

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

FORM S-8
REGISTRATION STATEMENT
 UNDER
THE SECURITIES ACT OF 1933

ZIOPHARM ONCOLOGY, INC.

(Exact name of registrant as specified in its charter)

Delaware
 (State or other jurisdiction of
 incorporation or organization)

84-1475672
 (I.R.S. Employer
 Identification No.)

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

02129
 (Zip Code)

New Hire Inducement Stock Option Grant
 (Full titles of the plans)

Caesar J. Belbel
Executive Vice President, Chief Operating Officer, Chief Legal Officer and Secretary
ZIOPHARM Oncology, Inc.
One First Avenue, Parris Building 34
Boston, Massachusetts 02129
(617) 259-1970

(Name, address, including zip code, and telephone number, including area code, of agent for service)

With a copy to:

Marc A. Recht
Cooley LLP
500 Boylston Street, 14th Floor
Boston, Massachusetts 02116
(617) 937-2300

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer
 Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company
 Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share (3)	Proposed Maximum Aggregate Offering Price (3)	Amount of Registration Fee

Common Stock, par value \$0.001 per share	500,000 shares (2)	\$6.19	\$3,095,000.00	\$385.33
<p>(1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the “<i>Securities Act</i>”), this registration statement shall also cover any additional shares of the Registrant’s common stock, par value \$0.001 per share (“<i>Common Stock</i>”), that become issuable under the new hire inducement stock option award by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of the Registrant’s outstanding shares of Common Stock.</p> <p>(2) Represents shares of the Registrant’s Common Stock reserved for issuance upon the exercise of the new hire inducement stock option award granted outside of the Registrant’s 2012 Equity Incentive Plan, as amended, to the Registrant’s Executive Vice President and Chief Business Officer.</p> <p>(3) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h) promulgated under the Securities Act. The maximum offering price per share and the maximum aggregate offering price are calculated on the basis of \$6.19 per share, the exercise price of the new hire inducement stock option award granted by the Registrant to its Executive Vice President and Chief Business Officer as a material inducement to his acceptance of employment with the Registrant in accordance with Rule 5635(c)(4) of the NASDAQ Listing Rules.</p>				

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed for the purpose of registering 500,000 shares of Common Stock of ZIOPHARM Oncology, Inc. (the "*Registrant*") underlying an inducement award in the form of a stock option award granted to the Registrant's Executive Vice President and Chief Business Officer on September 28, 2017, with a per share exercise price of \$6.19. The Compensation Committee of the Registrant's Board of Directors granted the new hire inducement stock option award outside of, but subject to the terms generally consistent with, the Company's 2012 Equity Incentive Plan, as amended, as a material inducement to acceptance of his employment with the Registrant in accordance with NASDAQ Listing Rule 5635(c)(4).

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information specified in Item 1 and Item 2 of Part I of Form S-8 is omitted from this Registration Statement in accordance with the provisions of Rule 428 under the Securities Act. The documents containing the information specified in Item 1 and Item 2 of Part I of Form S-8 will be delivered to the participant in the plan covered by this Registration Statement as specified by Rule 428(b)(1) under the Securities Act.

PART II

INCORPORATION OF DOCUMENTS BY REFERENCE

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE

The following documents filed by the Registrant with the U.S. Securities and Exchange Commission (the “*Commission*”) are incorporated by reference to this Registration Statement:

(a) The Registrant’s Annual Report on Form 10-K (File No. 001-33038) for the fiscal year ended December 31, 2016, filed with the Commission on February 16, 2017;

(b) The Registrant’s Quarterly Reports on Form 10-Q (File No. 001-33038) for the quarters ended March 31, 2017 and June 30, 2017, filed with the Commission on May 1, 2017 and July 31, 2017, respectively;

(c) All other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act (other than Current Reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits furnished on such form that relate to such items) since the end of the fiscal year covered by the Registrant’s Annual Report on Form 10-K for the fiscal year ended December 31, 2016; and

(d) The description of the Registrant’s Common Stock contained in the Registrant’s Registration Statement on Form 8-A filed on September 20, 2006 (File No. 001-33038), under the Securities Exchange Act of 1934, as amended (the “*Exchange Act*”), including any amendment or report filed for the purpose of updating such description.

All other reports and documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement, which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part of this Registration Statement from the date of the filing of such reports and documents; provided, however, that documents, reports and definitive proxy or information statements, or portions thereof, which are furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document that also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

ITEM 4. DESCRIPTION OF SECURITIES

Not applicable.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL

Not applicable.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act. The Registrant's amended and restated certificate of incorporation provides for indemnification of the Registrant's directors to the maximum extent permitted by applicable law, and the Registrant's bylaws, as amended, provide for indemnification of the Registrant's directors, officers, employees and other agents to the maximum extent permitted by law.

