UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934

Date of report (Date of earliest event reported): January 9, 2015

ZIOPHARM Oncology, Inc.
(Exact Name of Registrant as Specified in Charter)

Delaware	**001-33038**	**84-1475672**
(State or Other Jurisdiction of Incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

One First Avenue, Parris Building 34, Navy Yard Plaza
Boston, Massachusetts **02129**
(Address of Principal Executive Offices) **(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)).

Item 1.01 Entry into a Material Definitive Agreement

License Agreement and Letter Agreement

On January 13, 2015, ZIOPHARM Oncology, Inc., or the Company, and Intrexon Corporation, or Intrexon, entered into a license agreement, or the License, with The University of Texas System Board of Regents on behalf of The University of Texas M.D. Anderson Cancer Center, or MD Anderson. Pursuant to the License, the Company and Intrexon hold an exclusive, worldwide license to certain technologies owned and licensed by MD Anderson including technologies relating to novel chimeric antigen receptor (CAR) T-cell therapies arising from the laboratory of Laurence Cooper, M.D., Ph.D., professor of pediatrics at MD Anderson, as well as either co-exclusive or non-exclusive licenses under certain related technologies.

Pursuant to the terms of the License, MD Anderson shall receive, within sixty days of the date of the License, consideration of $50 million in shares of the Company's common stock (or 10,124,561 shares), and $50 million in shares of Intrexon's common stock (or 1,821,867 shares) in each case based on a trailing 20 day volume weighted average of the closing price of the Company's and Intrexon's common stock ending on the date prior to the announcement of the entry into the License, collectively referred to as the License Shares, pursuant to the terms of the License Shares Securities Issuance Agreement described below. The Company and Intrexon also agreed to reimburse MD Anderson for out of pocket expenses for maintaining patents covering the licensed technologies.

In addition, pursuant to the License, MD Anderson has agreed to transfer to the Company certain existing research programs described in the License and to grant to Intrexon and the Company certain additional technology rights related thereto. In connection with such transfer, the terms of the License also require the Company and Intrexon to enter into a research and development agreement with MD Anderson pursuant to which the Company will provide funding for certain research and development activities of MD Anderson for a period of three years, in an amount between $15 and $20 million per year. The first quarterly payment of $3.75 million due under this arrangement is required to be made by the Company within 60 days of the date of the License.

The term of the License expires on the last to occur of (a) the expiration of all patents licensed thereunder, or (b) the twentieth anniversary of the date of the License; provided, however, that following the expiration of the term, the Company and Intrexon shall then have a fully-paid up, royalty free, perpetual, irrevocable and sublicensable license to use the licensed intellectual property thereunder. After ten years from the date of the License and subject to a 90 day cure period, MD Anderson will have the right to convert the License into a non-exclusive license if the Company and Intrexon are not using commercially reasonable efforts to commercialize the licensed intellectual property on a case-by-case basis. After five years from the date of the license and subject to a 180 day cure period, MD Anderson will have the right to terminate the license with respect to specific technology(ies) funded by the government or subject to a third party contract if the Company and Intrexon are not meeting the diligence requirements in such funding agreement or contract, as applicable. Subject to a 30 day cure period, MD Anderson has the right to terminate the License if the Company and Intrexon fail to timely deliver the shares due in consideration for the License. MD Anderson may also terminate the agreement with written notice upon material breach by the Company and Intrexon, if such breach has not been cured within 60 days of receiving such notice. In addition, the License will terminate upon the occurrence of certain insolvency events for both the Company and Intrexon and may be terminated by the mutual written agreement of the Company, Intrexon and MD Anderson.

On January 9, 2015, in order to induce MD Anderson to enter into the License on an accelerated schedule, the Company and Intrexon entered into a letter agreement, or the Letter Agreement, pursuant to which MD Anderson shall receive consideration of $7.5 million in shares of the Company's common stock (or 1,597,602 shares), and $7.5 million in shares of Intrexon's common stock (or 278,218 shares) in each case based on a trailing 20 day volume weighted average of the closing price of the Company's and Intrexon's common stock ending on the date prior to the Letter Agreement, collectively referred to as the Incentive Shares, in the event that the License was entered into on or prior to 8:00 am pacific time, on January 14, 2015, referred to as the Accelerated Closing Deadline. The Incentive Shares will be issued to MD Anderson within sixty days of the date of the License pursuant to the terms of the Incentive Shares Securities Issuance Agreement described below.

Securities Issuance Agreements and Registration Rights Agreement

In connection with the entry into the License, on January 13, 2015, the Company, and MD Anderson entered into a Securities Issuance Agreement, or the License Shares Securities Issuance Agreement, pursuant to which it has agreed to issue and sell the License Shares to MD Anderson in consideration for the License. The closing of the issuance and sale of the License Shares under the License Shares Securities Issuance Agreement will occur within sixty days of the date of the License, subject to customary closing conditions.

In connection with the entry into the Letter Agreement, on January 13, 2015, the Company and MD Anderson entered into a Securities Issuance Agreement, or the Incentive Shares Securities Issuance Agreement, pursuant to which it has agreed to issue and sell the Incentive Shares to MD Anderson in consideration for the execution and delivery of the License on or prior to the Accelerated Closing Deadline in connection with the Letter Agreement. The closing of the issuance and sale of the Incentive Shares under the Incentive Shares Securities Issuance Agreement will occur within sixty days of the date of the License, subject to customary closing conditions.

Also in connection with the License and the issuance of the License Shares and the Incentive Shares, on January 13, 2015, the Company and MD Anderson entered into a Registration Rights Agreement, or the Registration Rights Agreement, pursuant to which the Company agreed to file a “resale” registration statement, or the Registration Statement, registering the resale of the License Shares, the Incentive Shares and any other shares of the Company’s common stock held by MD Anderson on the date that the Registration Statement is filed, within 15 days of the closing under the License Shares Securities Issuance Agreement. Under the Registration Rights Agreement, the Company will be obligated to use its reasonable best efforts to cause the Registration Statement to be declared effective as promptly as practicable after filing and in no event later than 120 days of the closing under the License Shares Securities Issuance Agreement and to maintain the effectiveness of the Registration Statement until all securities therein are sold or are otherwise can be sold pursuant to Rule 144, without any restrictions.

The foregoing description of the License is only a summary and is qualified in its entirety by reference to the License. The Company intends to file a copy of the License as an exhibit to its Annual Report on Form 10-K for its fiscal year ending December 31, 2014 or as an exhibit to an amendment to this Current Report on Form 8-K, portions of which will be subject to a FOIA Confidential Treatment Request to the Securities and Exchange Commission pursuant to Rule 24b-2 under the Securities Exchange Act of 1934, as amended, for certain portions of the License. The omitted material will be included in the request for confidential treatment. The foregoing description of each of the Letter Agreement, the License Shares Securities Issuance Agreement, the Incentive Shares Securities Issuance Agreement and the Registration Rights Agreement is only a summary and is qualified in its entirety by reference to such agreements, which are filed as Exhibits 10.1, 10.2, 10.3 and 10.4 to this Current Report on Form 8-K, respectively, and are incorporated herein by reference. The benefits of the representations and warranties set forth in the License, the License Shares Securities Issuance Agreement, the Incentive Shares Securities Issuance Agreement and the Registration Rights Agreement are intended to be relied upon by the parties to such agreements only and, except as otherwise expressly provided therein, do not constitute continuing representations and warranties to any other party or for any other purpose.

On January 13, 2015 the Company, together with Intrexon, issued a press release announcing the transactions described above. A copy of the press release is filed as Exhibit 99.1 to this Current Report on Form 8-K and incorporated herein by reference.

Item 3.02 Unregistered Sales of Equity Securities

The disclosure in Item 1.01 is incorporated herein by reference thereto. The offer and sale of the License Shares and the Incentive Shares will not be registered under the Securities Act of 1933, as amended, or the Securities Act, at the time of sale, and therefore may not be offered or sold in the United States absent registration or an applicable exemption from registration requirements. For these issuances, the Company is relying on the exemption from federal registration under Section 4(a)(2) of the Securities Act and/or Rule 506 promulgated thereunder, based on the Company's belief that the offer and sale of the Shares has not and will not involve a public offering as MD Anderson is an "accredited investor" as defined under Section 501 promulgated under the Securities Act and no general solicitation has been involved in the offer and sale of the License Shares or the Incentive Shares.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

Exhibit No.	Description
10.1	Letter Agreement by and between ZIOPHARM Oncology, Inc., Intrexon Corporation and The University of Texas System Board of Regents on behalf of The University of Texas M.D. Anderson Cancer Center, dated as of January 9, 2015
10.2	Securities Issuance Agreement by and among ZIOPHARM Oncology, Inc., The University of Texas System Board of Regents on behalf of The University of Texas M.D. Anderson Cancer Center dated as of January 13, 2015 (relating to the License Shares)
10.3	Securities Issuance Agreement by and among ZIOPHARM Oncology, Inc., The University of Texas System Board of Regents on behalf of The University of Texas M.D. Anderson Cancer Center dated as of January 13, 2015 (relating to the Incentive Shares)
10.4	Registration Rights Agreement by and among ZIOPHARM Oncology, Inc., The University of Texas System Board of Regents on behalf of The University of Texas M.D. Anderson Cancer Center dated as of January 13, 2015
99.1	Press Release of the Company dated January 13, 2015

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/ Kevin G. Lafond

Name: Kevin G. Lafond

Title: Vice President, Chief Accounting Officer and Treasurer

Date: January 13, 2015

INDEX OF EXHIBITS

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Exhibit 10.1

HIGHLY SENSITIVE AND CONFIDENTIAL

January 9, 2015

CONFIDENTIAL

UT System Board of Regents
The University of Texas M.D. Anderson Cancer Center
1515 Holcombe Blvd.
Houston, TX 77030
Attn: Dr. Ferran Prat, Vice President, Strategic Industry Ventures
Re: **Accelerated Closing Incentive**

Dear Dr. Prat:

As you know, the parties have entered into a Letter of Intent dated December 19, 2014 (the "***Letter of Intent***"), that sets forth the general terms for a transaction (the "***Proposed Transaction***") involving, among other things, the license by the UT System Board of Regents on behalf of The University of Texas M.D. Anderson Cancer Center ("***MD Anderson***"), to ZIOPHARM Oncology, Inc., a Delaware corporation ("***Ziopharm***"), and Intrexon Corporation, a Virginia corporation ("***Intrexon***" and together with Ziopharm, the "***Licensee Group***") of certain assets and related intellectual property as described in the Letter of Intent. While the Letter of Intent contemplates a 120 day period in which to conclude the Proposed Transaction, the Licensee Group believes that an immediate accelerated closing and execution of the license agreement would be of significant benefit to the parties. Specifically, the J.P. Morgan Healthcare Conference is being held next week in San Francisco, and on Wednesday during the Conference, the Licensee Group would like to issue a public announcement about the execution of the license agreement. Consequently, the Licensee Group would like to induce and incentivize MD Anderson to undertake any and all extraordinary efforts to expedite and/or shorten its contracting, review and approval processes and to conclude and execute the license agreement on or before 8:00 am PST, on January 14, 2015 (the "***Accelerated Closing Deadline***").

Accordingly, if the parties execute the license agreement prior to the Accelerated Closing Deadline, the Licensee Group will provide MD Anderson with the following incentive consideration (the "***Accelerated Closing Incentive Consideration***"), which both parties agree and understand is fair and adequate consideration for the extraordinary efforts expended by MD Anderson:

a. 1,597,590 of shares of Ziopharm's common stock, $0.001 par value per share (the "***Ziopharm Stock***"), which is currently equal to seven and half million dollars ($7,500,000), based on the volume weighted average closing price of the Ziopharm Stock as reported by the Nasdaq Stock Market, LLC over the 20 trading days immediately preceding the date of this Letter Agreement.

b. 278,218 of shares of Intrexon's common stock, no par value per share (the "***Intrexon Stock***"), which is currently equal to seven and a half million dollars ($7,500,000), based on the volume weighted average closing price of the Intrexon Stock as reported by the New York Stock Exchange over the 20 trading days immediately preceding the date of this Letter Agreement.

The shares of Ziopharm Stock and Intrexon Stock payable pursuant to this Letter Agreement (collectively, the "***Incentive Shares***") are not consideration for the license of the technology under the license agreement and are separate from the equity consideration under the license agreement (the "***License Consideration Shares***"); provided however, that for purposes of determining whether the Nasdaq Threshold (as defined in the Letter of Intent) has been met, the shares of Ziopharm Stock issued pursuant to this Letter Agreement shall be aggregated with the shares of Ziopharm's common stock issued pursuant to Section 2(a) of the Letter of Intent and the Securities Issuance Agreement executed by, among others, Ziopharm and MD Anderson to give effect thereto (the "***Definitive Issuance Agreement***"), and if the aggregate number of shares of Ziopharm's common stock issued pursuant to this Letter Agreement and the Definitive Issuance Agreement would exceed the Nasdaq Threshold, then the total number of shares issued pursuant to this Letter Agreement and the Definitive Issuance Agreement shall be equal to the Nasdaq Threshold, and Ziopharm shall pay in cash that portion of the purchase price allocable to the License Consideration Shares that exceed the Nasdaq Threshold. The Incentive Shares shall be issued to "The Board of Regents of the University of Texas System" or its designee promptly following the execution of the license agreement and in any event, not later than sixty (60) calendar days after the execution of the license agreement. The Incentive Shares shall be issued to MD Anderson in private placement transactions, and shall therefore be "restricted securities" within the meaning of Rule 144 promulgated under the Securities Act of 1933, as amended (the "***Securities Act***"). MD Anderson shall agree to enter into a "lock-up" agreement with the same terms, conditions and exceptions as shall be set forth in the license agreement or other definitive agreements entered into between the applicable parties pursuant to which it shall not sell or transfer any Incentive Shares for a period of one hundred twenty (120) days following the execution of the license agreement. Each member of the Licensee Group shall register the Incentive Shares in accordance with the same registration obligations applicable to the License Consideration Shares issued by such member of the Licensee Group.

