

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* <u>CANNON JAMES ANTHONY</u> (Last) (First) (Middle) BBDO 1285 AVENUE OF THE AMERICAS (Street) NEW YORK NY 10019 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>ZIOPHARM ONCOLOGY INC [ZIOP]</u>	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)
	3. Date of Earliest Transaction (Month/Day/Year) 03/31/2010	
	4. If Amendment, Date of Original Filed (Month/Day/Year)	

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	03/31/2010		A ⁽¹⁾		15,000	A	\$0	242,500 ⁽²⁾	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					
Director Stock Option (right to buy)	\$4.31							12/22/2006	12/22/2014	Common Stock, \$.001 par value		15,029	D	
Director Stock Option (right to buy)	\$5.01							04/26/2006	04/26/2016	Common Stock		15,000	D	
Director Stock Option (right to buy)	\$6.49							12/13/2009	12/13/2016	Common Stock		15,000	D	
Director Stock Option (right to buy)	\$4.85							(3)	06/18/2017	Common Stock		15,000	D	
Stock Option (right to buy)	\$2.73							(4)	12/12/2017	Common Stock		20,000	D	
Stock Option (right to buy)	\$0.7							(5)	05/13/2019	Common Stock		15,000	D	
Warrants to Purchase common stock	\$4.02							12/09/2009	12/09/2014	Common Stock		87,500	D	
Stock Option (right to buy)	\$2.85							(6)	12/31/2019	Common Stock, \$.001 par value		7,500	D	
Stock Option (right to buy)	\$5.09	03/31/2010		A		15,000		03/31/2011	03/31/2020	Common Stock, \$.001 par value	\$0	15,000	D	

Explanation of Responses:

1. Grant of restricted stock; restrictions lapse on the anniversary of the date of grant.
2. In addition to the current grant, includes a prior grant of restricted stock with restrictions that will lapse as to 3,750 shares on each of December 31, 2010 and December 31, 2011.
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. 3,750 shares vest on each of 12/31/2010 and 12/31/2011.

/s/ James A. Cannon

04/01/2010

** 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.

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