The Registrant has entered into indemnification agreements with the Registrant's directors and officers, whereby the Registrant has agreed to indemnify the Registrant's directors and officers to the fullest extent permitted by the Delaware General Corporation Law, including advancement of expenses incurred in legal proceedings to which the director or officer was, or is threatened to be made, a party by reason of the fact that (i) such director or officer is or was a director or officer of the Registrant, (ii) such director or officer acted while a director, officer, employee or agent of the Registrant, or (iii) such director or officer was serving at the request of the Registrant as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise. At present, there is no pending litigation or proceeding involving a director or officer of the Registrant regarding which indemnification is sought, nor is the Registrant aware of any threatened litigation that may result in claims for indemnification.

The Registrant maintains a directors' and officers' liability insurance policy that indemnifies the Registrant's directors and officers against various liabilities arising under the Securities Act and the Exchange Act that might be incurred by any director or officer in his capacity as such.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED

Not applicable.

ITEM 8. EXHIBITS

Exhibit Number	Description	Schedule Form	Incorporated by Reference		
			File Number	Exhibit	Filing Date
4.1	Amended and Restated Certificate of Incorporation of ZIOPHARM Oncology, Inc., as filed with the Delaware Secretary of State on April 26, 2006.	8-K	000-32353	3.1	April 26, 2006
4.2	Bylaws of ZIOPHARM Oncology, Inc., as amended to date.	8-K	000-32353	3.3	September 19, 2005
4.3	Specimen common stock certificate.	SB-2	333-129020	4.1	October 14, 2005
5.1*	Opinion of Cooley LLP.				
23.1*	Consent of RSM US LLP, an Independent Registered Public Accounting Firm.				
23.2*	Consent of Cooley LLP (included in Exhibit 5.1).				
24.1*	Power of Attorney (included on the signature page of this Form S-8).				
99.1	ZIOPHARM Oncology, Inc. 2012 Equity Incentive Plan, as amended.	8-K	001-33038	10.1	June 19, 2014
99.2	Inducement Award Agreement between ZIOPHARM Oncology, Inc. and David M. Mauney, M.D., dated September 28, 2017.	8-K	001-33038	10.3	September 28, 2017

* Filed herewith

ITEM 9. UNDERTAKINGS

1. The undersigned Registrant hereby undertakes:

(a) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

- (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and
- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (a)(i) and (a)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

2. The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
3. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Boston, Commonwealth of Massachusetts, on the 4th day of October, 2017.

ZIOPHARM ONCOLOGY, INC.

By: /s/ Kevin G. Lafond

Kevin G. Lafond

Vice President Finance, Chief Accounting
Officer and Treasurer



October 4, 2017

ZIOPHARM Oncology, Inc.
One First Avenue
Parris Building 34, Navy Yard Plaza
Boston, MA 02129

Ladies and Gentlemen:

We have acted as counsel to ZIOPHARM Oncology, Inc., a Delaware corporation (the "**Company**"), in connection with the filing by the Company of a Registration Statement on Form S-8 (the "**Registration Statement**") with the Securities and Exchange Commission, covering the offering of up to 500,000 shares of the Company's Common Stock, par value \$0.001 per share (the "**Shares**") pursuant to an inducement stock option award (the "**Inducement Award**")

In connection with this opinion, we have examined and relied upon the Registration Statement and the related prospectus, the Company's Amended and Restated Certificate of Incorporation, and Bylaws, as amended, each as currently in effect, the Company's 2012 Equity Incentive Plan, as amended, and the originals or copies certified to our satisfaction of such other documents, records, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. We have assumed the genuineness and authenticity of all documents submitted to us as originals and the conformity to originals of all documents submitted to us as copies thereof. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not sought to independently verify such matters.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion as to whether the laws of any particular jurisdiction are applicable to the subject matter hereof. We are not rendering any opinion as to compliance with any federal or state antifraud, rule or regulation relating to securities, or to the sale or issuance thereof.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued in accordance with the Inducement Award, the Registration Statement and related prospectus, will be validly issued, fully paid, and nonassessable (except as to shares issued pursuant to certain deferred payment arrangements, which will be fully paid and nonassessable when such deferred payments are made in full).

We consent to the filing of this opinion as an exhibit to the Registration Statement.

Sincerely,

Cooley LLP

By: /s/ Marc A. Recht

Marc A. Recht

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in this Registration Statement on Form S-8 of ZIOPHARM Oncology, Inc. of our report dated February 16, 2017 (which report expresses an unqualified opinion and includes an explanatory paragraph relating to going concern), relating to the financial statements and the effectiveness of internal control over financial reporting of ZIOPHARM Oncology, Inc., appearing in the Annual Report on Form 10-K of ZIOPHARM Oncology, Inc. for the year ended December 31, 2016.

/s/ RSM US LLP

Boston, Massachusetts
October 4, 2017