This Letter Agreement is binding upon each of the Licensee Group and their respective successors and assigns and is fully enforceable against the Licensee Group. While not signatories to this Letter Agreement, MD Anderson and The Board of Regents of the University of Texas System are express and intended beneficiaries of this Letter Agreement and will have the right to fully enforce the terms of this Letter Agreement. Accordingly, MD Anderson may act in reliance upon this Letter Agreement and MD Anderson's actions and performance in furtherance of executing the license agreement by the Accelerated Closing Deadline will constitute MD

Anderson's acceptance of and agreement with the terms of this Letter Agreement. Notwithstanding the foregoing, no member of the Licensee Group shall have any obligation under this Letter Agreement, whether to MD Anderson, another member of the Licensee Group, or to any other party, in the event the license agreement is not executed by the Accelerated Closing Deadline. The decision to execute the license agreement shall be subject to the discretion of each signatory thereto.

This Letter Agreement constitutes the entire and only agreement regarding the Accelerated Closing Incentive Consideration. No amendment, waiver, or termination of this Letter Agreement will be effective unless it is evidenced by a written agreement that is signed by both MD Anderson and each member of the Licensee Group; provided, however, that notwithstanding the foregoing, in the event that the license agreement contemplated by the Letter of Intent is not executed and delivered on or prior to the Accelerated Closing Deadline, then this Letter Agreement shall be void ab initio and of no further effect.

This Letter Agreement will be construed and enforced in accordance with the laws of the United States of America and of the State of Texas, and venue for any lawsuit related to this Letter Agreement will be in Harris County, Texas.

This Letter Agreement may be signed in counterparts, all of which shall constitute the same agreement.

Very truly yours,

ZIOPHARM Oncology, Inc.

By: /s/ Jonathan Lewis, M.D., Ph.D.
Jonathan Lewis, M.D., Ph.D.
Chief Executive Officer

Intrexon Corporation

By: /s/ Randal J. Kirk
Randal J. Kirk
Chairman and Chief Executive Officer

SECURITIES ISSUANCE AGREEMENT

THIS SECURITIES ISSUANCE AGREEMENT (the "**Agreement**"), dated as of January 13, 2015, by and among ZIOPHARM Oncology, Inc., a Delaware corporation (the "**Issuer**"), the University of Texas System Board of Regents on behalf of The University of Texas M.D. Anderson Cancer Center, an agency of the State of Texas ("**MD Anderson**"). Capitalized terms used herein but not otherwise defined shall have the meanings given to them in Section 1.4.

RECITALS

A. Concurrently with the execution of this Agreement, the Issuer and Intrexon Corporation, a Virginia corporation ("**Intrexon**" and together with the Issuer, the "**Licensees**"), are entering into a License Agreement with the Board of Regents (the "**Board**") of the University of Texas System, on behalf of MD Anderson (the "**License Agreement**"), pursuant to which the Board, on behalf of MD Anderson, is licensing the rights to certain technology (the "**License**") to the Licensees.

B. In partial consideration of the License under the License Agreement, each Licensee has agreed to issue and sell to MD Anderson certain shares of such Licensee's common stock.

C. The Issuer and MD Anderson are executing and delivering this Agreement in reliance upon the exemption from registration afforded by Section 4(a)(2) of the Securities Act of 1933, as amended (the "**Securities Act**"), and Rule 506(b) of Regulation D ("**Regulation D**") as promulgated by the United States Securities and Exchange Commission (the "**Commission**") under the Securities Act.

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 Issuer and MD Anderson agree as follows:

ARTICLE I
PURCHASE AND SALE

1.1 Authorization of Sale of Shares.

(a) Issuer Shares. Subject to the terms and conditions of this Agreement, the Issuer shall issue to MD Anderson Ten Million, One Hundred Twenty-four Thousand, Five Hundred Sixty-One (10,124,561) shares of Issuer Common Stock (the "**Issuer Shares**").

(b) Capital Adjustments. If after the date hereof, but prior to the date the Issuer Shares have been issued to MD Anderson in accordance with Section 1.3(a): (i) the outstanding shares of Issuer Common Stock shall be subdivided or split into a greater number of shares or a dividend in Issuer Common Stock shall be paid in respect of Issuer Common Stock or (ii) the outstanding shares of Issuer Common Stock are combined, then all share quantities in this

Agreement not yet issued shall be appropriately adjusted to reflect such stock split, stock dividend or conjunction. If after the date hereof, but prior to the date the Issuer Shares have been issued to MD Anderson in accordance with Section 1.3(a): (i) the Issuer shall pay a dividend in securities of the Issuer (other than in Issuer Common Stock) or of other property (including cash) on Issuer Common Stock, or (ii) there shall occur any merger, consolidation, capital reorganization or reclassification in which Issuer Common Stock is converted or exchanged for securities, cash or other property, the class or series of stock constituting Issuer Common Stock for purposes of this Agreement, shall be appropriately adjusted to reflect such other dividend, merger, consolidation, capital reorganization or reclassification. After any event referenced in clauses (i) through (ii) of the immediately preceding sentence is consummated, if applicable, all references herein to Issuer Common Stock shall be deemed to refer to the capital stock or property (including cash) into or for which the Issuer Common Stock was converted or exchanged, with the necessary changes in detail.

1.2 Closing. Subject to the terms and conditions set forth in this Agreement, at the Closing, (a) the Issuer shall issue and sell to MD Anderson, and MD Anderson shall purchase from the Issuer, the Issuer Shares. The closing of the issuance of the Issuer Shares to MD Anderson by the Issuer (the "**Closing**") will occur, subject to the conditions set forth in Article V, within the time period specified in the License Agreement or on such other date as the Issuer and MD Anderson 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 Issuer and MD Anderson may agree upon.

1.3 Closing Deliverables.

(a) Promptly following the Closing, the Issuer shall deliver to MD Anderson certificates representing the Issuer Shares purchased at the Closing, registered in the names of MD Anderson.

(b) At the Closing, the Issuer and MD Anderson shall execute and deliver the Registration Rights Agreement.

1.4 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.

"**Issuer Common Stock**" means the Issuer's common stock, par value $0.001 per share.

"**Issuer Covered Person**" means, with respect to the Issuer as an "issuer" for purposes of Rule 506 promulgated under the Securities Act, any Person listed in the first paragraph of Rule 506(d)(1).

"**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 of even date herewith, among the Issuer and MD Anderson, in the form of Exhibit A attached to this Agreement.

"**Trading Day**" means a NASDAQ trading day.

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

ARTICLE II
REPRESENTATIONS AND WARRANTIES OF THE ISSUER

Subject to and except as set forth in the SEC Documents (as defined below) or on the Disclosure Schedule which is arranged in sections corresponding to the sub-section numbered provisions contained below in this Section, the Issuer hereby represents and warrants to MD Anderson as of the date hereof as follows:

2.1 Organization, Good Standing and Power. The Issuer 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 Issuer with the Commission pursuant to the reporting requirements of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), since the end of the Issuer's 2013 fiscal year through the date hereof, including, without limitation, the Issuer's most recent quarterly report on Form 10-Q. The Issuer does not have any subsidiaries. The Issuer 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 Issuer that is material and adverse to the Issuer, taken as a whole, and any condition, circumstance or situation that would prohibit the Issuer from entering into and performing any of its obligations hereunder.

2.2 Authorization; Enforcement. The Issuer has the requisite corporate power and authority to enter into and perform the Transaction Documents and to issue and sell the Issuer Shares to be issued by the Issuer in accordance with the terms hereof. The execution, delivery and performance of this Agreement by the Issuer 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 Issuer, its board of directors or stockholders is required. When executed and delivered by the Issuer, this Agreement shall constitute a valid and binding obligation of the Issuer enforceable against the Issuer 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 Issuer's board of directors, at a meeting duly called and held, adopted resolutions approving the transactions contemplated hereby, including the issuance of the Issuer Shares to be issued by the Issuer pursuant to this Agreement.

2.3 Issuance of Issuer Shares. The Issuer Shares to be issued and sold by the Issuer hereunder have been duly authorized by all necessary corporate action and, when paid for and issued in accordance with the terms hereof, will be validly issued, fully paid and nonassessable. In addition, the Issuer Shares 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 Issuer (collectively, "**Encumbrances**") and rights of refusal of any kind imposed by the Issuer (other than restrictions on transfer under applicable securities laws) and the holder of the Issuer Shares shall be entitled to all rights accorded to a holder of Issuer Common Stock.

2.4 No Conflicts; Governmental Approvals. The execution, delivery and performance of the Transaction Documents by the Issuer and the consummation by the Issuer of the transactions contemplated hereby do not and will not (i) violate any provision of the Issuer'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 Issuer is a party or by which the Issuer'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 Issuer or by which any property or asset of the Issuer is bound or affected. The Issuer 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 Issuer Shares to be issued by the Issuer in accordance with the terms hereof (other than any filings, consents and approvals which may be required to be made by the Issuer under applicable state and federal securities laws, rules or regulations prior to or subsequent to the Closing).

2.5 Capitalization. The issued and outstanding shares of capital stock of the Issuer 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 Issuer has an authorized, issued and outstanding capitalization as set forth in the Issuer's most recent annual report on Form 10-K or quarterly report on Form 10-Q (other than the grant of additional awards under the Issuer's equity incentive plans or changes in the number of outstanding shares of Issuer Common Stock due to the issuance of shares upon the exercise or conversion of securities exercisable for, or convertible or exchangeable into, shares of Issuer Common Stock outstanding). Except as disclosed in the Issuer's most recent annual report on Form 10-K or quarterly report on Form 10-Q, the Issuer 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 Issuer's equity incentive plans).

2.6 SEC Documents, Financial Statements. The Issuer represents and warrants that as of the date hereof, the Issuer Common Stock is registered pursuant to Section 12(b) of the Exchange Act. Since January 1, 2013, the Issuer 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 Issuer 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 Issuer 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 Issuer 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 Issuer 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 Issuer 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 Issuer represents and warrants that McGladrey LLP, whose report on the financial statements of the Issuer is filed with the Commission in the Issuer's Annual Report on Form 10-K for the year ended December 31, 2013, 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 Issuer's knowledge, McGladrey LLP has not engaged in any non-audit services prohibited by subsection (g) of Section 10A of the Exchange Act on behalf of the Issuer.

2.8 Internal Controls. The Issuer 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 Issuer 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 Issuer that could significantly affect the Issuer's internal controls, including any corrective actions with regard to significant deficiencies and material weaknesses. The Issuer is in compliance in all material respects with all provisions currently in effect and applicable to the Issuer 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, 2013, the Issuer 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 Issuer's business or (iii) declared, made or paid any dividend or distribution of any kind on its capital stock.

2.11 No Undisclosed Events or Circumstances. Except as disclosed in the SEC Documents, since December 31, 2013, except for the consummation of the transactions contemplated herein, to the Issuer's knowledge, no event or circumstance has occurred or exists with respect to the Issuer or its businesses, properties, prospects, operations or financial condition, which, under applicable law, rule or regulation, requires public disclosure or announcement by the Issuer but which has not been so publicly announced or disclosed.

2.12 Litigation. Except as disclosed in the SEC Documents, no action, suit, proceeding or investigation is currently pending or, to the knowledge of the Issuer, has been threatened in writing against the Issuer that: (i) concerns or questions the validity of this Agreement; (ii) concerns or questions the right or authority of the Issuer to enter into the Transaction Documents and to perform its obligations thereunder; or (iii) is reasonably likely to have a Material Adverse Effect. The Issuer 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 Issuer currently pending or that the Issuer intends to initiate that would have a Material Adverse Effect.

2.13 Compliance. The Issuer (i) is not in violation of any provision of the Issuer'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 Issuer under), nor has the Issuer 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.

2.14 Listing and Maintenance Requirements. The Issuer is in compliance with the requirements of the NASDAQ for continued listing of the Issuer Common Stock thereon and the Issuer has not received any notification that, and has no knowledge that the NASDAQ is contemplating terminating such listing. The issuance and sale of the Issuer Shares hereunder does not contravene the rules and regulations of the NASDAQ in any material respect.

2.15 Investment Company Act. The Issuer is not and, after giving effect to the offering and sale of the Issuer Shares, 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.

2.16 Private Placement. Neither the Issuer nor its Affiliates, nor 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 Issuer Shares 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 Issuer of the Issuer Shares under the Securities Act or (iii) has issued any shares of Issuer 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 Issuer Common Stock which would be integrated with the sale of the Issuer Shares to MD Anderson 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 Issuer are listed or designated, nor will the Issuer or any of its Affiliates take any action or steps that would require registration of any of the Issuer Shares under the Securities Act or cause the offering of the Issuer Shares to be integrated with other offerings. Assuming the accuracy of the representations and warranties of MD Anderson, the offer and sale of the Issuer Shares to be issued by the Issuer to MD Anderson pursuant to this Agreement will be exempt from the registration requirements of the Securities Act.

2.17 No Manipulation of Stock. The Issuer 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 Issuer Common Stock.

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

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

2.20 Reliance. The Issuer understands that the foregoing representations and warranties shall be deemed material and to have been relied upon by MD Anderson.

ARTICLE III
REPRESENTATIONS, WARRANTIES AND COVENANTS OF MD ANDERSON

MD Anderson hereby represents, warrants and covenants to the Issuer as follows:

3.1 Authorization and Power. MD Anderson has the requisite power and authority to enter into and perform the Transaction Documents and to purchase the Issuer Shares being sold to it hereunder. The execution, delivery and performance of this Agreement by MD Anderson 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 MD Anderson or its board of regents, board of directors, stockholders or other governing body is required. When executed and delivered by MD Anderson, this Agreement shall constitute a valid and binding obligation of MD Anderson, enforceable against MD Anderson 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 MD Anderson and the consummation by MD Anderson of the transactions contemplated hereby do not and will not (i) violate any provision of MD Anderson'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 MD Anderson is a party or by which MD Anderson'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 MD Anderson or by which any property or asset of MD Anderson are bound or affected, except, in all cases, other than violations (with respect to federal and state securities laws) above, for such conflicts, defaults, terminations, amendments, acceleration, cancellations and violations as would not, individually or in the aggregate, materially and adversely affect MD Anderson's ability to perform its obligations under this Agreement.

