

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934(1)

ZIOPHARM ONCOLOGY, INC.  
(Name of Issuer)

COMMON STOCK, \$.001 PAR VALUE  
(Title of Class of Securities)

98973P101  
(CUSIP Number)

MAY 3, 2006  
(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant  
to which this Schedule is filed:

Rule 13d-1(b)

Rule 13d-1(c)

Rule 13d-1(d)

-----  
(1) The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, SEE the NOTES).

CUSIP No. 98973P101

13G

Page 2 of 10 Pages

-----  
1. NAMES OF REPORTING PERSONS  
I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)  
  
ProQuest Investments III, L.P. 20-0992411

-----  
2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*\* (a) | |  
(b) |X|

-----  
3. SEC USE ONLY

-----  
4. CITIZENSHIP OR PLACE OF ORGANIZATION  
  
Delaware

-----  
5. SOLE VOTING POWER  
NUMBER OF -0-  
SHARES

-----  
6. SHARED VOTING POWER  
BENEFICIALLY 1,403,888  
OWNED BY

EACH 7. SOLE DISPOSITIVE POWER  
REPORTING -0-  
PERSON WITH 8. SHARED DISPOSITIVE POWER  
1,403,888  
-----  
9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
1,403,888  
-----  
10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 9 EXCLUDES  
CERTAIN SHARES\*\* |\_  
-----  
11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9  
9.01%  
-----  
12. TYPE OF REPORTING PERSON\*\*  
PN  
-----

\*\* SEE INSTRUCTIONS BEFORE FILLING OUT

-----  
 1. NAMES OF REPORTING PERSONS  
 I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)

ProQuest Associates III LLC

20-0992451

-----  
 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*\*

(a) | |

(b) |X|

-----  
 3. SEC USE ONLY

-----  
 4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

-----  
 5. SOLE VOTING POWER

-0-

NUMBER OF

SHARES

-----  
 6. SHARED VOTING POWER

1,403,888

BENEFICIALLY

OWNED BY

-----  
 7. SOLE DISPOSITIVE POWER

-0-

EACH

REPORTING

-----  
 8. SHARED DISPOSITIVE POWER

1,403,888

PERSON WITH

-----  
 9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,403,888

-----  
 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 9 EXCLUDES  
 CERTAIN SHARES\*\*

|\_ |

-----  
 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

9.01%

-----  
 12. TYPE OF REPORTING PERSON\*\*

00

-----  
 \*\* SEE INSTRUCTIONS BEFORE FILLING OUT

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1.	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)  Jay Moorin
-----	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP** (a)     (b)  X
-----	
3.	SEC USE ONLY
-----	
4.	CITIZENSHIP OR PLACE OF ORGANIZATION  United States
-----	
NUMBER OF	5. SOLE VOTING POWER
SHARES	-0-
-----	
BENEFICIALLY	6. SHARED VOTING POWER
OWNED BY	1,403,888
-----	
EACH	7. SOLE DISPOSITIVE POWER
REPORTING	-0-
-----	
PERSON WITH	8. SHARED DISPOSITIVE POWER
	1,403,888
-----	
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  1,403,888
-----	
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 9 EXCLUDES CERTAIN SHARES**
-----	
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9  9.01%
-----	
12.	TYPE OF REPORTING PERSON**  IN
-----	

\*\* SEE INSTRUCTIONS BEFORE FILLING OUT

-----  
 1. NAMES OF REPORTING PERSONS  
 I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)

Alain Schreiber

-----  
 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\*\* (a) | |  
 (b) |X|

-----  
 3. SEC USE ONLY

-----  
 4. CITIZENSHIP OR PLACE OF ORGANIZATION

United States Resident Alien

-----  
 5. SOLE VOTING POWER  
 NUMBER OF SHARES -0-

-----  
 6. SHARED VOTING POWER  
 BENEFICIALLY OWNED BY 1,403,888

-----  
 7. SOLE DISPOSITIVE POWER  
 EACH REPORTING PERSON WITH -0-

-----  
 8. SHARED DISPOSITIVE POWER  
 1,403,888

-----  
 9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  
 1,403,888

-----  
 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 9 EXCLUDES CERTAIN SHARES\*\* | |

-----  
 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9  
 9.01%

-----  
 12. TYPE OF REPORTING PERSON\*\*  
 IN

-----  
 \*\* SEE INSTRUCTIONS BEFORE FILLING OUT

## ITEM 1(A). NAME OF ISSUER.

ZIOPHARM Oncology, Inc. (the "Company").

