

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

Schedule 13G

Under the Securities Exchange Act of 1934

Ziopharm Oncology, Inc.
(Name of Issuer)

Common Stock
(Title of Class of Securities)

98973P101
(CUSIP Number)

May 1, 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)

CUSIP No.98973P101

- 1) Name of Reporting Person.....Lehman Brothers Holdings Inc.
S.S. or I.R.S. Identification No. of Above Person.....13-3216325
- 2) Check the Appropriate Box if a Member of a Group.....(a)
(b)
- 3) SEC Use Only
- 4) Citizenship or Place of Organization.....Delaware

Number of Shares Beneficially Owned by Each Reporting Person With:

- 5) Sole Voting Power.....1,123,109(1)
- 6) Shared Voting Power.....-0-
- 7) Sole Dispositive Power.....1,123,109(1)
- 8) Shared Dispositive Power.....-0-
- 9) Aggregate Amount Beneficially Owned by Each Reporting Person...1,123,109(1)
- 10) Check if the Aggregate Amount in Row (9) Excludes Certain Shares.....
- 11) Percent of Class Represented by Amount in Row 9.....7.23%(2)
- 12) Type of Reporting Person.....HC

(1) Consists of 863,930 shares of Common Stock and 259,179 shares of Common Stock issuable pursuant to a warrant that is presently exercisable.
 (2) Based on 7,272,992 shares of common stock as reported in the Issuer's Prospectus on Form 424B3 filed with the Securities and Exchange Commission on April 26, 2006; 7,991,256 shares of common stock issued on May 3, 2006, as disclosed in the Form 8-K filed by the Company on May 3, 2006; and 259,179 warrants held by the Reporting Persons.

CUSIP No.98973P101

- 1) Name of Reporting Person.....Lehman Brothers Inc.
S.S. or I.R.S. Identification No. of Above Person.....13-2518466
- 2) Check the Appropriate Box if a Member of a Group.....(a)
(b)

- 3) SEC Use Only
 - 4) Citizenship or Place of Organization.....Delaware
- Number of Shares Beneficially Owned by Each Reporting Person With:
- 5) Sole Voting Power.....1,123,109(1)
 - 6) Shared Voting Power.....-0-
 - 7) Sole Dispositive Power.....1,123,109(1)
 - 8) Shared Dispositive Power.....-0-
 - 9) Aggregate Amount Beneficially Owned by Each Reporting Person...1,123,109(1)
 - 10) Check if the Aggregate Amount in Row (9) Excludes Certain Shares.....[]
 - 11) Percent of Class Represented by Amount in Row 9.....7.23%(2)
 - 12) Type of Reporting Person.....BD

(1) Consists of 863,930 shares of Common Stock and 259,179 shares of Common Stock issuable pursuant to a warrant that is presently exercisable.
 (2) Based on 7,272,992 shares of common stock as reported in the Issuer's Prospectus on Form 424B3 filed with the Securities and Exchange Commission on April 26, 2006; 7,991,256 shares of common stock issued on May 3, 2006, as disclosed in the Form 8-K filed by the Company on May 3, 2006; and 259,179 warrants held by the Reporting Persons.

- CUSIP No.98973P101
- 1) Name of Reporting Person.....LB I Group Inc.
 S.S. or I.R.S. Identification No. of Above Person.....13-2741778
 - 2) Check the Appropriate Box if a Member of a Group.....(a) []
 (b) []
 - 3) SEC Use Only

- 4) Citizenship or Place of Organization.....Delaware
- Number of Shares Beneficially Owned by Each Reporting Person With:
- 5) Sole Voting Power.....1,123,109(1)
 - 6) Shared Voting Power.....-0-
 - 7) Sole Dispositive Power.....1,123,109(1)
 - 8) Shared Dispositive Power.....-0-
 - 9) Aggregate Amount Beneficially Owned by Each Reporting Person...1,123,109(1)
 - 10) Check if the Aggregate Amount in Row (9) Excludes Certain Shares.....[]
 - 11) Percent of Class Represented by Amount in Row 9.....7.23%(2)
 - 12) Type of Reporting Person.....C0

(1) Consists of 863,930 shares of Common Stock and 259,179 shares of Common Stock issuable pursuant to a warrant that is presently exercisable.
 (2) Based on 7,272,992 shares of common stock as reported in the Issuer's Prospectus on Form 424B3 filed with the Securities and Exchange Commission on April 26, 2006; 7,991,256 shares of common stock issued on May 3, 2006, as disclosed in the Form 8-K filed by the Company on May 3, 2006; and 259,179 warrants held by the Reporting Persons.

