

U.S. 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)

December 31, 2009

(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)

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 disclosures provided in a prior cover page.

The information required on 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 ("Act") 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).

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY) Merlin BioMed Private Equity Advisors, LLC (IRS No. 13-4178606)	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware limited liability company	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 0
	6	SHARED VOTING POWER 2,419,500
	7	SOLE DISPOSITIVE POWER 0
	8	SHARED DISPOSITIVE POWER 2,419,500
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,419,500	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions) 0	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 5.8%	
12	TYPE OF REPORTING PERSON (See Instructions) OO	

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY) Dominique Sémon	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Switzerland	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 0
	6	SHARED VOTING POWER 2,419,500
	7	SOLE DISPOSITIVE POWER 0
	8	SHARED DISPOSITIVE POWER 2,419,500
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,419,500	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions) o	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 5.8%	
12	TYPE OF REPORTING PERSON (See Instructions) OO	

Item 1. (a) Name of Issuer:

Ziopharm Oncology, Inc.

(b) Address of Issuer's Principal Executive Offices:

PO Box 5350
Princeton, New Jersey 08543-5350

Item 2. (a) Name of Person Filing:

Merlin BioMed Private Equity Advisors, LLC
Dominique Sémon

(b) Address of Principal Business Office or, if none, Residence:

230 Park Avenue, Suite 928
New York, New York 10169

(c) Citizenship:

Merlin BioMed Private Equity Advisors, LLC is a Delaware Limited Liability Company.
Dominique Sémon is a citizen of Switzerland.

(d) Title of Class of Securities:

Common Stock

(e) CUSIP Number:

98973P101

Item 3. If this statement is being filed pursuant to Rule 13d-1(b) or (c),
or 13d-2(b), check whether the person filing is:

- (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) An investment adviser 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)(ii)(G)
 - (h) A savings association as defined in Section 3(b) of the
Federal Deposit Insurance Act
-

(i) o A 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) o Group, in accordance with 13d-1(b)(1)(ii)(J)

Item 4. Ownership:

(a) Amount Beneficially Owned:	2,419,500*
(b) Percent of Class:	5.8%
(c) Number of Shares as to which such person has:	
(i) Sole power to vote or direct the vote:	0
(ii) Shared power to vote or direct the vote:	2,419,500*
(iii) Sole power to dispose or direct the disposition of:	0
(iv) Shared power to dispose or direct the disposition of:	2,419,500*

*See Attachment A

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:

Various other persons share beneficial ownership of some of the securities whose ownership is reported on this Schedule 13G. No other such person's interest in such securities relates to more than five percent of the class.

Item 7. Identification and Classification of the Subsidiary which Acquired the Security Being Reported on By the Parent Holding Company

N/A

Item 8. Identification and Classification of Members of the Group

See Attachment B

Item 9. Notice of Dissolution of Group

N/A

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.

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.

Merlin BioMed Private Equity Advisors, LLC
By: Dominique Sémon, as Managing Member

/s/ Dominique Sémon

Dominique Sémon

/s/ Dominique Sémon

Dominique Sémon

Date: January 25, 2010

ATTACHMENT A

As of December 31, 2009, Merlin BioMed Private Equity Advisors, LLC (“Merlin”) and Dominique Sémon were the indirect beneficial owners of 2,419,500 shares of Common Stock of Ziopharm Oncology, Inc. (“Common Stock”) for a total beneficial ownership of 5.8% of the outstanding shares of Common Stock. Dominique Sémon is the Managing Member of Merlin.

ATTACHMENT B

Dominique Sémon is the Managing Member of Merlin. Merlin and Dominique Sémon are shown as sharing voting power and dispositive power of the same 2,419,500 shares of Common Stock.

ATTACHMENT C

AGREEMENT OF JOINT FILING

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, the undersigned hereby agree to the joint filing with all other persons signatory below of a statement on Schedule 13G or any amendments thereto, with respect to the Common Stock of Ziopharm Oncology, Inc. and that this Agreement be included as an attachment to such filing.

This Agreement may be executed in any number of counterparts each of which shall be deemed to be an original and all of which together shall be deemed to constitute one and the same Agreement.

IN WITNESS WHEREOF, the undersigned hereby execute this Agreement on the 25th day of January, 2010.

Merlin BioMed Private Equity Advisors, LLC
By: Dominique Sémon, as Managing Member

/s/ Dominique Sémon

Dominique Sémon

/s/ Dominique Sémon
Dominique Sémon