## ITEM 1(B). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES.

The Company's principal executive offices are located at 1180 Avenue of the Americas, 19th Floor, New York, NY 10036.

## ITEMS 2(A). NAME OF PERSON FILING.

This statement is filed on behalf of the following persons with respect to shares of common stock of the Company and stock warrants to purchase shares of common stock of the Company purchased by such persons (collectively, the "Shares") in connection with a private placement of the Company's securities:

(i) ProQuest Investments III, L.P., a Delaware limited partnership ("Investments III"), with respect to Shares beneficially owned by it;

(ii) ProQuest Associates III LLC, a Delaware limited liability company ("Associates III"), as General Partner of Investments III, with respect to Shares beneficially owned by Investments III;

(iii) Jay Moorin, an individual and a member of Associates III ("Moorin"), with respect to Shares beneficially owned by Investments III; and

(iv) Alain Schreiber, an individual and a member of Associates III ("Schreiber"), with respect to Shares beneficially owned by Investments III.

The foregoing persons are hereinafter referred to collectively as the "Reporting Persons." Any disclosures herein with respect to persons other than the Reporting Persons are made on information and belief after making inquiry to the appropriate party.

## ITEM 2(B). ADDRESS OF PRINCIPAL BUSINESS OFFICE OR, IF NONE, RESIDENCE.

The address of the principal business office of each of the Reporting Persons is 90 Nassau Street, 5th Floor, Princeton, NJ 08542.

## ITEM 2(C). CITIZENSHIP.

Mr. Moorin is a United States citizen. Mr. Schreiber is a United States resident alien. Investments III is a Delaware limited partnership organized under the laws of the State of Delaware. Associates III is a Delaware limited liability company organized under the laws of the State of Delaware.

## ITEM 2(D). TITLE OF CLASS OF SECURITIES.

Common stock, par value \$0.001 per share.

## ITEM 2(E). CUSIP NUMBER.

98973P101

## ITEM 3.

If this statement is filed pursuant to Rules 13d-1(b) or 13d- 2(b) or (c), check whether the person filing is a:

- (a)  Broker or dealer registered under Section 15 of the Act,
- (b)  Bank as defined in Section 3(a)(6) of the Act,
- (c)  Insurance Company as defined in Section 3(a)(19) of the Act,
- (d)  Investment Company registered under Section 8 of the Investment Company Act of 1940,
- (e)  Investment Adviser in accordance with Rule 13d-1 (b)(1)(ii)(E),
- (f)  Employee Benefit Plan or Endowment Fund in accordance with 13d-1 (b)(1)(ii)(F),
- (g)  Parent Holding Company or control person in accordance with Rule 13d-1 (b)(1)(ii)(G),
- (h)  Savings Association as defined in Section 3(b) of the Federal Deposit Insurance Act,
- (i)  Church Plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act of 1940,
- (j)  Group, in accordance with Rule 13d-1(b)(1)(ii)(J).

If this statement is filed pursuant to 13d-1(c), check this box:

## ITEM 4. OWNERSHIP.

The percentages used herein are calculated based upon 15,264,248 shares issued and outstanding, as of May 3, 2006, based upon the Company's Current Report on Form 8-K dated May 3, 2006. As of the close of business on May 3, 2006, the Reporting Persons beneficially owned shares of the Company's common stock in the amounts and percentages listed below:

## A. PROQUEST INVESTMENTS III, L.P.

- (a) Amount beneficially owned: 1,403,888
- (b) Percent of class: 9.01%

- (c) (i) Sole power to vote or direct the vote: -0-
- (ii) Shared power to vote or direct the vote: 1,403,888
- (iii) Sole power to dispose or direct the disposition: -0-
- (iv) Shared power to dispose or direct the disposition:  
1,403,888

B. PROQUEST ASSOCIATES III LLC

- (a) Amount beneficially owned: 1,403,888
- (b) Percent of class: 9.01%
- (c) (i) Sole power to vote or direct the vote: -0-
- (ii) Shared power to vote or direct the vote: 1,403,888
- (iii) Sole power to dispose or direct the disposition: -0-
- (iv) Shared power to dispose or direct the disposition:  
1,403,888

C. JAY MOORIN

- (a) Amount beneficially owned: 1,403,888
- (b) Percent of class: 9.01%
- (c) (i) Sole power to vote or direct the vote: -0-
- (ii) Shared power to vote or direct the vote: 1,403,888
- (iii) Sole power to dispose or direct the disposition: -0-
- (iv) Shared power to dispose or direct the disposition:  
1,403,888

D. ALAIN SCHREIBER

- (a) Amount beneficially owned: 1,403,888
- (b) Percent of class: 9.01%
- (c) (i) Sole power to vote or direct the vote: -0-
- (ii) Shared power to vote or direct the vote: 1,403,888
- (iii) Sole power to dispose or direct the disposition: -0-
- (iv) Shared power to dispose or direct the disposition:  
1,403,888

## ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS.

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following. |\_|

## ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON.

To the knowledge of the Reporting Persons, no other person has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, a number of the Shares which represents more than five percent of the number of outstanding shares of the Shares.

## ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY.

Not Applicable.

## ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP.

Not Applicable.

## ITEM 9. NOTICE OF DISSOLUTION OF GROUP.

Not Applicable.

## ITEM 10. CERTIFICATIONS.

Each of the Reporting Persons hereby makes the following certification:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

DATED: May 10, 2006

/s/ Pasquale DeAngelis

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Pasquale DeAngelis, as a member of  
ProQuest Associates III LLC and on  
behalf of ProQuest Investments III, L.P.

\*

-----  
Jay Moorin, individually

\*

-----  
Alain Schreiber, individually

\*By: /s/ Pasquale DeAngelis

-----  
Pasquale DeAngelis, Attorney-in-Fact  
Power of attorney filed as an exhibit hereto

Index Exhibit

SCHEDULE 13G

EXHIBIT NUMBER	EXHIBIT DESCRIPTION
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99.1	Joint Filing Agreement
99.2	Power of Attorney

JOINT FILING AGREEMENT

The undersigned hereby agree that statements on Schedules 13G and 13D and Forms 3, 4 and 5 with respect to the shares of common stock of ZIOPHARM Oncology, Inc. and any amendments thereto signed by each of the undersigned shall be filed on behalf of each of the undersigned pursuant to and in accordance with the provisions of Rule 13d-1(k) promulgated under the Securities Exchange Act of 1934, as amended. The undersigned hereby further agree that this Joint Filing Agreement may be included as an exhibit to such statements or amendments. This Joint Filing Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument.

Dated: As of May 10, 2006

PROQUEST ASSOCIATES III LLC

/S/ PASQUALE DEANGELIS

-----  
Pasquale DeAngelis, a member

PROQUEST INVESTMENTS III, L.P.

BY: PROQUEST ASSOCIATES III LLC

/S/ PASQUALE DEANGELIS

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Pasquale DeAngelis, a member

\*

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Jay Moorin

\*

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Alain Schreiber

\*By: /S/ PASQUALE DEANGELIS  
-----  
Pasquale DeAngelis, Attorney-in-Fact  
Power of Attorney filed as an exhibit hereto

## POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each of the undersigned hereby constitutes and appoints, as of the date hereof, Pasquale DeAngelis, his or her true and lawful attorney-in-fact with full power of substitution, resubstitution and revocation, for the undersigned and in the undersigned's name, place and stead, in any and all capacities, including, but not limited to, the undersigned's individual capacity and the undersigned's capacity as a member of ProQuest Associates III LLC, a Delaware limited liability company ("Associates III"), to execute all agreements, certificates, forms, instruments, or other documents, and to take any action, necessary to file beneficial ownership reports on Schedules 13D and 13G and Forms 3, 4 and 5 (including any amendments thereto, and including any beneficial ownership reports which may in the future be required by the Securities and Exchange Commission to be filed provided that the purpose and form of such reports is substantially similar to Schedules 13D or 13G or Form 3, 4 or 5) under the Securities Exchange Act of 1934 with the Securities and Exchange Commission or any stock exchange or similar authority, in connection with any equity investments in ZIOPHARM Oncology, Inc. by each of the undersigned in his or her individual capacity and by each of Associates III and ProQuest Investments III, L.P. ("Investments III" and together with Associates III, the "Companies").

In connection with the appointment of such attorney-in-fact, each of the undersigned hereby grants unto said attorney-in-fact full power and authority to do and perform each and every act and thing which, in the opinion of such attorney-in-fact, may be requisite, necessary, proper or of benefit to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, thereby ratifying and confirming all that said attorney-in-fact (or attorney-in-fact's substitute or substitutes), may lawfully do or cause to be done by virtue hereof, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in his own discretion. Each of the undersigned acknowledges that the foregoing attorney-in-fact, in serving in such capacity at the request of the undersigned, is not assuming any of the undersigned's or the Companies' responsibilities to comply with Section 13 or Section 16 of the Securities Exchange Act of 1934.

Dated: As of May 10, 2006

/S/ JAY MOORIN

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Jay Moorin

/S/ ALAIN SCHREIBER

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Alain Schreiber