

**INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES**

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

<b>1. Name and Address of Reporting Person *</b> <u>EVNIN ANTHONY B</u> <hr/> (Last) (First) (Middle) C/O VENROCK 530 FIFTH AVENUE, 22ND FLOOR <hr/> (Street) NEW YORK NY 10036 <hr/> (City) (State) (Zip)	<b>2. Date of Event Requiring Statement</b> (Month/Day/Year) 03/11/2010	<b>3. Issuer Name and Ticker or Trading Symbol</b> <u>AVEO PHARMACEUTICALS INC [ AVEO ]</u>	
		<b>4. Relationship of Reporting Person(s) to Issuer</b> (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)	<b>5. If Amendment, Date of Original Filed</b> (Month/Day/Year) <hr/> <b>6. Individual or Joint/Group Filing</b> (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person

**Table I - Non-Derivative Securities Beneficially Owned**

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
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**Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			
Series A Convertible Preferred Stock	(1)	(1)	Common Stock	725,924	(1)	I	By Funds <sup>(2)</sup>
Series B Convertible Preferred Stock	(3)	(3)	Common Stock	720,521	(3)	I	By Funds <sup>(4)</sup>
Series D Convertible Preferred Stock	(5)	(5)	Common Stock	200,514	(5)	I	By Funds <sup>(6)</sup>
Stock Option (right to buy)	(7)	06/16/2019	Common Stock	10,000 <sup>(8)</sup>	8.72 <sup>(9)</sup>	I	By management company <sup>(10)</sup>

**Explanation of Responses:**

- The shares of the Issuer's Series A Convertible Preferred Stock (the "Series A Shares") are convertible at any time, at the holder's election, on a one-for-one basis and have no expiration date.
- Consists of 130,666 Series A Shares held by Venrock Associates ("VA"), 580,740 Series A Shares held by Venrock Associates III, L.P. ("VA3") and 14,518 Series A Shares held by Venrock Entrepreneurs Fund III, L.P. ("VEF3"). Dr. Evnin is a general partner of VA. Venrock Management III, LLC ("VM3") is the sole general partner of VA3. VEF Management III, LLC ("VEFM3") is the sole general partner of VEF3. Dr. Evnin is a member of VM3 and VEFM3. Dr. Evnin expressly disclaims beneficial ownership over all shares held by VA, VA3, VEF3, VM3 and VEFM3, except to the extent of his indirect pecuniary interest therein. VM3 and VEFM3 expressly disclaim beneficial ownership over all shares held by VA3 and VEF3, except to the extent of their indirect pecuniary interest therein.
- The shares of the Issuer's Series B Convertible Preferred Stock (the "Series B Shares") are convertible at any time, at the holder's election, on a one-for-one basis and have no expiration date.
- Consists of 129,694 Series B Shares held by VA, 576,417 Series B Shares held by VA3 and 14,410 Series B Shares held by VEF3. Dr. Evnin expressly disclaims beneficial ownership over all shares held by VA, VA3, VEF3, VM3 and VEFM3, except to the extent of his indirect pecuniary interest therein. VM3 and VEFM3 expressly disclaim beneficial ownership over all shares held by VA3 and VEF3, except to the extent of their indirect pecuniary interest therein.
- The shares of the Issuer's Series D Convertible Preferred Stock (the "Series D Shares") are convertible at any time, at the holder's election, on a one-for-one basis and have no expiration date.
- Consists of 36,092 Series D Shares held by VA, 160,412 Series D Shares held by VA3 and 4,010 Series D Shares held by VEF3. Dr. Evnin expressly disclaims beneficial ownership over all shares held by VA, VA3, VEF3, VM3 and VEFM3, except to the extent of his indirect pecuniary interest therein. VM3 and VEFM3 expressly disclaim beneficial ownership over all shares held by VA3 and VEF3, except to the extent of their indirect pecuniary interest therein.
- The Stock Option vests in twelve equal monthly installments, with the first 1/12th vesting on July 31, 2009.
- The number of shares underlying the Stock Option reflects a one-for-four reverse stock split of the Issuer's common stock on February 18, 2010.
- The exercise price of the Stock Option reflects a one-for-four reverse stock split of the Issuer's common stock on February 18, 2010.
- The Stock Option held by Dr. Evnin, and shares of the Issuer's common stock issuable upon exercise of such Stock Option, are held for the sole and exclusive benefit of VR Management, LLC, a Delaware limited liability company and an affiliate of VA, VA3, VEF3, VM3 and VEFM3. Dr. Evnin expressly disclaims beneficial ownership over such Stock Option and all shares of the Issuer's common stock issuable thereunder.

**Remarks:**

/s/ Anthony B. Evnin 03/11/2010  
 \*\* 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 5 (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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