3.3 Purchaser Sophistication; Accredited Investor. MD Anderson (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 Issuer Shares, including investments in securities issued by the Issuer 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 Issuer Shares; (b) in connection with its decision to purchase the Issuer Shares, relied only upon the SEC Documents, other publicly available information, and the representations and warranties of the Issuer contained herein; (c) is an "accredited investor" pursuant to Rule 501 of Regulation D under the Securities Act; (d) is acquiring the Issuer Shares for its own account for investment only and with no present intention of distributing any of the Issuer Shares or any arrangement or understanding with any other persons regarding the distribution of the Issuer Shares; (e) has not been organized, reorganized or recapitalized specifically for the purpose of investing in the

Issuer Shares; (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 Issuer Shares except in compliance with the Securities Act and applicable state securities laws; (g) understands that the Issuer Shares 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 Issuer is relying upon the truth and accuracy of, and MD Anderson's compliance with, the representations, warranties, agreements, acknowledgments and understandings of MD Anderson set forth herein in order to determine the availability of such exemptions and the eligibility of MD Anderson to acquire the Issuer Shares; (h) understands that its investment in the Issuer Shares involves a significant degree of risk, including a risk of total loss of MD Anderson's investment (provided that such acknowledgment in no way diminishes the representations, warranties and covenants made by the Issuer 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 Issuer Shares.

3.4 Principal Office. MD Anderson maintains its principal executive office in Houston, Texas.

3.5 Restricted Shares. MD Anderson acknowledges that the Issuer Shares are restricted securities and must be held indefinitely unless subsequently registered under the Securities Act or (if the Issuer is not selling the Issuer Shares pursuant to Rule 144 promulgated under the Securities Act) the Issuer receives an opinion of counsel reasonably satisfactory to the Issuer that such registration is not required. MD Anderson 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 Issuer, 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. MD Anderson further acknowledges and understands that the Issuer may not be satisfying the current public information requirement of Rule 144 at the time MD Anderson wishes to sell the Issuer Shares and, if so, MD Anderson may be precluded from selling the Issuer Shares under Rule 144 even if the required holding period has been satisfied.

3.6 Ownership of Capital Stock. As of the date hereof, excluding the Issuer Shares, MD Anderson and its Affiliates beneficially own no shares of capital stock of the Issuer.

3.7 Stock Legends. MD Anderson acknowledges that certificates evidencing the Issuer Shares 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. MD Anderson understands that nothing in this Agreement or any other materials presented by or on behalf of the Issuer to MD Anderson in connection with the purchase of the Issuer Shares constitutes legal, tax or investment advice. MD Anderson 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 Issuer Shares.

3.9 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 Issuer or MD Anderson for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of MD Anderson.

3.10 Regulation M. MD Anderson is aware that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of Issuer Common Stock and other activities with respect to Issuer Common Stock.

ARTICLE IV
COVENANTS OF THE PARTIES

4.1 Lockup.

(a) Agreement to Lock-Up. MD Anderson hereby agrees that it will not, without the prior written consent of the Issuer during the period commencing on the Closing Date and ending on the date that is one hundred twenty (120) days after the Closing Date (i) lend, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Issuer Common Stock; or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any shares of Issuer Common Stock, whether any such transaction described in clause (a) or (b) above is to be settled by delivery of Issuer Common Stock or other securities, in cash or otherwise; provided, that this Section 4.1 shall not apply to any transfer of Issuer Shares by MD Anderson to its Affiliates, provided that as a condition of such transfer, such Affiliate agrees in writing to be bound by the provisions of this Section 4.1 to the same extent as MD Anderson.

(b) Stop Transfer Instructions. In order to enforce the foregoing covenant, the Issuer may impose stop-transfer instructions with respect to the shares of Issuer Common Stock of MD Anderson (and transferees and assignees thereof) until the end of such restricted period.

4.2 Further Transfers. Without in any way limiting the provisions of Section 4.1, MD Anderson covenants that the Issuer Shares 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 Issuer Shares other than pursuant to an effective registration statement or Rule 144, the Issuer may require MD Anderson to provide to the Issuer an opinion of counsel selected by MD Anderson, the form and substance of which opinion shall be reasonably satisfactory to the Issuer, to the effect that such transfer does not require registration under the Securities Act.

4.3 Furnishing of Information. In order to enable MD Anderson to sell the Issuer Shares under Rule 144, until the date that the Issuer Shares cease to be Registrable Securities (as defined in the Registration Rights Agreement) (and for no less than 12 months from the Closing), the Issuer shall 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 Issuer after the date hereof pursuant to the Exchange Act. If, during such period, the Issuer is not required to file reports pursuant to the Exchange Act, it shall use its commercially reasonable efforts to prepare and furnish to MD Anderson and make publicly available in accordance with Rule 144(c) such information as is required for MD Anderson to sell the Issuer Shares under Rule 144.

4.4 No Integration. The Issuer shall not, and shall use its commercially reasonable efforts to ensure that no Affiliate of the Issuer 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 Issuer Shares pursuant to this Agreement in a manner that would require the registration under the Securities Act of the sale of the Issuer Shares to MD Anderson, or that will be integrated with the offer or sale of the Issuer Shares 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.

ARTICLE V
CONDITIONS TO CLOSING

5.1 Conditions Precedent to the Obligations of MD Anderson. The obligation of MD Anderson to acquire the Issuer Shares at the Closing is subject to the satisfaction or waiver by MD Anderson, at or before the Closing, of each of the following conditions:

(a) Representations and Warranties. The representations and warranties of the Issuer 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.

(b) Performance. The Issuer shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by the Issuer on or before the Closing.

(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) Listing of Additional Shares. The Issuer shall have submitted a Listing of Additional Shares Notification with the NASDAQ covering all of the Issuer Shares.

(e) License Agreement. Each Licensee shall have executed and delivered the License Agreement, and the License Agreement shall be in full force and effect.

(f) Registration Rights Agreement. The Issuer 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 Issuer. The obligation of the Issuer to issue the Issuer Shares at the Closing is subject to the satisfaction or waiver by the Issuer, at or before the Closing, of each of the following conditions:

(a) Representations and Warranties. The representations and warranties of MD Anderson contained in Article III shall be true and correct in all respects as of the Closing.

(b) Performance. MD Anderson 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 MD Anderson at or prior to the Closing.

(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) "Bad Actor" Certifications. The Issuer and each Issuer Covered Person shall have provided to the Issuer a properly completed and executed questionnaire in the form of Exhibit B hereto prior to the date hereof and on or prior to the Closing Date no "bad actor" disqualifying event described in Rule 506(d)(1)(i)-(viii) of the Securities Act (a "**Disqualification Event**") is applicable to the Issuer or, to the Issuer's knowledge, the Issuer Covered Person, except for a Disqualification Event as to which Rule 506(d)(2)(ii–iv) or (d)(3), is applicable.

(e) License Agreement. MD Anderson shall have executed and delivered the License Agreement, and the License Agreement shall be in full force and effect.

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

(g) Intrexon Documentation. MD Anderson shall deliver evidence satisfactory to the Issuer that Intrexon has executed and delivered a securities issuance agreement and registration rights agreement in form and substance reasonably satisfactory to the Issuer.

ARTICLE VI
MISCELLANEOUS

6.1 Survival of Warranties. Unless otherwise set forth in this Agreement, the representations and warranties of the Issuer and MD Anderson contained in or made pursuant to this Agreement (a) shall survive the execution and delivery of this Agreement and the Closing for a period of three (3) years after the Closing; provided, however, notwithstanding the foregoing, the representations and warranties of the Issuer set forth in Sections 2.1, 2.2 and 2.3 shall survive the execution and delivery of this Agreement and the Closing indefinitely; and (b) shall in no way be affected by any investigation or knowledge of the subject matter thereof made by or on behalf of MD Anderson or the Issuer.

6.2 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 Issuer agrees to indemnify and to hold harmless MD Anderson 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 Issuer or any of its officers, employees or representatives is responsible. MD Anderson, severally, agrees to indemnify and hold harmless the Issuer 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 MD Anderson or any of its officers, employees or representatives is responsible.

6.3 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.

6.4 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.

6.5 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 Issuer:	ZIOPHARM Oncology, Inc. 1 First Avenue Parris Building, #34 Boston, MA 02129 Attention: Chief Executive Officer Email: cbelbel@ziopharm.com Fax No.: 617.778.0420
with copies (which copies shall not constitute notice to the Issuer) to:	Cooley LLP 500 Boylston Street Boston, MA 02116 Attention: Marc Recht Email: mrecht@cooley.com Fax No.: 617.937.2400
If to MD Anderson	University of Texas System Board of Regents on behalf of The University of Texas M.D. Anderson Cancer Center Legal Services-Unit 1674 P.O. Box 301407 Houston, Texas 77230-1407 Attention: Legal Services And Legal Services-1MC11.3433 The University of Texas M. D. Anderson Cancer Center 7007 Bertner Avenue Houston, Texas 77030-3907 Attention: Legal Services

6.6 Amendments; Waivers. This Agreement and any term hereof may be amended, terminated or waived only with the written consent of the Issuer and MD Anderson. 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.

6.7 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.

6.8 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns. The Issuer may not assign this Agreement or any rights or obligations hereunder without the prior written consent of MD Anderson; *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 Issuer is a party, (ii) in connection with the acquisition of all or substantially all of the assets of the Issuer or (iii) any other similar business combination transaction involving the Issuer. MD Anderson may assign its rights under this Agreement only to a Person to whom MD Anderson assigns or transfers all Issuer Shares held by MD Anderson; *provided*, *that* (i) following such transfer or assignment, the further disposition of the Issuer Shares 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.

6.9 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.

6.10 State Agency Limitations. MD Anderson is an agency of the State of Texas and under the Constitution and laws of the State of Texas possesses certain rights and privileges, is subject to certain limitations and restrictions, and only has such authority as is granted to it under the Constitution and laws of the State of Texas. Notwithstanding any provision hereof, nothing in this Agreement is intended to be, nor will it be construed to be, a waiver of the sovereign immunity of the State of Texas or a prospective waiver or restriction of any of the rights, remedies, claims, and privileges of the State of Texas. Moreover, notwithstanding the generality or specificity of any provision hereof, the provisions of this agreement as they pertain to MD Anderson are enforceable only to the extent authorized by the Constitution and laws of the State of Texas.

6.11 Governing Law; Dispute Resolution. This Agreement will be governed by the laws of the State of Texas without regard to conflict of law principles. In the event of any dispute between the Issuer on the one hand, and MD Anderson on the other (a "**Dispute**"), the parties agree that such Dispute shall be first submitted for resolution for a period of ten (10) calendar days to designated senior officers of each of the parties who hold legal authority to resolve and settle such dispute. If any Dispute cannot be resolved and settled within such period, then to the extent authorized by the law governing the power and authority of each party, the parties agree to submit such Dispute to full and binding arbitration that will be undertaken and conducted under the auspices of the American Arbitration Association by a panel of three (3) arbitrators pursuant to that organization's Commercial Arbitration Rules then in effect, as modified by and subject to the following terms:

(a) MD Anderson, on the one hand, and the Issuer, on the other, will each choose one arbitrator and those two arbitrators will select the third arbitrator.

(b) The fees and expenses of the arbitrators shall be borne in equal shares by the parties.

(c) Each party shall bear the fees and expenses of its legal representation in the arbitration.

(d) The arbitral tribunal shall not reallocate either the fees and expenses of the arbitrators or of the parties' legal representation.

(e) The arbitration shall be held in Nashville, Tennessee, USA which shall be the seat of the arbitration.

(f) The arbitrators may not award, and no party may seek, indirect, incidental, consequential, punitive, exemplary, special, or enhanced damages, or prejudgment interest, or attorneys' fees or costs, nor may the arbitrators apply any multiplier to any award of actual damages, except as may be required by statute.

(g) The arbitrators must issue a reasoned award, setting forth the arbitrators' findings of fact and conclusions of law.

(h) The award of the arbitrators may be entered in any court of competent jurisdiction. The award rendered by the arbitrators shall be final and binding on the parties, except that the award is subject to limited judicial review and vacatur for the following reasons only: (i) the award was procured by corruption, fraud, or undue means, (ii) the award was tainted by evidence of partiality or corruption by any of the arbitrators, (iii) the award was tainted by misconduct by any of the arbitrators, (iv) the arbitrators exceeded their powers, and/or (v) the award evidences a manifest disregard of the law or is contrary to public policy. If the parties are unable to resolve a Dispute through binding arbitration, then any lawsuit pertaining to such Dispute that is brought by one party against another must be presented to and decided by a state or federal court in the home locale of the defendant party (that being Houston, Texas for MD Anderson and Boston, Massachusetts for the Issuer).

6.12 Counterparts; Execution. This Agreement may be executed in three (3) 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.

6.13 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.

[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 ISSUER:

ZIOPHARM ONCOLOGY, INC.

By: /s/ Jonathan Lewis
Jonathan Lewis, 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.

MD ANDERSON:

BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM
On behalf of The University of Texas M.D. Anderson Cancer Center

By: /s/ Ronald A. DePinho, MD
Name: Ronald A. DePinho, MD
Title: President

Exhibit A

REGISTRATION RIGHTS AGREEMENT

[See Attached]

Exhibit B

“BAD ACTOR” QUESTIONNAIRE FORMS

ZIOPHARM ONCOLOGY, INC.

CONFIDENTIAL Rule 506 Disqualification Event Questionnaire ("***Individual***")

COMPLETED ON BEHALF OF*:*

This questionnaire is being furnished to you to obtain information in connection with a potential offering (the "***Offering***") of securities under Rule 506 of the Securities Act of 1933 (the "***Securities Act***"). As used in this questionnaire, "***you***" also refers to any entity on whose behalf you are responding.

Please review Exhibit A and confirm that you can make all of the statements on behalf of yourself, as well as any entity that you control, directly or indirectly. If you cannot make one or more of the statements, please contact us to provide details. If you have doubts regarding whether you can make all of the statements, please contact us.

By completing and signing this questionnaire, you also indicate: (i) your consent for Cooley LLP and its clients to rely upon the information provided; (ii) your agreement to promptly notify Cooley LLP and the Issuer of securities of any changes in information provided that occurs after the date you sign the questionnaire and prior to the applicable offering of securities; and (iii) your confirmation that the statements on Exhibit A are true and correct, to the best of your knowledge and belief after a reasonable investigation, as of the date you sign the questionnaire, as they pertain to you and to any entity that you control.[1]

Please return this Questionnaire to Cooley LLP, Attn: Christopher Gerry, by e-mail to cgerry@cooley.com. If you have any questions with respect to these matters, please contact Chris at cgerry@cooley.com or 617-937-2323.

