

FORM 4**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549



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

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

OMB APPROVAL

OMB Number: 3235-0287
Expires: February 28, 2011
Estimated average burden hours per response 0.5

1. Name and Address of Reporting Person* <u>Aberman Zami 0001344740</u> <hr/> <div style="display: flex; justify-content: space-between;"> (Last) (First) (Middle) </div> <u>46 HATAPUZ ST.</u> <hr/> <div style="display: flex; justify-content: space-between;"> (Street) </div> <u>TELMOND L3 40600</u> <hr/> <div style="display: flex; justify-content: space-between;"> (City) (State) (Zip) </div>	2. Issuer Name and Ticker or Trading Symbol <u>PLURISTEM THERAPEUTICS INC [PSTI]</u> <hr/> 3. Date of Earliest Transaction (Month/Day/Year) <u>01/18/2011</u> <hr/> 4. If Amendment, Date of Original Filed (Month/Day/Year) 	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> Director 10% Owner </div> <div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) </div> <p style="text-align: center;"><u>CEO & Chairman</u></p> <hr/> 6. Individual or Joint/Group Filing (Check Applicable Line) <div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> Form filed by One Reporting Person </div> <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Form filed by More than One Reporting Person </div>
---	---	--

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	01/18/2011	01/19/2011	S ⁽¹⁾		25,000	D	\$3.2	849,151	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		Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
						(A)	(D)							

Explanation of Responses:

1. The sales reported on this Form 4 were effected pursuant to automatic selling under Rule 10b5-1 trading plan adopted by the reporting person on June 10, 2010.

Remarks:

/s/ Zami Aberman

** Signature of Reporting Person

01/19/2011

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.

FORM 4**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

OMB APPROVAL

OMB Number: 3235-0287
 Expires: February 28, 2011
 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).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

1. Name and Address of Reporting Person* YANAY YAKY 0001402539 <hr/> (Last) (First) (Middle) ARGAMAN 14 <hr/> (Street) SHIMSHIT L3 17906 <hr/> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol PLURISTEM THERAPEUTICS INC [PSTI] <hr/> 3. Date of Earliest Transaction (Month/Day/Year) 01/18/2011 <hr/> 4. If Amendment, Date of Original Filed (Month/Day/Year)	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner X Officer (give title below) Other (specify below) Chief Financial Officer <hr/> 6. Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person
---	---	---

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	01/18/2011	01/19/2011	S ⁽¹⁾		15,000	D	\$3.2	386,543	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				

Explanation of Responses:

1. The sales reported on this Form 4 were effected pursuant to automatic selling under Rule 10b5-1 trading plan adopted by the reporting person on June 10, 2010.

Remarks:

/s/ Yaky Yanay

** Signature of Reporting Person

01/19/2011

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.