Item 1(a). Name of Issuer:
 Ziopharm Oncology, Inc.

Item 1(b). Address of Issuer's Principal Executive Offices:
 1180 Avenue of the Americas
 19th Floor
 New York, New York 10036

Item 2(a). Name of Person(s) Filing:

Lehman Brothers Holdings Inc.
Lehman Brothers Inc.
LB I Group Inc.

Item 2(b). Address of Principal Business Office:

Lehman Brothers Holdings Inc.
745 Seventh Avenue
New York, New York 10019

Lehman Brothers Inc.
745 Seventh Avenue
New York, New York 10019

LB I Group Inc.
745 Seventh Avenue
New York, New York 10019

Item 2(c). Citizenship or Place of Organization:

Lehman Brothers Holdings Inc. ("Holdings") is a corporation organized under the laws of the State of Delaware.

Lehman Brothers Inc. ("LBI") is a corporation organized under the laws of the State of Delaware.

LB I Group Inc. ("LB I Group") is a corporation organized under the laws of the State of Delaware.

Item 2(d). Title of Class of Securities:

Common Stock

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) A broker or dealer under Section 15 of the 1934 Act
- (b) A bank as defined in Section 3(a)(6) of the 1934 Act
- (c) An insurance company as defined in Section 3(a)(19) of the 1934 Act
- (d) An investment company registered under Section 8 of the Investment Company Act of 1940
- (e) An investment advisor in accordance with Rule 13d-1(b)(1)(ii)(E)
- (f) An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F)
- (g) A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G)
- (h) A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act
- (i) A church plan that is excluded from the definition of investment company under Section 3(c)(14) of the Investment Company Act of 1940
- (j) A group, in accordance with Rule 13d-1(b)(1)(ii)(J)

Item 4. Ownership

LB I Group owns 863,930 shares of Common Stock of the Issuer and 259,179 shares of Common Stock issuable pursuant to a warrant that is presently exercisable.

(a) Amount Beneficially Owned

See Item 9 of cover page.

(b) Percent of Class:

See Item 11 of cover page.

(c) Number of shares as to which the person has:

- (i) sole power to vote or to direct the vote
- (ii) shared power to vote or to direct the vote
- (iii) sole power to dispose or to direct the disposition

(iv) shared power to dispose or to direct the disposition

See Items 5-8 of cover page.

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

Not Applicable

Item 7. Identification and Classification of the Subsidiary which Acquired the Security being Reported on by the Parent Holding Company or Control Person

LB I Group is the actual owner of the shares of common stock and warrants reported herein. LB I Group is a wholly-owned subsidiary of LBI, which is a wholly-owned subsidiary of Holdings.

Under the rules and regulations of the Securities and Exchange Commission, both LBI and Holdings may be deemed to be the beneficial owners of the shares of common stock and warrants owned by LB I Group.

Item 8. Identification and Classification of Members of the Group

Not Applicable

Item 9. Notice of Dissolution of Group

Not Applicable

Item 10. Certification

[] By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and 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.

[X] By signing below I hereby 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.

After reasonable inquiry and to the best of the undersigned's knowledge and belief, the undersigned hereby certifies that the information set forth in this statement is true, complete and correct.

Dated: May 5, 2006

LEHMAN BROTHERS HOLDINGS INC.

By: /s/ Barrett S. DiPaolo
Name: Barrett S. DiPaolo
Title: Vice President

LEHMAN BROTHERS INC.

By: /s/ Barrett S. DiPaolo
Name: Barrett S. DiPaolo
Title: Senior Vice President

LB I GROUP INC.

By: /s/ Barrett S. DiPaolo
Name: Barrett S. DiPaolo
Title: Authorized Signatory

EXHIBIT A - JOINT FILING AGREEMENT

The undersigned hereby agree that the Statement on Schedule 13G filed herewith (and any amendments thereto), is being filed jointly with the Securities and Exchange Commission pursuant to Rule 13d-1(k) (1) under the Securities Exchange Act of 1934, as amended, on behalf of each such person.

Dated: May 5, 2006

LEHMAN BROTHERS HOLDINGS INC.

By: /s/ Barrett S. DiPaolo
Name: Barrett S. DiPaolo
Title: Vice President

LEHMAN BROTHERS INC.

By: /s/ Barrett S. DiPaolo
Name: Barrett S. DiPaolo
Title: Senior Vice President

LB I GROUP INC.

By: /s/ Barrett S. DiPaolo
Name: Barrett S. DiPaolo
Title: Authorized Signatory