FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL

3235-0287 OMB Number: Estimated average burden hours per response: 0.5

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

							. ,				ompany Act							
1. Name and Address of Reporting Person* MUELLER PETER						2. Issuer Name and Ticker or Trading Symbol VERTEX PHARMACEUTICALS INC / MA [VRTX]								(Check all applicable) Director			109	o Issuer 6 Owner er (specify
(Last) (First) (Middle) C/O VERTEX PHARMACEUTICALS INCORPORATED						3. Date of Earliest Transaction (Month/Day/Year) 01/26/2010								X	belov	w) ``	bel	ow) i
130 WAVERLY STREET						4. If Amendment, Date of Original Filed (Month/Day/Year)								6. Individual or Joint/Group Filing (Check Applicable				
(Street) CAMBRIDGE MA 02139 (City) (State) (Zip)					-									X	Forn	n filed by Mor		
	(State)			on-Deriv	/ative	Sec	uritio	s Ac	auire	d Di	enosed o	f or B	enefici	ally ()wna			
1. Title of Security (Instr. 3) 2. Transaction Date				ion	n 2A. Deemed Execution Da			3. Transa	ction	4. Securities Acquired (A) or			5. Amount of Securities Beneficially Owned Follo Reported		ount of ities icially d Following	Form: Direc	of Indirect	
									Code	٧	Amount	(A) or (D)	Price					ļ
Common Stock 01/2				01/26/2	010	10					2,026	D	\$39.39	(2)(3)	1	14,848	D	
Common Stock															3,882	I	401(k)	
		Tal	ble II												vned			
Perivative Conversion Date			e Execut onth/Day/Year) if any			(Instr. Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		rative rities ired rosed	Expira (Monti	ition Di	ate	Amoun		Deriv	ative rity	tive derivative Securities Beneficially Owned Following Reported	Ownersh Form: Direct (D or Indire (I) (Instr.	Beneficial Ownership ct (Instr. 4)
	ETEX PHORATEI PERTY S IDGE Security (In Stock	(First) RTEX PHARMACE ORATED /ERLY STREET IDGE MA (State) Security (Instr. 3) Stock Stock 2. Conversion or Exercise Price of Derivative (Month/D Derivative)	(First) (NATEX PHARMACEUTICAL ORATED / CRLY STREET IDGE MA (State) (Z Table Security (Instr. 3) Stock Stock Tal 2. Conversion or Exercise Price of Derivative (Month/Day/Year)	(First) (Middle) RTEX PHARMACEUTICALS ORATED /ERLY STREET IDGE MA 02139 (State) (Zip) Table I - N Security (Instr. 3) Stock Stock Table II 2. Conversion or Exercise Price of Derivative (Month/Day/Year) Price of Derivative (Month/Day/Year) (Month/Day/Year) (Middle) (Alichard Street Control of Conversion (Month/Day/Year) (Month/Day/Year) (Month/Day/Year)	(First) (Middle) RTEX PHARMACEUTICALS ORATED /ERLY STREET IDGE MA 02139 (State) (Zip) Table I - Non-Deriv Security (Instr. 3) Stock Table II - Derivate (Month/Day (e.g., p) 2. Table II - Derivate (e.g., p) Conversion or Exercise Price of Derivative (Month/Day/Year) 2. (Month/Day/Year)	(First) (Middle) RTEX PHARMACEUTICALS ORATED //ERLY STREET IDGE MA 02139 (State) (Zip) Table I - Non-Derivative Security (Instr. 3) 2. Transaction Date (Month/Day/Year) Stock Table II - Derivative S (e.g., puts, c) 2. Question Date (month/Day/Year) 3. Transaction Date (month/Day/Year) 3. Transaction Date (month/Day/Year) 3. Transaction Date (month/Day/Year) 4. Transaction Date (month/Day/Year) (month/Day/Year) 4. Transaction Date (month/Day/Year) (month/Day/Year) 8)	Conversion or Exercise Price of Derivative Security Stock Stock	VERTEX P MA VRTX	Conversion or Exercise Price of Derivative Security Security	VERTEX PHARMACEUTICALS	VERTEX PHARMACEU (First) (Middle) RTEX PHARMACEUTICALS ORATED VERLY STREET Table I - Non-Derivative Securities Acquired, Diate (Month/Day/Year) Security (Instr. 3) Table II - Derivative Securities Acquired, Diate (Month/Day/Year) Stock Table II - Derivative Securities Acquired, Diate (e.g., puts, calls, warrants, options, of Derivative Security A. If Amendment, Date of Original File 2. Transaction Date (Month/Day/Year) (Month/Day/Year) (e.g., puts, calls, warrants, options, of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) Date Date	Conversion Stock Conversion Conversi	VERTEX PHARMACEUTICALS VERTEX PHARMACEUTICALS INC MA VRTX	Conversion of Execurity Conversion of Execution Date, if any (Month/Day/Year) Conversion of Execution Date, if any (Month/Day/Year)	Check Circle Conversion of Executity Code Conversion of Executive Code Code Conversion of Executive Code Conversion of Executive Code Code	Check all applied Chec	VERTEX PHARMACEUTICALS Check all applicable Director X Officer (give title below) EVP, Globa	VERTEX PHARMACEUTICALS VERTEX PHARMACEUTIC

Explanation of Responses:

- 1. Transaction made pursuant to Dr. Mueller's company approved trading plan establishded under Rule 10b5-1.
- 2. Open market sales reported on this line occurred at a weighted average price of \$39.39 (range \$39.15 to \$39.62).
- 3. Dr. Mueller undertakes to provide (upon request by the SEC staff, the issuer or a security holder of the issuer) full information regarding the number of shares sold at each separate price.

Remarks:

Kenneth S. Boger, Attorney-In-01/27/2010 **Fact**

** 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.