The statements on Exhibit A are true and correct to the best of my knowledge, information and belief after a reasonable investigation as of the date below.

_____ _____

Date (Signature)

_____

(Printed Name)

_____

Title (if applicable)

Address: _____

_____

[1] While the SEC has not provided specific guidance as to what they mean by "control" in this context, in other contexts the SEC has determined that *control* means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person, whether through the ownership of voting securities, by contract, or otherwise.

Exhibit A

1. Criminal Convictions.

You have not been convicted, within ten years before the sale of the securities (or five years, in the case of issuers, their predecessors and affiliated issuers), of any felony or misdemeanor:

- in connection with the purchase or sale of any security;
- involving the making of any false filing with the SEC; or
- arising out of the conduct of the business of an underwriter, broker, dealer, municipal securities dealer, investment advisor or paid solicitor of purchasers of securities.

2. Court Orders, Injunctions and Decrees.

Your are not subject to any order, judgment or decree of any court of competent jurisdiction, entered within five years before the sale of the securities, that, at the time of such sale, restrains or enjoins you from engaging or continuing to engage in any conduct or practice:

- in connection with the purchase or sale of any security;
- involving the making of any false filing with the SEC; or
- arising out of the conduct of the business of an underwriter, broker, dealer, municipal securities dealer, investment adviser or paid solicitor of purchasers of securities.

3. Final Orders from Specified State or Federal Regulators.

You are not subject to a final order of a state securities commission (or an agency of officer of a state performing similar functions); a state authority that supervises or examines banks, savings associations, or credit unions; a state insurance commission (or an agency or officer of a state performing similar functions); an appropriate federal banking agency; the Commodity Futures Trading Commission; or the National Credit Union Administration that:

- at the time of the sale of the securities, bars you from:
  - association with an entity regulated by such commission, authority, agency or officer;
  - engaging in the business of securities, insurance or banking; or
  - engaging in savings association or credit union activities; or
- constitutes a final order based on a violation of any law or regulation that prohibits fraudulent, manipulative, or deceptive conduct entered within ten years before the sale of the securities.

4. SEC Disciplinary Orders.

You are not subject to an order of the SEC entered pursuant to section 15(b) or 15B(c) of the Securities Exchange Act of 1934 (the “Exchange Act”) or section 203(e) or 203(f) of the Investment Advisers Act of 1940 (the “Advisers Act”) that, at the time of the sale of the securities:

- suspends or revokes your registration as a broker, dealer, municipal securities dealer or investment adviser;
- places limitations on the activities, functions or operations of, or imposes civil money penalties on, such person; or
- bars you from being associated with any entity or from participating in the offering of any penny stock.

5. SEC Cease and Desist Orders.

You are not subject to any order of the SEC, entered within five years before the sale of the securities, that, at the time of such sale, orders you to cease and desist from committing or causing a future violation of:

- any scienter-based anti-fraud provision of the federal securities laws, including, but not limited to, Section 17(a)(1) of the Securities Act, Section 10(b) of the Exchange Act and Rule 10b-5 thereunder, and Section 206(1) of the Advisers Act or any other rule or regulation thereunder; or
- Section 5 of the Securities Act.

6. **Suspension or Expulsion from SRO Membership or Association with an SRO Member.**

You have not been suspended or expelled from membership in, or suspended or barred from association with a member of, a securities self-regulatory organization (e.g., a registered national securities exchange or a registered national or affiliated securities association) for any act or omission to act constituting conduct inconsistent with just and equitable principles of trade.

7. SEC Refusal or Stop Order.

You have not filed (as a registrant or issuer), nor were you named as an underwriter in any registration statement or Regulation A offering statement filed with the SEC that, within five years before the sale of the securities, was the subject of a refusal order, stop order, or order suspending the Regulation A exemption, or is, at the time of the sale of the securities, the subject of an investigation or proceeding to determine whether a stop order or suspension order should be issued.

8. U.S. Postal Service False Representation Orders.

You are not subject to a United States Postal Service false representation order entered within five years before the sale of the securities, nor are you, at the time of the sale of the securities, subject to a temporary restraining order or preliminary injunction with respect to conduct alleged by the United States Postal Service to constitute a scheme or device for obtaining money or property through the mail by means of false representations.

9. Commission-based Solicitors.

You are not aware of any person or entity, other than any person or entity engaged directly by the issuer, entitled (directly or indirectly) to receive any remuneration in connection with this offering other than as identified by you in writing to the issuer’s outside corporate counsel within the 20 days prior to the consummation of the offering.

ZIOPHARM ONCOLOGY, INC.

CONFIDENTIAL Rule 506 Disqualification Event Questionnaire ("***Entity***")

COMPLETED ON BEHALF OF*:* BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM, On behalf of The University of Texas M.D. Anderson Cancer Center

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This questionnaire is being furnished to you to obtain information in connection with a potential offering (the "***Offering***") of securities under Rule 506 of the Securities Act of 1933 (the "***Securities Act***"). As used in this questionnaire, "***you***" refers to any entity on whose behalf you are responding.

Please review Exhibit A and confirm that you can make all of the statements on behalf of Entity. If you cannot make one or more of the statements, please contact us to provide details. If you have doubts regarding whether you can make all of the statements, please contact us.

By completing and signing this questionnaire, you also indicate that: (i) Cooley LLP and its clients may rely upon the information provided; (ii) you will notify Cooley LLP and the Issuer of securities of any changes in information provided that occurs after the date you sign the questionnaire and prior to the applicable offering of securities; and (iii) the statements on Exhibit A are true and correct, to the best of your knowledge and belief after a reasonable investigation, as of the date you sign the questionnaire.

Please return this Questionnaire to Cooley LLP, Attn: Christopher Gerry, by e-mail to cgerry@cooley.com. If you have any questions with respect to these matters, please contact Chris at cgerry@cooley.com or 617-937-2323.

The statements on Exhibit A are true and correct to the best of my knowledge, information and belief after a reasonable investigation as of the date below.

BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM
On behalf of The University of Texas M.D. Anderson Cancer Center

By: _____
Name: _____
Title: _____

Date: _____

Exhibit A

1. Criminal Convictions.

You have not been convicted, within ten years before the sale of the securities (or five years, in the case of issuers, their predecessors and Affiliated Issuers), of any felony or misdemeanor:

- in connection with the purchase or sale of any security;
- involving the making of any false filing with the SEC; or
- arising out of the conduct of the business of an underwriter, broker, dealer, municipal securities dealer, investment advisor or paid solicitor of purchasers of securities.

2. Court Orders, Injunctions and Decrees.

You are not subject to any order, judgment or decree of any court of competent jurisdiction, entered within five years before the sale of the securities, that, at the time of such sale, restrains or enjoins Entity from engaging or continuing to engage in any conduct or practice:

- in connection with the purchase or sale of any security;
- involving the making of any false filing with the SEC; or
- arising out of the conduct of the business of an underwriter, broker, dealer, municipal securities dealer, investment adviser or paid solicitor of purchasers of securities.

3. Final Orders from Specified State or Federal Regulators.

You are not subject to a final order of a state securities commission (or an agency of officer of a state performing similar functions); a state authority that supervises or examines banks, savings associations, or credit unions; a state insurance commission (or an agency or officer of a state performing similar functions); an appropriate federal banking agency; the Commodity Futures Trading Commission; or the National Credit Union Administration that:

- at the time of the sale of the securities, bars Entity from:
    - association with an entity regulated by such commission, authority, agency or officer;
    - engaging in the business of securities, insurance or banking; or
    - engaging in savings association or credit union activities; or
- constitutes a final order based on a violation of any law or regulation that prohibits fraudulent, manipulative, or deceptive conduct entered within ten years before the sale of the securities.

4. SEC Disciplinary Orders.

You are not subject to an order of the SEC entered pursuant to section 15(b) or 15B(c) of the Securities Exchange Act of 1934 (the “Exchange Act”) or section 203(e) or 203(f) of the Investment Advisers Act of 1940 (the “Advisers Act”) that, at the time of the sale of the securities:

- suspends or revokes Entity’s registration as a broker, dealer, municipal securities dealer or investment adviser;
- places limitations on the activities, functions or operations of, or imposes civil money penalties on, such person; or
- bars Entity from being associated with any entity or from participating in the offering of any penny stock.

5. SEC Cease and Desist Orders.

You are not subject to any order of the SEC, entered within five years before the sale of the securities, that, at the time of such sale, orders Entity to cease and desist from committing or causing a future violation of:

- any scienter-based anti-fraud provision of the federal securities laws, including, but not limited to, Section 17(a)(1) of the Securities Act, Section 10(b) of the Exchange Act and Rule 10b-5 thereunder, and Section 206(1) of the Advisers Act or any other rule or regulation thereunder; or
- Section 5 of the Securities Act.

6. Suspension or Expulsion from SRO Membership or Association with an SRO Member.

You have not been suspended or expelled from membership in, or suspended or barred from association with a member of, a securities self-regulatory organization (e.g., a registered national securities exchange or a registered national or affiliated securities association) for any act or omission to act constituting conduct inconsistent with just and equitable principles of trade.

7. SEC Refusal or Stop Order.

You have not filed (as a registrant or issuer), nor was Entity named as an underwriter in any registration statement or Regulation A offering statement filed with the SEC that, within five years before the sale of the securities, was the subject of a refusal order, stop order, or order suspending the Regulation A exemption, or is, at the time of the sale of the securities, the subject of an investigation or proceeding to determine whether a stop order or suspension order should be issued.

8. U.S. Postal Service False Representation Orders

You are not subject to a United States Postal Service false representation order entered within five years before the sale of the securities, nor is Entity, at the time of the sale of the securities, subject to a temporary restraining order or preliminary injunction with respect to conduct alleged by the United States Postal Service to constitute a scheme or device for obtaining money or property through the mail by means of false representations.

9. Affiliated Issuers

If you are controlled by any other entity or if any other entity is an affiliated issuer of the issuer conducting the Offering as a result of your voting power or beneficial ownership of the issuer conducting the Offering, then you can confirm that each such entity can also make the statements set forth in paragraphs 1 through 8 above.

[*If You are the issuer in the offering, include the item below:*]

10. Other Issuer Covered Persons

Entity, the issuer in the offering, has distributed, collected, and thoroughly reviewed a "Rule 506 Disqualification Questionnaire" from each Other Issuer Covered Person (defined herein). With respect to securities of the issuer to be offered and sold in the offering, each of issuer's predecessors (if any), affiliated issuers, directors, executive officers, other officers of the issuer participating in the offering, beneficial owner of 20% or more of the issuer's outstanding voting equity securities, calculated on the basis of voting power, promoters (as that term is defined in Rule 405 under the Securities Act) (each, an "***Other Issuer Covered Person***" and, together, "***Other Issuer Covered***

Persons") completed such questionnaire and confirmed that the statements on Exhibit A of such Other Issuer Covered Person's questionnaire is true and correct as of the date such Other Issuer Covered Person signed the questionnaire. You have no reason to believe, nor has any fact or circumstance come to the attention of the Entity, that (i) any of the Other Issuer Covered Persons incorrectly completed their questionnaire or (ii) any of the Other Issuer Covered Persons will be unable to make the statements set forth in Exhibit A to their questionnaire prior to the offering of the securities.

Exhibit 10.3

SECURITIES ISSUANCE AGREEMENT

THIS SECURITIES ISSUANCE AGREEMENT (the "**Agreement**"), dated as of January 13, 2015, by and among ZIOPHARM Oncology, Inc., a Delaware corporation (the "**Issuer**"), the University of Texas System Board of Regents on behalf of The University of Texas M.D. Anderson Cancer Center, an agency of the State of Texas ("**MD Anderson**"). Capitalized terms used herein but not otherwise defined shall have the meanings given to them in Section 1.4.

RECITALS

A. Effective as of January 9, 2015, the Issuer and Intrexon Corporation, a Virginia corporation ("**Intrexon**" and together with the Issuer, the "**Issuer Group**"), executed a side letter agreement (the "**Side Letter Agreement**"), in connection with that certain License Agreement of even date herewith between the Board of Regents (the "**Board**") of the University of Texas System, on behalf of MD Anderson (the "**License Agreement**"), pursuant to which the Board, on behalf of MD Anderson, is licensing the rights to certain technology to the Issuer Group, as licensees.

B. As recited by the Side Letter Agreement, in consideration of, among other things, MD Anderson's agreement to undertake any and all extraordinary efforts to expedite and/or shorten its contracting, review and approval processes and to conclude and execute the License Agreement on or before the Accelerated Closing Deadline (as defined in the Side Letter Agreement), each member of the Issuer Group has agreed to issue and sell to MD Anderson certain shares of common stock of such member of the Issuer Group.

C. The Issuer and MD Anderson are executing and delivering this Agreement in reliance upon the exemption from registration afforded by Section 4(a)(2) of the Securities Act of 1933, as amended (the "**Securities Act**"), and Rule 506(b) of Regulation D ("**Regulation D**") as promulgated by the United States Securities and Exchange Commission (the "**Commission**") under the Securities Act.

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 Issuer and MD Anderson agree as follows:

ARTICLE I
PURCHASE AND SALE

1.1 Authorization of Sale of Shares.

(a) Issuer Shares. Subject to the terms and conditions of this Agreement, the Issuer shall issue to MD Anderson One Million, Five Hundred Ninety-Seven Thousand, Six Hundred Two (1,597,602) shares of Issuer Common Stock (the "**Issuer Shares**").

(b) Capital Adjustments. If after the date hereof, but prior to the date the Issuer Shares have been issued to MD Anderson in accordance with Section 1.3(a): (i) the outstanding shares of Issuer Common Stock shall be subdivided or split into a greater number of shares or a dividend in Issuer Common Stock shall be paid in respect of Issuer Common Stock or (ii) the outstanding shares of Issuer Common Stock are combined, then all share quantities in this Agreement not yet issued shall be appropriately adjusted to reflect such stock split, stock dividend or conjunction. If after the date hereof, but prior to the date the Issuer Shares have been issued to MD Anderson in accordance with Section 1.3(a): (i) the Issuer shall pay a dividend in securities of the Issuer (other than in Issuer Common Stock) or of other property (including cash) on Issuer Common Stock, or (ii) there shall occur any merger, consolidation, capital reorganization or reclassification in which Issuer Common Stock is converted or exchanged for securities, cash or other property, the class or series of stock constituting Issuer Common Stock for purposes of this Agreement, shall be appropriately adjusted to reflect such other dividend, merger, consolidation, capital reorganization or reclassification. After any event referenced in clauses (i) through (ii) of the immediately preceding sentence is consummated, if applicable, all references herein to Issuer Common Stock shall be deemed to refer to the capital stock or property (including cash) into or for which the Issuer Common Stock was converted or exchanged, with the necessary changes in detail.

1.2 Closing. Subject to the terms and conditions set forth in this Agreement, at the Closing, the Issuer shall issue and sell to MD Anderson, and MD Anderson shall purchase from the Issuer, the Issuer Shares. The closing of the issuance of the Issuer Shares to MD Anderson by the Issuer (the "**Closing**") will occur, subject to the conditions set forth in Article V, within the time period specified in the License Agreement or on such other date as the Issuer and MD Anderson 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 Issuer and MD Anderson may agree upon.

1.3 Closing Deliverables.

(a) Promptly following the Closing, the Issuer shall deliver to MD Anderson certificates representing the Issuer Shares purchased at the Closing, registered in the names of MD Anderson.

(b) At the Closing, the Issuer and MD Anderson shall execute and deliver the Registration Rights Agreement.

1.4 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.

"**Issuer Common Stock**" means the Issuer's common stock, par value $0.001 per share.

"**Issuer Covered Person**" means, with respect to the Issuer as an "issuer" for purposes of Rule 506 promulgated under the Securities Act, any Person listed in the first paragraph of Rule 506(d)(1).

"**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 of even date herewith, among the Issuer and MD Anderson, in the form of Exhibit A attached to this Agreement.

"**Trading Day**" means a NASDAQ trading day.

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

ARTICLE II
REPRESENTATIONS AND WARRANTIES OF THE ISSUER

Subject to and except as set forth in the SEC Documents (as defined below) or on the Disclosure Schedule which is arranged in sections corresponding to the sub-section numbered provisions contained below in this Section, the Issuer hereby represents and warrants to MD Anderson as of the date hereof as follows:

2.1 Organization, Good Standing and Power. The Issuer 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 Issuer with the Commission pursuant to the reporting requirements of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), since the end of the Issuer's 2013 fiscal year through the date hereof, including, without limitation, the Issuer's most recent quarterly report on Form 10-Q. The Issuer does not have any subsidiaries. The Issuer 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 Issuer that is material and adverse to the Issuer, taken as a whole, and any condition, circumstance or situation that would prohibit the Issuer from entering into and performing any of its obligations hereunder.

2.2 Authorization; Enforcement. The Issuer has the requisite corporate power and authority to enter into and perform the Transaction Documents and to issue and sell the Issuer

Shares to be issued by the Issuer in accordance with the terms hereof. The execution, delivery and performance of this Agreement by the Issuer 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 Issuer, its board of directors or stockholders is required. When executed and delivered by the Issuer, this Agreement shall constitute a valid and binding obligation of the Issuer enforceable against the Issuer 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 Issuer's board of directors, at a meeting duly called and held, adopted resolutions approving the transactions contemplated hereby, including the issuance of the Issuer Shares to be issued by the Issuer pursuant to this Agreement.

2.3 Issuance of Issuer Shares. The Issuer Shares to be issued and sold by the Issuer hereunder have been duly authorized by all necessary corporate action and, when paid for and issued in accordance with the terms hereof, will be validly issued, fully paid and nonassessable. In addition, the Issuer Shares 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 Issuer (collectively, "**Encumbrances**") and rights of refusal of any kind imposed by the Issuer (other than restrictions on transfer under applicable securities laws) and the holder of the Issuer Shares shall be entitled to all rights accorded to a holder of Issuer Common Stock.

2.4 No Conflicts; Governmental Approvals. The execution, delivery and performance of the Transaction Documents by the Issuer and the consummation by the Issuer of the transactions contemplated hereby do not and will not (i) violate any provision of the Issuer'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 Issuer is a party or by which the Issuer'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 Issuer or by which any property or asset of the Issuer is bound or affected. The Issuer 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 Issuer Shares to be issued by the Issuer in accordance with the terms hereof (other than any filings, consents and approvals which may be required to be made by the Issuer under applicable state and federal securities laws, rules or regulations prior to or subsequent to the Closing).

2.5 Capitalization. The issued and outstanding shares of capital stock of the Issuer 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 Issuer has an authorized, issued and outstanding capitalization as set forth in the Issuer's most recent annual report on Form 10-K or quarterly report on Form 10-Q (other than the grant of additional awards under the Issuer's

equity incentive plans or changes in the number of outstanding shares of Issuer Common Stock due to the issuance of shares upon the exercise or conversion of securities exercisable for, or convertible or exchangeable into, shares of Issuer Common Stock outstanding). Except as disclosed in the Issuer's most recent annual report on Form 10-K or quarterly report on Form 10-Q, the Issuer 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 Issuer's equity incentive plans).

2.6 SEC Documents, Financial Statements. The Issuer represents and warrants that as of the date hereof, the Issuer Common Stock is registered pursuant to Section 12(b) of the Exchange Act. Since January 1, 2013, the Issuer 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 Issuer 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 Issuer 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 Issuer 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 Issuer 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 Issuer 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 Issuer represents and warrants that McGladrey LLP, whose report on the financial statements of the Issuer is filed with the Commission in the Issuer's Annual Report on Form 10-K for the year ended December 31, 2013, 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 Issuer's knowledge, McGladrey LLP has not engaged in any non-audit services prohibited by subsection (g) of Section 10A of the Exchange Act on behalf of the Issuer.

2.8 Internal Controls. The Issuer 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 Issuer 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 Issuer that could significantly affect the Issuer's internal controls, including any corrective actions with regard to significant deficiencies and material weaknesses. The Issuer is in compliance in all material respects with all provisions currently in effect and applicable to the Issuer 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, 2013, the Issuer 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 Issuer's business or (iii) declared, made or paid any dividend or distribution of any kind on its capital stock.

2.11 No Undisclosed Events or Circumstances. Except as disclosed in the SEC Documents, since December 31, 2013, except for the consummation of the transactions contemplated herein, to the Issuer's knowledge, no event or circumstance has occurred or exists with respect to the Issuer or its businesses, properties, prospects, operations or financial condition, which, under applicable law, rule or regulation, requires public disclosure or announcement by the Issuer but which has not been so publicly announced or disclosed.

2.12 Litigation. Except as disclosed in the SEC Documents, no action, suit, proceeding or investigation is currently pending or, to the knowledge of the Issuer, has been threatened in writing against the Issuer that: (i) concerns or questions the validity of this Agreement; (ii) concerns or questions the right or authority of the Issuer to enter into the Transaction Documents and to perform its obligations thereunder; or (iii) is reasonably likely to have a Material Adverse Effect. The Issuer 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 Issuer currently pending or that the Issuer intends to initiate that would have a Material Adverse Effect.

2.13 Compliance. The Issuer (i) is not in violation of any provision of the Issuer'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 Issuer under), nor has the Issuer 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.

2.14 Listing and Maintenance Requirements. The Issuer is in compliance with the requirements of the NASDAQ for continued listing of the Issuer Common Stock thereon and the Issuer has not received any notification that, and has no knowledge that the NASDAQ is contemplating terminating such listing. The issuance and sale of the Issuer Shares hereunder does not contravene the rules and regulations of the NASDAQ in any material respect.

2.15 Investment Company Act. The Issuer is not and, after giving effect to the offering and sale of the Issuer Shares, 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.

2.16 Private Placement. Neither the Issuer nor its Affiliates, nor 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 Issuer Shares 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 Issuer of the Issuer Shares under the Securities Act or (iii) has issued any shares of Issuer 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 Issuer Common Stock which would be integrated with the sale of the Issuer Shares to MD Anderson 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 Issuer are listed or designated, nor will the Issuer or any of its Affiliates take any action or steps that would require registration of any of the Issuer Shares under the Securities Act or cause the offering of the Issuer Shares to be integrated with other offerings. Assuming the accuracy of the representations and warranties of MD Anderson, the offer and sale of the Issuer Shares to be issued by the Issuer to MD Anderson pursuant to this Agreement will be exempt from the registration requirements of the Securities Act.

2.17 No Manipulation of Stock. The Issuer 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 Issuer Common Stock.

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

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

2.20 Reliance. The Issuer understands that the foregoing representations and warranties shall be deemed material and to have been relied upon by MD Anderson.

ARTICLE III
REPRESENTATIONS, WARRANTIES AND COVENANTS OF MD ANDERSON

MD Anderson hereby represents, warrants and covenants to the Issuer as follows:

3.1 Authorization and Power. MD Anderson has the requisite power and authority to enter into and perform the Transaction Documents and to purchase the Issuer Shares being sold to it hereunder. The execution, delivery and performance of this Agreement by MD Anderson 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 MD Anderson or its board of regents, board of directors, stockholders or other governing body is required. When executed and delivered by MD Anderson, this Agreement shall constitute a valid and binding obligation of MD Anderson, enforceable against MD Anderson 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 MD Anderson and the consummation by MD Anderson of the transactions contemplated hereby do not and will not (i) violate any provision of MD Anderson'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 MD Anderson is a party or by which MD Anderson'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 MD Anderson or by which any property or asset of MD Anderson are bound or affected, except, in all cases, other than violations (with respect to federal and state securities laws) above, for such conflicts, defaults, terminations, amendments, acceleration, cancellations and violations as would not, individually or in the aggregate, materially and adversely affect MD Anderson's ability to perform its obligations under this Agreement.

3.3 Purchaser Sophistication; Accredited Investor. MD Anderson (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 Issuer Shares, including investments in securities issued by the Issuer 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 Issuer Shares; (b) in connection with its decision to purchase the Issuer Shares, relied only upon the SEC Documents, other publicly available information, and the representations and warranties of the Issuer contained herein; (c) is an "accredited investor" pursuant to Rule 501 of Regulation D under the Securities Act; (d) is acquiring the Issuer Shares for its own account for investment

only and with no present intention of distributing any of the Issuer Shares or any arrangement or understanding with any other persons regarding the distribution of the Issuer Shares; (e) has not been organized, reorganized or recapitalized specifically for the purpose of investing in the Issuer Shares; (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 Issuer Shares except in compliance with the Securities Act and applicable state securities laws; (g) understands that the Issuer Shares 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 Issuer is relying upon the truth and accuracy of, and MD Anderson's compliance with, the representations, warranties, agreements, acknowledgments and understandings of MD Anderson set forth herein in order to determine the availability of such exemptions and the eligibility of MD Anderson to acquire the Issuer Shares; (h) understands that its investment in the Issuer Shares involves a significant degree of risk, including a risk of total loss of MD Anderson's investment (provided that such acknowledgment in no way diminishes the representations, warranties and covenants made by the Issuer 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 Issuer Shares.

3.4 Principal Office. MD Anderson maintains its principal executive office in Houston, Texas.

3.5 Restricted Shares. MD Anderson acknowledges that the Issuer Shares are restricted securities and must be held indefinitely unless subsequently registered under the Securities Act or (if the Issuer is not selling the Issuer Shares pursuant to Rule 144 promulgated under the Securities Act) the Issuer receives an opinion of counsel reasonably satisfactory to the Issuer that such registration is not required. MD Anderson 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 Issuer, 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. MD Anderson further acknowledges and understands that the Issuer may not be satisfying the current public information requirement of Rule 144 at the time MD Anderson wishes to sell the Issuer Shares and, if so, MD Anderson may be precluded from selling the Issuer Shares under Rule 144 even if the required holding period has been satisfied.

3.6 Ownership of Capital Stock. As of the date hereof, excluding the Issuer Shares, MD Anderson and its Affiliates beneficially own no shares of capital stock of the Issuer.

3.7 Stock Legends. MD Anderson acknowledges that certificates evidencing the Issuer Shares 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. MD Anderson understands that nothing in this Agreement or any other materials presented by or on behalf of the Issuer to MD Anderson in connection with the purchase of the Issuer Shares constitutes legal, tax or investment advice. MD Anderson 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 Issuer Shares.

3.9 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 Issuer or MD Anderson for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of MD Anderson.

3.10 Regulation M. MD Anderson is aware that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of Issuer Common Stock and other activities with respect to Issuer Common Stock.

ARTICLE IV
COVENANTS OF THE PARTIES

4.1 Lockup.

(a) Agreement to Lock-Up. MD Anderson hereby agrees that it will not, without the prior written consent of the Issuer during the period commencing on the Closing Date and ending on the date that is one hundred twenty (120) days after the Closing Date (i) lend, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Issuer Common Stock; or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any shares of Issuer Common Stock, whether any such transaction described in clause (a) or (b) above is to be settled by delivery of Issuer Common Stock or other securities, in cash or otherwise; provided, that this Section 4.1 shall not apply to any transfer of Issuer Shares by MD Anderson to its Affiliates, provided that as a condition of such transfer, such Affiliate agrees in writing to be bound by the provisions of this Section 4.1 to the same extent as MD Anderson.

(b) Stop Transfer Instructions. In order to enforce the foregoing covenant, the Issuer may impose stop-transfer instructions with respect to the shares of Issuer Common Stock of MD Anderson (and transferees and assignees thereof) until the end of such restricted period.

4.2 Further Transfers. Without in any way limiting the provisions of Section 4.1, MD Anderson covenants that the Issuer Shares 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 Issuer Shares other than pursuant to an effective registration statement or Rule 144, the Issuer may require MD Anderson to provide to the Issuer an opinion of counsel selected by MD Anderson, the form and substance of which opinion shall be reasonably satisfactory to the Issuer, to the effect that such transfer does not require registration under the Securities Act.

4.3 Furnishing of Information. In order to enable MD Anderson to sell the Issuer Shares under Rule 144, until the date that the Issuer Shares cease to be Registrable Securities (as defined in the Registration Rights Agreement) (and for no less than 12 months from the Closing), the Issuer shall 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 Issuer after the date hereof pursuant to the Exchange Act. If, during such period, the Issuer is not required to file reports pursuant to the Exchange Act, it shall use its commercially reasonable efforts to prepare and furnish to MD Anderson and make publicly available in accordance with Rule 144(c) such information as is required for MD Anderson to sell the Issuer Shares under Rule 144.

