders wanted to do a short sale of common stock “against the box” and cover the short sale with registered shares after the effective date. The Company was advised that the short sale could not be made before the registration statement become effective, because the shares underlying the short sale are deemed to be sold at the time such sale is made. There would, therefore, be a violation of Section 5 if the shares were effectively sold prior to the effective date.”

By returning this Questionnaire, the undersigned will be deemed to be aware of the foregoing interpretation.

I confirm that, to the best of my knowledge and belief, the foregoing statements (including without limitation the answers to this Questionnaire) are correct.

IN WITNESS WHEREOF the undersigned, by authority duly given, has caused this Questionnaire to be executed and delivered either in person or by its duly authorized agent.

Dated: _____

Beneficial Owner: _____

By: _____

Name:

Title: