

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

1. Name and Address of Reporting Person* BEN-YORAM ISRAEL 0001320556	2. Issuer Name PLURISTEM THERAPEUTICS INC [PSTI]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner <input type="checkbox"/> Officer (give title below) Other (specify below)
(Last) (First) (Middle) 24 BARKAN STREET	3. Date of Earliest Transaction (Month/Day/Year) 01/07/2014	
(Street) RISHON LEZION L3 75436	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person
(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 Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)			
Common Stock	01/07/2014 ⁽¹⁾		S		21,250	D	\$4.09	400,431	I
Common Stock	01/07/2014 ⁽¹⁾		S		14,375	D	\$4.09	386,056	D
Common Stock	01/08/2014 ⁽¹⁾		S		9,172	D	\$4.25	376,884	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					

Explanation of Responses:

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

Remarks:

/s/ Israel Ben-Yoram

** Signature of Reporting Person

01/09/2014

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.