4.4 No Integration. The Issuer shall not, and shall use its commercially reasonable efforts to ensure that no Affiliate of the Issuer 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 Issuer Shares pursuant to this Agreement in a manner that would require the registration under the Securities Act of the sale of the Issuer Shares to MD Anderson, or that will be integrated with the offer or sale of the Issuer Shares 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.

ARTICLE V
CONDITIONS TO CLOSING

5.1 Conditions Precedent to the Obligations of MD Anderson. The obligation of MD Anderson to acquire the Issuer Shares at the Closing is subject to the satisfaction or waiver by MD Anderson, at or before the Closing, of each of the following conditions:

(a) Representations and Warranties. The representations and warranties of the Issuer 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.

(b) Performance. The Issuer shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by the Issuer on or before the Closing.

(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) Listing of Additional Shares. The Issuer shall have submitted a Listing of Additional Shares Notification with the NASDAQ covering all of the Issuer Shares.

(e) License Agreement. Each Licensee shall have executed and delivered the License Agreement, and the License Agreement shall be in full force and effect.

(f) Registration Rights Agreement. The Issuer 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 Issuer. The obligation of the Issuer to issue the Issuer Shares at the Closing is subject to the satisfaction or waiver by the Issuer, at or before the Closing, of each of the following conditions:

(a) Representations and Warranties. The representations and warranties of MD Anderson contained in Article III shall be true and correct in all respects as of the Closing.

(b) Performance. MD Anderson 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 MD Anderson at or prior to the Closing.

(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) "Bad Actor" Certifications. The Issuer and each Issuer Covered Person shall have provided to the Issuer a properly completed and executed questionnaire in the form of Exhibit B hereto prior to the date hereof and on or prior to the Closing Date no "bad actor" disqualifying event described in Rule 506(d)(1)(i)-(viii) of the Securities Act (a "**Disqualification Event**") is applicable to the Issuer or, to the Issuer's knowledge, the Issuer Covered Person, except for a Disqualification Event as to which Rule 506(d)(2)(ii–iv) or (d)(3), is applicable.

(e) License Agreement. MD Anderson shall have executed and delivered the License Agreement, and the License Agreement shall be in full force and effect.

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

(g) Intrexon Documentation. MD Anderson shall deliver evidence satisfactory to the Issuer that Intrexon has executed and delivered a securities issuance agreement and registration rights agreement in form and substance reasonably satisfactory to the Issuer.

ARTICLE VI
MISCELLANEOUS

6.1 Survival of Warranties. Unless otherwise set forth in this Agreement, the representations and warranties of the Issuer and MD Anderson contained in or made pursuant to this Agreement (a) shall survive the execution and delivery of this Agreement and the Closing for a period of three (3) years after the Closing; provided, however, notwithstanding the foregoing, the representations and warranties of the Issuer set forth in Sections 2.1, 2.2 and 2.3 shall survive the execution and delivery of this Agreement and the Closing indefinitely; and (b) shall in no way be affected by any investigation or knowledge of the subject matter thereof made by or on behalf of MD Anderson or the Issuer.

6.2 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 Issuer agrees to indemnify and to hold harmless MD Anderson 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 Issuer or any of its officers, employees or representatives is responsible. MD Anderson, severally, agrees to indemnify and hold harmless the Issuer 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 MD Anderson or any of its officers, employees or representatives is responsible.

6.3 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.

6.4 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.

6.5 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 Issuer:	ZIOPHARM Oncology, Inc. 1 First Avenue Parris Building, #34 Boston, MA 02129 Attention: Chief Executive Officer Email: cbelbel@ziopharm.com Fax No.: 617.778.0420
with copies (which copies shall not constitute notice to the Issuer) to:	Cooley LLP 500 Boylston Street Boston, MA 02116 Attention: Marc Recht Email: mrecht@cooley.com Fax No.: 617.937.2400
If to MD Anderson	University of Texas System Board of Regents on behalf of The University of Texas M.D. Anderson Cancer Center Legal Services-Unit 1674 P.O. Box 301407 Houston, Texas 77230-1407 Attention: Legal Services And Legal Services-1MC11.3433 The University of Texas M. D. Anderson Cancer Center 7007 Bertner Avenue Houston, Texas 77030-3907 Attention: Legal Services

6.6 Amendments; Waivers. This Agreement and any term hereof may be amended, terminated or waived only with the written consent of the Issuer and MD Anderson. 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.

6.7 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.

6.8 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns. The Issuer may not assign this Agreement or any rights or obligations hereunder without the prior written consent of MD Anderson; *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 Issuer is a party, (ii) in connection with the acquisition of all or substantially all of the assets of the Issuer or (iii) any other similar business combination transaction involving the Issuer. MD Anderson may assign its rights under this Agreement only to a Person to whom MD Anderson assigns or transfers all Issuer Shares held by MD Anderson; *provided*, *that* (i) following such transfer or assignment, the further disposition of the Issuer Shares 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.

6.9 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.

6.10 State Agency Limitations. MD Anderson is an agency of the State of Texas and under the Constitution and laws of the State of Texas possesses certain rights and privileges, is subject to certain limitations and restrictions, and only has such authority as is granted to it under the Constitution and laws of the State of Texas. Notwithstanding any provision hereof, nothing in this Agreement is intended to be, nor will it be construed to be, a waiver of the sovereign immunity of the State of Texas or a prospective waiver or restriction of any of the rights, remedies, claims, and privileges of the State of Texas. Moreover, notwithstanding the generality or specificity of any provision hereof, the provisions of this agreement as they pertain to MD Anderson are enforceable only to the extent authorized by the Constitution and laws of the State of Texas.

6.11 Governing Law; Dispute Resolution. This Agreement will be governed by the laws of the State of Texas without regard to conflict of law principles. In the event of any dispute between the Issuer on the one hand, and MD Anderson on the other (a "**Dispute**"), the parties agree that such Dispute shall be first submitted for resolution for a period of ten (10) calendar days to designated senior officers of each of the parties who hold legal authority to resolve and settle such dispute. If any Dispute cannot be resolved and settled within such period, then to the extent authorized by the law governing the power and authority of each party, the parties agree to submit such Dispute to full and binding arbitration that will be undertaken and conducted under the auspices of the American Arbitration Association by a panel of three (3) arbitrators pursuant to that organization's Commercial Arbitration Rules then in effect, as modified by and subject to the following terms:

(a) MD Anderson, on the one hand, and the Issuer, on the other, will each choose one arbitrator and those two arbitrators will select the third arbitrator.

(b) The fees and expenses of the arbitrators shall be borne in equal shares by the parties.

(c) Each party shall bear the fees and expenses of its legal representation in the arbitration.

(d) The arbitral tribunal shall not reallocate either the fees and expenses of the arbitrators or of the parties' legal representation.

(e) The arbitration shall be held in Nashville, Tennessee, USA which shall be the seat of the arbitration.

(f) The arbitrators may not award, and no party may seek, indirect, incidental, consequential, punitive, exemplary, special, or enhanced damages, or prejudgment interest, or attorneys' fees or costs, nor may the arbitrators apply any multiplier to any award of actual damages, except as may be required by statute.

(g) The arbitrators must issue a reasoned award, setting forth the arbitrators' findings of fact and conclusions of law.

(h) The award of the arbitrators may be entered in any court of competent jurisdiction. The award rendered by the arbitrators shall be final and binding on the parties, except that the award is subject to limited judicial review and vacatur for the following reasons only: (i) the award was procured by corruption, fraud, or undue means, (ii) the award was tainted by evidence of partiality or corruption by any of the arbitrators, (iii) the award was tainted by misconduct by any of the arbitrators, (iv) the arbitrators exceeded their powers, and/or (v) the award evidences a manifest disregard of the law or is contrary to public policy. If the parties are unable to resolve a Dispute through binding arbitration, then any lawsuit pertaining to such Dispute that is brought by one party against another must be presented to and decided by a state or federal court in the home locale of the defendant party (that being Houston, Texas for MD Anderson, and Boston, Massachusetts for the Issuer).

6.12 Counterparts; Execution. This Agreement may be executed in three (3) 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.

6.13 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.

[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 ISSUER:

ZIOPHARM ONCOLOGY, INC.

By: /s/ Jonathan Lewis
Jonathan Lewis, 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.

MD ANDERSON:

BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM
On behalf of The University of Texas M.D. Anderson Cancer Center

By: /s/ Ronald A. DePinho, MD
Name: Ronald A. DePinho, MD
Title: President

Exhibit A

REGISTRATION RIGHTS AGREEMENT

[See Attached]

Exhibit B

“BAD ACTOR” QUESTIONNAIRE FORMS

ZIOPHARM ONCOLOGY, INC.

CONFIDENTIAL Rule 506 Disqualification Event Questionnaire ("***Individual***")

COMPLETED ON BEHALF OF*:*

This questionnaire is being furnished to you to obtain information in connection with a potential offering (the "***Offering***") of securities under Rule 506 of the Securities Act of 1933 (the "***Securities Act***"). As used in this questionnaire, "***you***" also refers to any entity on whose behalf you are responding.

Please review Exhibit A and confirm that you can make all of the statements on behalf of yourself, as well as any entity that you control, directly or indirectly. If you cannot make one or more of the statements, please contact us to provide details. If you have doubts regarding whether you can make all of the statements, please contact us.

By completing and signing this questionnaire, you also indicate: (i) your consent for Cooley LLP and its clients to rely upon the information provided; (ii) your agreement to promptly notify Cooley LLP and the Issuer of securities of any changes in information provided that occurs after the date you sign the questionnaire and prior to the applicable offering of securities; and (iii) your confirmation that the statements on Exhibit A are true and correct, to the best of your knowledge and belief after a reasonable investigation, as of the date you sign the questionnaire, as they pertain to you and to any entity that you control.[1]

Please return this Questionnaire to Cooley LLP, Attn: Christopher Gerry, by e-mail to cgerry@cooley.com. If you have any questions with respect to these matters, please contact Chris at cgerry@cooley.com or 617-937-2323.

The statements on Exhibit A are true and correct to the best of my knowledge, information and belief after a reasonable investigation as of the date below.

_____ _____

Date (Signature)

_____

(Printed Name)

_____

Title (if applicable)

Address: _____

_____

[1] While the SEC has not provided specific guidance as to what they mean by "control" in this context, in other contexts the SEC has determined that *control* means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person, whether through the ownership of voting securities, by contract, or otherwise.

Exhibit A

1. Criminal Convictions.

You have not been convicted, within ten years before the sale of the securities (or five years, in the case of issuers, their predecessors and affiliated issuers), of any felony or misdemeanor:

- in connection with the purchase or sale of any security;
- involving the making of any false filing with the SEC; or
- arising out of the conduct of the business of an underwriter, broker, dealer, municipal securities dealer, investment advisor or paid solicitor of purchasers of securities.

2. Court Orders, Injunctions and Decrees.

Your are not subject to any order, judgment or decree of any court of competent jurisdiction, entered within five years before the sale of the securities, that, at the time of such sale, restrains or enjoins you from engaging or continuing to engage in any conduct or practice:

- in connection with the purchase or sale of any security;
- involving the making of any false filing with the SEC; or
- arising out of the conduct of the business of an underwriter, broker, dealer, municipal securities dealer, investment adviser or paid solicitor of purchasers of securities.

3. Final Orders from Specified State or Federal Regulators.

You are not subject to a final order of a state securities commission (or an agency of officer of a state performing similar functions); a state authority that supervises or examines banks, savings associations, or credit unions; a state insurance commission (or an agency or officer of a state performing similar functions); an appropriate federal banking agency; the Commodity Futures Trading Commission; or the National Credit Union Administration that:

- at the time of the sale of the securities, bars you from:
    - association with an entity regulated by such commission, authority, agency or officer;
    - engaging in the business of securities, insurance or banking; or
    - engaging in savings association or credit union activities; or
- constitutes a final order based on a violation of any law or regulation that prohibits fraudulent, manipulative, or deceptive conduct entered within ten years before the sale of the securities.

4. SEC Disciplinary Orders.

You are not subject to an order of the SEC entered pursuant to section 15(b) or 15B(c) of the Securities Exchange Act of 1934 (the “Exchange Act”) or section 203(e) or 203(f) of the Investment Advisers Act of 1940 (the “Advisers Act”) that, at the time of the sale of the securities:

- suspends or revokes your registration as a broker, dealer, municipal securities dealer or investment adviser;
- places limitations on the activities, functions or operations of, or imposes civil money penalties on, such person; or
- bars you from being associated with any entity or from participating in the offering of any penny stock.

5. SEC Cease and Desist Orders.

You are not subject to any order of the SEC, entered within five years before the sale of the securities, that, at the time of such sale, orders you to cease and desist from committing or causing a future violation of:

- any scienter-based anti-fraud provision of the federal securities laws, including, but not limited to, Section 17(a)(1) of the Securities Act, Section 10(b) of the Exchange Act and Rule 10b-5 thereunder, and Section 206(1) of the Advisers Act or any other rule or regulation thereunder; or
- Section 5 of the Securities Act.

6. **Suspension or Expulsion from SRO Membership or Association with an SRO Member.**

You have not been suspended or expelled from membership in, or suspended or barred from association with a member of, a securities self-regulatory organization (e.g., a registered national securities exchange or a registered national or affiliated securities association) for any act or omission to act constituting conduct inconsistent with just and equitable principles of trade.

7. SEC Refusal or Stop Order.

You have not filed (as a registrant or issuer), nor were you named as an underwriter in any registration statement or Regulation A offering statement filed with the SEC that, within five years before the sale of the securities, was the subject of a refusal order, stop order, or order suspending the Regulation A exemption, or is, at the time of the sale of the securities, the subject of an investigation or proceeding to determine whether a stop order or suspension order should be issued.

8. U.S. Postal Service False Representation Orders.

You are not subject to a United States Postal Service false representation order entered within five years before the sale of the securities, nor are you, at the time of the sale of the securities, subject to a temporary restraining order or preliminary injunction with respect to conduct alleged by the United States Postal Service to constitute a scheme or device for obtaining money or property through the mail by means of false representations.

