

Cole Douglas G.
Form 4
December 27, 2010

FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

OMB APPROVAL

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
Cole Douglas G.

2. Issuer Name and Ticker or Trading Symbol
AVEO PHARMACEUTICALS INC
[AVEO]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)

3. Date of Earliest Transaction
(Month/Day/Year)

Director 10% Owner
 Officer (give title below) Other (specify below)

C/O AVEO PHARMACEUTICALS, INC., 75 SIDNEY STREET

12/23/2010

(Street)

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)

Form filed by One Reporting Person
 Form filed by More than One Reporting Person

CAMBRIDGE, MA 02139

(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 Ownership (Instr. 4)		
				(A) or (D)	Price				
				Code	V	Amount			
Common Stock	12/23/2010		S ⁽¹⁾	272	D	\$ 14.6014 (2)	37,012	I	By AGTC Advisors Fund, L.P. (3)
Common Stock	12/23/2010		S ⁽⁴⁾	4,493	D	\$ 14.6014 (2)	661,958	I	by Applied Genomics Technology Capital Fund, L.P. (5)
	12/27/2010		S ⁽¹⁾	524	D		36,488	I	

Explanation of Responses:

* 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).

(1) The sale reported in this Form 4 was effected pursuant to a Rule 10b5-1 trading plan adopted by AGTC Advisors Fund, L.P. on November 9, 2010.

(2) The price reported in this Column 4 is a weighted average price. The shares were sold in multiple transactions at prices ranging from \$14.44 to \$14.85, inclusive. The reporting person undertakes to provide AVEO Pharmaceuticals, Inc., any security holder of AVEO Pharmaceuticals, Inc., or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each price within the ranges set forth in this footnote.

(3) Held by AGTC Advisors Fund, L.P.; NewcoGen Group, Inc. ("NewcoGen Inc.") is the general partner of AGTC Partners, L.P., which is the general partner of AGTC Advisors Fund, L.P. NewcoGen Inc. is a wholly-owned subsidiary of Flagship Ventures Management, Inc. ("Flagship Inc."). Noubar B. Afeyan Ph.D. and Edwin M. Kania, Jr. are the directors of Flagship Inc. and may be deemed to have beneficial ownership with respect to all shares held by AGTC Advisors Fund, L.P. The reporting person disclaims beneficial ownership over shares held by AGTC Advisors Fund, L.P.

(4) The sale reported in this Form 4 was effected pursuant to a Rule 10b5-1 trading plan adopted by Applied Genomic Technology Capital Fund, L.P. on November 9, 2010.

(5) Held by Applied Genomic Technology Captital Fund, L.P.; NewcoGen Inc. is the general partner of AGTC Partners, L.P., which is the general partner of Applied Genomic Technology Captital Fund, L.P. NewcoGen Inc. is a wholly-owned subsidiary of Flagship Inc. Noubar B. Afeyan Ph.D. and Edwin M. Kania, Jr. are the directors of Flagship Inc. and may be deemed to have beneficial ownership with respect to all shares held by Applied Genomic Technology Captital Fund, L.P. The reporting person disclaims beneficial ownership over shares held by Applied Genomic Technology Captital Fund, L.P.

(6) The price reported in this Column 4 is a weighted average price. The shares were sold in multiple transactions at prices ranging from \$14.38 to \$14.68 inclusive. The reporting person undertakes to provide AVEO Pharmaceuticals, Inc., any security holder of AVEO Pharmaceuticals, Inc., or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each price within the ranges set forth in this footnote.

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

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