

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

OMB APPROVAL	
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1. Name and Address of Reporting Person* MCINERNEY TIMOTHY			2. Issuer Name and Ticker or Trading Symbol ZIOPHARM ONCOLOGY INC [ZIOP]			5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)		
(Last)	(First)	(Middle)	3. Date of Earliest Transaction (Month/Day/Year) 09/23/2009			6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person		
ONE COVENTRY LANE			4. If Amendment, Date of Original Filed (Month/Day/Year)					
(Street)	HOPEWELL NJ	08525						
(City)	(State)	(Zip)						

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock, \$.001 par value	09/23/2009		A ⁽⁶⁾		30,000	A	\$0	158,205	D	

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date					
Warrants to Purchase Common Stock	\$4.75							09/13/2005	05/31/2012	Common Stock, \$.001 par value	20,767	20,767	D	
Director Stock Option (right to buy)	\$4.31							(1)	07/20/2015	Common Stock, \$.001 par value	15,029	15,029	D	
Director Stock Option (right to buy)	\$5.01							04/26/2006	04/26/2016	Common Stock	15,000	15,000	D	
Warrants to Purchase Common Stock	\$5.09							05/03/2006	05/03/2013	Common Stock, \$.001 par value	80,737	80,737	D	
Director Stock Option (right to buy)	\$6.49							(2)	12/13/2016	Common Stock	15,000	15,000	D	
Warrant	\$5.75							02/23/2007	02/23/2012	Common Stock	35,739	35,739	D	
Stock Option (right to buy)	\$4.85							(3)	06/18/2017	Common Stock	15,000	15,000	D	
Stock Option (right to buy)	\$2.73							(4)	12/12/2017	Common Stock	20,000	20,000	D	
Stock Option (right to buy)	\$0.7							(5)	05/13/2019	Common Stock	15,000	15,000	D	

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)**

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Warrants to purchase common stock	\$2.04							09/15/2009	09/15/2014	Common Stock, \$.001 par value	50,000		50,000	D	
Warrants to purchase common stock	\$2.04							09/15/2009	09/15/2014	Common Stock	40,298		40,298	D	

Explanation of Responses:

1. 7,515 shares vest on 7/20/06 and 7,514 shares vest on 7/20/07.
2. 5,000 shares vest on each of 12/13/07, 12/13/08 and 12/13/09.
3. 5,000 shares vest on each of 6/18/08, 6/18/09 and 6/18/10.
4. 6,667 shares vest on each of 12/12/08 and 12/12/09; 6,666 shares vest on 12/12/10.
5. 5,000 shares vest on each of 12/31/09, 6/30/2010 and 12/31/2010.
6. Grant of restricted stock; restrictions lapse on 9/23/2010.

/s/ Richard E. Bagley, as
attorney-in-fact for Timothy 09/24/2009
McInerney

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.

POWER OF ATTORNEY

For Executing Forms 3, 4 and 5

Know all by these presents, that the undersigned hereby constitutes and appoints Jonathan Lewis and Richard E. Bagley, signing individually, his true and lawful attorneys-in-fact to:

1. Execute for and on behalf of the undersigned Initial Statements of Beneficial Ownership of Securities on Form 3, Statements of Changes of Beneficial Ownership of Securities on Form 4 and Annual Statements of Beneficial Ownership of Securities on Form 5, for the purpose of reporting transactions by the undersigned in securities issued by Ziopharm Oncology, Inc. in accordance with Section 16(a) of the Securities Exchange Act of 1934 and the rules thereunder;

2. Do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete the execution of any such Form 3, 4 or 5 and the timely filing thereof with the United States Securities and Exchange Commission and any other applicable governmental or regulatory authority; and

3. Take any other action of any type whatsoever in connection with the foregoing which in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, 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 discretion.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform all and every act and thing whatsoever requisite, necessary and proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as such attorney-in-fact might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or his substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, in serving in such capacity at the request of the undersigned, are not assuming any of the undersigned's responsibilities to comply with Section 16 of the Securities Exchange Act of 1934.

This Power of Attorney shall remain in full force and effect until the undersigned is no longer required to file Forms 3, 4 and 5 with respect to the undersigned's holdings of and transactions in securities issued by Ziopharm Oncology, Inc., unless earlier revoked by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact.

IN WITNESS WHEREOF, the undersigned has executed this Power of Attorney as of this 29th day of June, 2009.

/s/ Timothy McInerney
(signature)

__Timothy McInerney__
(print name)