9. Commission-based Solicitors.

You are not aware of any person or entity, other than any person or entity engaged directly by the issuer, entitled (directly or indirectly) to receive any remuneration in connection with this offering other than as identified by you in writing to the issuer’s outside corporate counsel within the 20 days prior to the consummation of the offering.

ZIOPHARM ONCOLOGY, INC.

CONFIDENTIAL Rule 506 Disqualification Event Questionnaire ("***Entity***")

COMPLETED ON BEHALF OF: **BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM,** On behalf of The University of Texas M.D. Anderson Cancer Center

This questionnaire is being furnished to you to obtain information in connection with a potential offering (the "***Offering***") of securities under Rule 506 of the Securities Act of 1933 (the "***Securities Act***"). As used in this questionnaire, "***you***" refers to any entity on whose behalf you are responding.

Please review Exhibit A and confirm that you can make all of the statements on behalf of Entity. If you cannot make one or more of the statements, please contact us to provide details. If you have doubts regarding whether you can make all of the statements, please contact us.

By completing and signing this questionnaire, you also indicate that: (i) Cooley LLP and its clients may rely upon the information provided; (ii) you will notify Cooley LLP and the Issuer of securities of any changes in information provided that occurs after the date you sign the questionnaire and prior to the applicable offering of securities; and (iii) the statements on Exhibit A are true and correct, to the best of your knowledge and belief after a reasonable investigation, as of the date you sign the questionnaire.

Please return this Questionnaire to Cooley LLP, Attn: Christopher Gerry, by e-mail to cgerry@cooley.com. If you have any questions with respect to these matters, please contact Chris at cgerry@cooley.com or 617-937-2323.

The statements on Exhibit A are true and correct to the best of my knowledge, information and belief after a reasonable investigation as of the date below.

BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM
On behalf of The University of Texas M.D. Anderson Cancer Center

By: _____
Name: _____
Title: _____

_____
Date

Exhibit A

1. Criminal Convictions.

You have not been convicted, within ten years before the sale of the securities (or five years, in the case of issuers, their predecessors and Affiliated Issuers), of any felony or misdemeanor:

- in connection with the purchase or sale of any security;
- involving the making of any false filing with the SEC; or
- arising out of the conduct of the business of an underwriter, broker, dealer, municipal securities dealer, investment advisor or paid solicitor of purchasers of securities.

2. Court Orders, Injunctions and Decrees.

You are not subject to any order, judgment or decree of any court of competent jurisdiction, entered within five years before the sale of the securities, that, at the time of such sale, restrains or enjoins Entity from engaging or continuing to engage in any conduct or practice:

- in connection with the purchase or sale of any security;
- involving the making of any false filing with the SEC; or
- arising out of the conduct of the business of an underwriter, broker, dealer, municipal securities dealer, investment adviser or paid solicitor of purchasers of securities.

3. Final Orders from Specified State or Federal Regulators.

You are not subject to a final order of a state securities commission (or an agency of officer of a state performing similar functions); a state authority that supervises or examines banks, savings associations, or credit unions; a state insurance commission (or an agency or officer of a state performing similar functions); an appropriate federal banking agency; the Commodity Futures Trading Commission; or the National Credit Union Administration that:

- at the time of the sale of the securities, bars Entity from:
  - association with an entity regulated by such commission, authority, agency or officer;
  - engaging in the business of securities, insurance or banking; or
  - engaging in savings association or credit union activities; or
- constitutes a final order based on a violation of any law or regulation that prohibits fraudulent, manipulative, or deceptive conduct entered within ten years before the sale of the securities.

4. SEC Disciplinary Orders.

You are not subject to an order of the SEC entered pursuant to section 15(b) or 15B(c) of the Securities Exchange Act of 1934 (the “Exchange Act”) or section 203(e) or 203(f) of the Investment Advisers Act of 1940 (the “Advisers Act”) that, at the time of the sale of the securities:

- suspends or revokes Entity’s registration as a broker, dealer, municipal securities dealer or investment adviser;
- places limitations on the activities, functions or operations of, or imposes civil money penalties on, such person; or
- bars Entity from being associated with any entity or from participating in the offering of any penny stock.

5. SEC Cease and Desist Orders.

You are not subject to any order of the SEC, entered within five years before the sale of the securities, that, at the time of such sale, orders Entity to cease and desist from committing or causing a future violation of:

- any scienter-based anti-fraud provision of the federal securities laws, including, but not limited to, Section 17(a)(1) of the Securities Act, Section 10(b) of the Exchange Act and Rule 10b-5 thereunder, and Section 206(1) of the Advisers Act or any other rule or regulation thereunder; or
- Section 5 of the Securities Act.

6. Suspension or Expulsion from SRO Membership or Association with an SRO Member.

You have not been suspended or expelled from membership in, or suspended or barred from association with a member of, a securities self-regulatory organization (e.g., a registered national securities exchange or a registered national or affiliated securities association) for any act or omission to act constituting conduct inconsistent with just and equitable principles of trade.

7. SEC Refusal or Stop Order.

You have not filed (as a registrant or issuer), nor was Entity named as an underwriter in any registration statement or Regulation A offering statement filed with the SEC that, within five years before the sale of the securities, was the subject of a refusal order, stop order, or order suspending the Regulation A exemption, or is, at the time of the sale of the securities, the subject of an investigation or proceeding to determine whether a stop order or suspension order should be issued.

8. U.S. Postal Service False Representation Orders

You are not subject to a United States Postal Service false representation order entered within five years before the sale of the securities, nor is Entity, at the time of the sale of the securities, subject to a temporary restraining order or preliminary injunction with respect to conduct alleged by the United States Postal Service to constitute a scheme or device for obtaining money or property through the mail by means of false representations.

9. Affiliated Issuers

If you are controlled by any other entity or if any other entity is an affiliated issuer of the issuer conducting the Offering as a result of your voting power or beneficial ownership of the issuer conducting the Offering, then you can confirm that each such entity can also make the statements set forth in paragraphs 1 through 8 above.

[*If You are the issuer in the offering, include the item below:*]

10. Other Issuer Covered Persons

Entity, the issuer in the offering, has distributed, collected, and thoroughly reviewed a “Rule 506 Disqualification Questionnaire” from each Other Issuer Covered Person (defined herein). With respect to securities of the issuer to be offered and sold in the offering, each of issuer’s predecessors (if any), affiliated issuers, directors, executive officers, other officers of the issuer participating in the offering, beneficial owner of 20% or more of the issuer’s outstanding voting equity securities, calculated on the basis of voting power, promoters (as that term is defined in Rule 405 under the Securities Act) (each, an “***Other Issuer Covered Person***” and, together, “***Other Issuer Covered***

Persons") completed such questionnaire and confirmed that the statements on Exhibit A of such Other Issuer Covered Person's questionnaire is true and correct as of the date such Other Issuer Covered Person signed the questionnaire. You have no reason to believe, nor has any fact or circumstance come to the attention of the Entity, that (i) any of the Other Issuer Covered Persons incorrectly completed their questionnaire or (ii) any of the Other Issuer Covered Persons will be unable to make the statements set forth in Exhibit A to their questionnaire prior to the offering of the securities.

Exhibit 10.4

EXECUTION VERSION

REGISTRATION RIGHTS AGREEMENT

THIS REGISTRATION RIGHTS AGREEMENT (this "**Agreement**") is made and entered into as of January 13, 2015, by and among ZIOPHARM Oncology, Inc., a Delaware corporation (the "**Issuer**"), and the University of Texas System Board of Regents on behalf of The University of Texas M.D. Anderson Cancer Center, an agency of the State of Texas ("**MD Anderson**"), and shall become effective as of the Closing (as defined in the Issuance Agreement, defined below).

RECITALS

A. This Agreement is being entered into pursuant to the Securities Issuance Agreement between the Issuer and MD Anderson dated as of January 13, 2015 (the "**Issuance 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 Issuer and MD Anderson 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 Issuer.

"**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 acquisition and issuance of the Issuer Shares pursuant to the Issuance Agreement.

"**Commission**" means the Securities and Exchange Commission.

"**Effectiveness Date**" the 120th calendar day following the Closing Date; provided, however, that if the Effectiveness Date falls on a day that is not a Business Day, then the Effectiveness Date shall be extended to the next Business Day.

"**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 fifteenth (15th) 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).

"**Issuer Common Stock**" means, the Issuer's Common Stock, par value $0.001 per share.

"**Issuer Shares**" means the shares of Issuer Common Stock.

"**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 all of the Issuer Shares issued to MD Anderson pursuant to the Issuance Agreement or otherwise held by MD Anderson on the date that the Registration Statement contemplated by Section 2.1 is filed by the Issuer, and any securities issued with respect to, or in exchange for or in replacement of such shares of Issuer Common Stock upon any stock split, stock dividend, recapitalization, subdivision, merger or similar event; *provided*,

however, that the applicable Holder has completed and delivered to the Issuer 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.

"**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 Issuer from time to time.

"**Transaction Documents**" means this Agreement, the Issuance Agreement, the License Agreement (as defined in the Issuance Agreement), and the schedules and exhibits attached hereto and thereto.

ARTICLE II
REGISTRATION

2.1 Registration Obligations; Filing Date Registration. On or prior to the Filing Date, the Issuer shall prepare and file with the Commission 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 Issuer 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 Issuer shall undertake to register the Registrable Securities on Form S-3 as soon as practicable following the availability of such form, provided that the Issuer 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 Issuer 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 such date as all Registrable Securities covered by such Registration Statement have ceased to be Registrable Securities (the "**Effectiveness Period**"). By 5:30 pm Eastern Time on the Business Day following the Effective Date, the Issuer 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.

ARTICLE III
REGISTRATION PROCEDURES

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

(a) Prepare and file with the Commission on or prior to the Filing Date, a Registration Statement on Form S-3 (or if the Issuer 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(l)) 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, 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 may request that the Issuer amend or supplement the Registration

Statement to include such Holder as a selling stockholder, and the Issuer 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(l)) 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 Issuer 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 Issuer 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 Issuer's responses thereto and (C) with respect to the Registration Statement or any post-effective amendment filed by the Issuer, 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 Issuer; (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 Issuer of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Registrable Securities of the Issuer 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 and (ii) make all required filings of such Prospectus supplement or such post-effective amendment as soon as practicable after the Issuer 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.

(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 Issuer 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.

(i) Cooperate with the Holders to facilitate the timely preparation and delivery of certificates representing Registrable Securities of the Issuer 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 Issuer are then listed or traded.

(l) The Issuer may require each selling Holder to furnish to the Issuer 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 Issuer 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 Issuer which the Board reasonably determines not to be in the Issuer's best interest to disclose and which the Issuer 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 Issuer which the Board reasonably determines not to be in the Issuer's best interest to disclose, then the Issuer may postpone or suspend filing or effectiveness of a Registration Statement for a period (a "**Deferral Period**") not to exceed forty-five (45) consecutive days, provided that the Issuer 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 Issuer shall be permitted for more than one forty-five (45) day period, arising out of the same set of facts, circumstances or transactions.

(n) The Issuer 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 Issuer 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 Issuer 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 Issuer's first fiscal quarter commencing after the effective date of the Registration Statement.

3.2 Holder Covenants. Each Holder covenants and agrees by its acquisition of such Registrable Securities that:

(a) (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 Issuer 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.

(b) Upon receipt of a notice from the Issuer 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 Issuer 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.

(c) 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 Issuer (excluding underwriters' discounts and commissions and all fees and expenses of legal counsel, accountants and other advisors for any Holder except as specifically provided below), except as and to the extent specified in this Section 4.1, shall be borne by the Issuer whether or not a Registration Statement is filed by the Issuer 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 Issuer with the Financial Industry Regulatory Authority and (C) in compliance with state securities or Blue Sky laws by the Issuer or with respect to Registrable Securities, (ii) messenger, telephone and delivery expenses, (iii) fees and disbursements of counsel for the Issuer, (iv) Securities Act liability insurance, if the Issuer so desires such insurance, and (v) fees and expenses of all other Persons retained by the Issuer in connection with the consummation of the transactions contemplated by this Agreement, including, without limitation, the Issuer's independent public accountants). In addition, the Issuer 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.

ARTICLE V
INDEMNIFICATION

5.1 Indemnification by the Issuer. The Issuer 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 Issuer 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 Issuer by such Holder expressly for use in such Registration Statement, such Prospectus or in any amendment or supplement thereto (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 Issuer, which consent shall not be unreasonably withheld. The Issuer shall notify such Holder promptly of the institution, threat or assertion of any Proceeding of which the Issuer 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 Issuer, its directors, officers, agents and employees, each Person who controls the Issuer (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 Issuer by such Holder expressly for use in therein, and that such information was reasonably relied upon by the Issuer 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).

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 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 Issuer 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 Issuer after the date hereof pursuant to Section 13(a) or 15(d) of the Exchange Act. The Issuer 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 Issuer 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 Issuer'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 Limitations Under Texas State Law. MD Anderson is an agency of the State of Texas and under the Constitution and laws of the State of Texas possesses certain rights and privileges, is subject to certain limitations and restrictions, and only has such authority as is granted to it under the Constitution and laws of the State of Texas. Notwithstanding any provision contained in this Agreement, nothing in this Agreement is intended to be, nor will it be construed to be, a waiver of the sovereign immunity of the State of Texas or a prospective waiver or restriction of any of the rights, remedies, claims, and privileges of the State of Texas. Moreover, notwithstanding the generality or specificity of any provision hereof, the provisions of this agreement as they pertain to MD Anderson are enforceable only to the extent authorized by the Constitution and laws of the State of Texas.

7.3 Remedies. In the event of a breach by the Issuer or by a Holder, of any of their obligations under this Agreement, each non-breaching Holder and Issuer, 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 Issuer 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.

7.4 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 Issuer 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 Issuer and the Holders of at least a majority of all Registrable Securities then outstanding. Any amendment or waiver effected in accordance with this Section 7.4 shall be binding upon each Holder (and their permitted assigns).

7.5 No Inconsistent Agreements. The Issuer 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 Issuer's securities under any agreement in effect on the date hereof.

7.6 No Piggyback on Registration. Without the prior written consent of the Holders of a majority of the Registrable Securities, no Registration Statement relating to the offer and sale of Registrable Securities shall register any transaction in any securities of the Issuer, other than the offer and sale of Registrable Securities by the Holders thereof.

7.7 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 Issuer:	ZIOPHARM Oncology, Inc. 1 First Avenue Parris Building, #34 Boston, MA 02129 Attention: Chief Executive Officer Email: cbelbel@ziopharm.com Fax No.: 617.778.0420
with copies (which copies shall not constitute notice to the Issuer) to:	Cooley LLP 500 Boylston Street Boston, MA 02116 Attention: Marc Recht Email: mrecht@cooley.com Fax No.: 617.937.2400

If to MD Anderson	University of Texas System Board of Regents on behalf of The University of Texas M.D. Anderson Cancer Center Legal Services-Unit 1674 P.O. Box 301407 Houston, Texas 77230-1407 And Legal Services-1MC11.3433 The University of Texas M. D. Anderson Cancer Center 7007 Bertner Avenue Houston, Texas 77030-3907 Attention: Legal Services

7.8 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.

7.9 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 Issuer 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.

7.10 Assignment of Registration Rights. The rights of each Holder hereunder, including the right to have the Issuer 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 Issuer within a reasonable time after such assignment, (ii) the Issuer 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 securities with respect to which such registration rights are being transferred or assigned, (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, and (iv) at or before the time the Issuer receives the written notice contemplated by clause (ii) of this Section, the transferee or assignee agrees in writing with the Issuer to be bound by all of the provisions of this Agreement. The rights to assignment shall apply to the Holders (and to subsequent) successors and assigns.

7.11 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.

7.12 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.

7.13 Governing Law; Dispute Resolution. This Agreement will be governed by the laws of the State of Texas without regard to conflict of law principles. In the event of any dispute between the Issuer on the one hand, and MD Anderson on the other (a "**Dispute**"), the Parties agree that such Dispute shall be first submitted for resolution for a period of ten (10) calendar days to designated senior officers of each of the Parties who hold legal authority to resolve and settle such dispute. If any Dispute cannot be resolved and settled within such period, then to the extent authorized by the law governing the power and authority of each Party, the Parties agree to submit such Dispute to full and binding arbitration that will be undertaken and conducted under the auspices of the American Arbitration Association by a panel of three (3) arbitrators pursuant to that organization's Commercial Arbitration Rules then in effect, as modified by and subject to the following terms:

(a) MD Anderson and the Issuer will each choose one arbitrator and those two arbitrators will select the third arbitrator.

(b) The fees and expenses of the arbitrators shall be borne in equal shares by the Parties.

(c) Each Party shall bear the fees and expenses of its legal representation in the arbitration.

(d) The arbitral tribunal shall not reallocate either the fees and expenses of the arbitrators or of the Parties' legal representation.

(e) The arbitration shall be held in Nashville, Tennessee, USA which shall be the seat of the arbitration.

(f) The arbitrators may not award, and no Party may seek, indirect, incidental, consequential, punitive, exemplary, special, or enhanced damages, or prejudgment interest, or attorneys' fees or costs, nor may the arbitrators apply any multiplier to any award of actual damages, except as may be required by statute.

(g) The arbitrators must issue a reasoned award, setting forth the arbitrators' findings of fact and conclusions of law.

(h) The award of the arbitrators may be entered in any court of competent jurisdiction. The award rendered by the arbitrators shall be final and binding on the Parties, except that the award is subject to limited judicial review and vacatur for the following reasons only: (i) the award was procured by corruption, fraud, or undue means, (ii) the award was tainted by evidence of partiality or corruption by any of the arbitrators, (iii) the award was tainted by

misconduct by any of the arbitrators, (iv) the arbitrators exceeded their powers, and/or (v) the award evidences a manifest disregard of the law or is contrary to public policy. If the Parties are unable to resolve a Dispute through binding arbitration, then any lawsuit pertaining to such Dispute that is brought by one Party against another must be presented to and decided by a state or federal court in the home locale of the defendant party (that being Houston, Texas for MD Anderson and Boston, Massachusetts for the Issuer).

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

7.15 Severability. The provisions of this Agreement are severable and, in the event that any court of competent jurisdiction shall determine that any one or more of the provisions or part of the provisions contained in this Agreement shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision or part of a provision of this Agreement and this Agreement shall be reformed and construed as if such invalid or illegal or unenforceable provision, or part of such provision, had never been contained herein, so that such provisions would be valid, legal and enforceable to the maximum extent possible.

7.16 Headings. 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.

[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 ISSUER:

ZIOPHARM ONCOLOGY, INC.

By: /s/ Jonathan Lewis
Jonathan Lewis, 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.

MD ANDERSON:

BOARD OF REGENTS OF THE UNIVERSITY OF TEXAS SYSTEM
On behalf of The University of Texas M.D. Anderson Cancer Center

By: /s/ Ronald A. DePinho, MD
Name: Ronald A. DePinho, MD
Title: President

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 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 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 (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 January 13, 2015 (the "Registration Rights Agreement"), among the Company and the Purchasers 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% of 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 Issuer 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 issuer 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:

Exhibit 99.1

Intrexon, ZIOPHARM, and MD Anderson in Exclusive CAR T Pact

Exclusive Licensing Agreement for CAR T Cell, TCR, NK Cell Programs and Associated Technologies for the Development of Non-Viral Adoptive Cellular Therapies

Combined Technologies to Leapfrog Clinical Pipeline of Next Generation Therapies Using Synthetic and Personalized Immunology

GERMANTOWN, Md., BOSTON, Ma., and HOUSTON, Tx., January 13, 2015 – Intrexon Corporation (NYSE: XON), a leader in synthetic biology and its oncology partner, ZIOPHARM Oncology (NASDAQ:ZIOP), today announced a broad exclusive licensing agreement with The University of Texas MD Anderson Cancer Center, including an exclusive sublicensing agreement through MD Anderson for intellectual property developed at the University of Minnesota for the development of non-viral adoptive cellular cancer immunotherapies.

The licensed technologies arise from the laboratory of Laurence Cooper, M.D., Ph.D., professor of pediatrics at MD Anderson and Perry Hackett, Ph.D., professor within the College of Biological Sciences at Minnesota. The Cooper and Hackett laboratories have pioneered the design and clinical investigation of novel chimeric antigen receptor (CAR) T cell therapies using non-viral gene integration platforms. MD Anderson has built on this technology to deliver patient-derived T cells, as well as innovative approaches to generating products for universal off-the-shelf applications. When combined with Intrexon's technology suite and ZIOPHARM's clinically tested RheoSwitch Therapeutic System® interleukin-12 modules, the resulting proprietary methods and technologies may help realize the promise of genetically modified CAR T cells by tightly controlling cell expansion and activation in the body, minimizing off-target effects and toxicity while maximizing therapeutic efficacy.

"Genetically engineering our patients' immune-system T cells to efficiently attack and destroy cancer cells represents one of the most exciting approaches with curative potential in oncology today," MD Anderson President Ron DePinho, M.D., said. "We believe coupling MD Anderson's unique CAR T cell approach with the powerful technologies of ZIOPHARM and Intrexon will allow us to build T cells that hit cancer harder, with greater precision, under tighter control and with potentially fewer side effects for patients. This agreement ranks as one of MD Anderson's most substantial collaborations and will provide significant resources to fuel its mission of Making Cancer History®."

"We are proud to see Perry Hackett's discovery and development work on Sleeping Beauty, a non-viral DNA plasmid-based gene transfer system, in conjunction with Dr. Cooper's expertise in immunotherapies, provide this breakthrough in oncology" said Brian Hermann, Vice President of Research at the University of Minnesota.

Employing novel cell engineering techniques and multigenic gene programs, the collaboration will implement next-generation non-viral adoptive cellular therapies based on designer cytokines and CARs under control of RheoSwitch® technology targeting both hematologic and solid tumor malignancies. The synergy between the platforms will be leveraged to accelerate a promising synthetic immunology pipeline, with up to five CARs expected to enter the clinic in 2015 and off-the-shelf programs initiating in 2016.

“It is a shared vision to maximize the speed and breadth of multigenic innovation for patients through the use of nimble, non-viral DNA cell manufacturing strategies that can further overcome viral packaging constraints and economic limitations,” stated Gregory Frost, Ph.D., Senior Vice President and Head of Intrexon’s Health Sector. “Collectively, this will assemble the most advanced set of technologies to empower the strongest adoptive cell therapy pipeline that can drive innovation through multiple horizons and patient populations.”

Cooper, Hackett and colleagues developed a non-viral DNA plasmid-based gene transfer system to modify T cells by creating a CAR that recognizes and binds to a specific cell surface protein on targeted malignant cells. The testing of this system at MD Anderson in humans paves the way for the rapid design and implementation of modified T cells that can be infused into patients with many types of malignancies.

Work continues in conjunction with MD Anderson’s Moon Shots Program, an ambitious initiative to accelerate the conversion of scientific discoveries into clinical advances and significantly reduce cancer deaths, first targeting eight types of cancer. Cooper leads the Applied Cellular Therapeutics platform for the moon shots, providing expertise and new cellular therapy capabilities for both blood and solid tumor cancers. Clinical trials using non-viral adoptive cellular therapies are either under way or planned for specific moon shot cancers.

The shared infrastructure between MD Anderson, Intrexon and ZIOPHARM enables two approaches to deliver these commercially viable T cells to the bedside. The first develops a point-of-care approach with rapid assembly and infusion of autologous T cells. The second arises from the universal donor platform to infuse off-the-shelf T cells using innovative activation and targeting gene programs that precisely recognize and systemically combat malignancies. The collaboration will advance these platforms in parallel with the most effective CAR-T products tested at MD Anderson graduating to multicenter trials.

“The promise of controlled, cell-based immuno-oncology therapy is that we can achieve dramatic, long duration anti-cancer results while keeping patients out of intensive care during treatment. As importantly, we can reproduce these results in a globally scalable and economically viable way,” remarked Jonathan Lewis, M.D., Ph.D., Chief Executive Officer of ZIOPHARM Oncology. “The MD Anderson Cancer Center has long been a leader in cancer therapy, in terms of innovation, patient care, and the highest quality research. As part of our commitment to this important partnership and the acceleration of translational medicine, ZIOPHARM will build a base of operations in Houston to join and collaborate with the academic and medical community around this world-class institution.”

“The human application of T cell therapies provides cancer patients with new hope, and the alignment of MD Anderson’s immunotherapy and translational programs with Intrexon and ZIOPHARM will help make that hope a reality,” Cooper said. “These two interconnected companies have first-in-class genetic tools and systems to reprogram cells and the management and regulatory expertise to undertake development of potent and focused cell-based immunotherapies.”

Under the terms of the agreement, MD Anderson shall receive consideration of $100 million; $50 million from each Intrexon and ZIOPHARM, payable in shares of their respective common stock, as well as a commitment of $15 to $20 million annually over three years for researching and developing the technologies. The parties will enter into additional collaboration and technology transfer agreements to accelerate technology and clinical development. Further details on the terms of the transaction will be available within the current reports on Form 8-K filed today by Intrexon and ZIOPHARM.

About Intrexon Corporation

Intrexon Corporation (NYSE: XON) is a leader in synthetic biology focused on collaborating with companies in Health, Food, Energy, Environment, and Consumer Sectors to create biologically-based products that improve the quality of life and the health of the planet. Through the company’s proprietary UltraVector® platform and suite of technologies, Intrexon provides its partners with industrial-scale design and development of complex biological systems. The UltraVector® platform delivers unprecedented control over the quality, function, and performance of living cells. We call our synthetic biology approach and integrated technologies **Better DNA®**, and we invite you to discover more at www.dna.com.

About ZIOPHARM Oncology, Inc.

ZIOPHARM Oncology is a Boston, Massachusetts-based biotechnology company employing novel gene expression and control technology to deliver DNA for the treatment of cancer. ZIOPHARM’s technology platform employs Intrexon Corporation’s RheoSwitch Therapeutic System^® technology to turn on and off, and precisely modulate, gene expression at the cancer site in order to improve the therapeutic index. This technology is currently being evaluated in Phase 2 clinical studies of the immune system cytokine interleukin-12 for the treatment of breast cancer and advanced melanoma. The Company’s synthetic immuno-oncology programs in collaboration with Intrexon also include chimeric antigen receptor T cell (CAR-T) approaches.

About MD Anderson

The University of Texas MD Anderson Cancer Center in Houston ranks as one of the world’s most respected centers focused on cancer patient care, research, education and prevention. It is one of only 41 comprehensive cancer centers designated by the National Cancer Institute (NCI). For the past 25 years, MD Anderson has ranked as one of the nation’s top two cancer centers in U.S. News & World Report’s annual “Best Hospitals” survey. It receives a cancer center support grant from the NCI of the National Institutes of Health (P30 CA016672).

Trademarks

Intrexon, UltraVector, RheoSwitch Therapeutic System, RheoSwitch, RTS, and Better DNA are trademarks of Intrexon and/or its affiliates. Other names may be trademarks of their respective owners.

Forward-Looking Safe Harbor Statement:

This press release contains certain forward-looking information about ZIOPHARM Oncology, Inc. and Intrexon Corporation that is intended to be covered by the safe harbor for "forward-looking statements" provided by the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are statements that are not historical facts. Words such as "expect(s)," "feel(s)," "believe(s)," "will," "may," "anticipate(s)" and similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to, statements regarding our ability to successfully develop and commercialize our therapeutic products; our ability to expand our long-term business opportunities; our future presentations at industry meetings; financial projections and estimates and their underlying assumptions; and future performance. All of such statements include certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: whether any of our other therapeutic discovery and development efforts will advance further in pre-clinical research or in the clinical trials process and whether and when, if at all, they will receive final approval from the U.S. Food and Drug Administration or equivalent foreign regulatory agencies and for which indications; whether any other therapeutic products we develop will be successfully marketed if approved; our ability to achieve the results contemplated by our collaboration agreements; the strength and enforceability of our intellectual property rights; competition from other pharmaceutical and biotechnology companies; the development of, and our ability to take advantage of, the market for our therapeutic products; our ability to raise additional capital to fund our operations on terms acceptable to us; general economic conditions; and the other risk factors contained in our periodic and interim SEC reports filed from time to time with the Securities and Exchange Commission, including but not limited to, our Annual Reports on Form 10-K for the fiscal year ended December 31, 2013 and our Quarterly Reports on Form 10-Q for the quarter ended September 30, 2014. Readers are cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.

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