

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

Form 10-Q

(Mark One)

QUARTERLY REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended **December 31, 2012**

TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE EXCHANGE ACT

For the transition period from _____ to _____

Commission file number **001-31392**

PLURISTEM THERAPEUTICS INC.

(Exact name of registrant as specified in its charter)

Nevada

(State or other jurisdiction of incorporation or organization)

98-0351734

(IRS Employer Identification No.)

MATAM Advanced Technology Park, Building No. 20, Haifa, Israel 31905

(Address of principal executive offices)

+972-74-710-7171

(Registrant's telephone number)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registration was required to submit and post such files).

Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

State the number of shares outstanding of each of the issuer's classes of common stock as of the latest practicable date: 58,333,206 shares of common stock issued and outstanding as of January 25, 2013.

PART I - FINANCIAL INFORMATION

Item 1. Financial Statements.

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY

CONSOLIDATED FINANCIAL STATEMENTS

As of December 31, 2012

(unaudited)

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
CONSOLIDATED FINANCIAL STATEMENTS

As of December 31, 2012

U.S. DOLLARS IN THOUSANDS

(Unaudited)

INDEX

	<u>Page</u>
Consolidated Balance Sheets	F - 2 - F - 3
Consolidated Statements of Operations	F - 4
Consolidated Statements of Comprehensive Income (Loss)	F - 5
Statements of Changes in Equity	F - 6 - F - 7
Consolidated Statements of Cash Flows	F - 8 - F - 9
Notes to Consolidated Financial Statements	F - 10 - F - 18

CONSOLIDATED BALANCE SHEETS

U.S. Dollars in thousands

	Note	December 31, 2012 Unaudited	June 30, 2012 Audited
ASSETS			
CURRENT ASSETS:			
Cash and cash equivalents		\$ 23,548	\$ 9,389
Short term bank deposits		32,143	21,397
Marketable securities	3	8,882	7,023
Other accounts receivable and prepaid expenses		1,699	383
<u>Total current assets</u>		<u>66,272</u>	<u>38,192</u>
LONG-TERM ASSETS:			
Long-term deposits and restricted deposits		756	1,287
Advance payment for leasehold improvements		1,305	2,400
Property and equipment, net		10,026	5,019
Severance pay fund		702	522
Other long term assets		59	-
<u>Total long-term assets</u>		<u>12,848</u>	<u>9,228</u>
<u>Total assets</u>		<u>\$ 79,120</u>	<u>\$ 47,420</u>

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED BALANCE SHEETS

U.S. Dollars in thousands

	Note	December 31, 2012 Unaudited	June 30, 2012 Audited
LIABILITIES AND STOCKHOLDERS' EQUITY			
CURRENT LIABILITIES			
Trade payables		\$ 3,397	\$ 1,368
Accrued expenses		426	922
Deferred revenues		779	779
Advance payment from United Therapeutics		599	1,576
Other accounts payable		925	877
Total current liabilities		<u>6,126</u>	<u>5,522</u>
LONG-TERM LIABILITIES			
Deferred revenues		3,116	3,505
Accrued severance pay		834	651
Total long term liabilities		<u>3,950</u>	<u>4,156</u>
COMMITMENTS AND CONTINGENCIES	5		
STOCKHOLDERS' EQUITY			
Share capital:	6		
Common stock \$0.00001 par value:			
Authorized: 100,000,000 shares			
Issued and outstanding: 58,331,956 shares as of			
December 31, 2012, 46,448,051 shares as of June 30, 2012		(*)	(*)
Additional paid-in capital		142,912	103,619
Accumulated deficit		(74,232)	(65,747)
Other comprehensive gain (loss)		364	(130)
		<u>69,044</u>	<u>37,742</u>
		<u>\$ 79,120</u>	<u>\$ 47,420</u>

(*) Less than \$1.

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF OPERATIONS

U.S. Dollars in thousands (except share and per share data)

	Six months ended December 31,		Three months ended December 31,	
	2012	2011	2012	2011
	Unaudited	Unaudited	Unaudited	Unaudited
Revenues	\$ 390	\$ 385	\$ 195	\$ 231
Cost of revenues	(12)	(12)	(6)	(7)
Gross profit	378	373	189	224
Research and development expenses	(7,894)	(5,832)	(4,146)	(2,969)
Less participation by the Office of the Chief Scientist and other parties	1,543	1,921	493	1,902
Research and development expenses, net	(6,351)	(3,911)	(3,653)	(1,067)
General and administrative expenses	(3,101)	(2,912)	(1,420)	(1,275)
Operating loss	(9,074)	(6,450)	(4,884)	(2,118)
Financial (expenses) income, net	589	(35)	394	126
Net loss for the period	<u>\$ (8,485)</u>	<u>\$ (6,485)</u>	<u>\$ (4,490)</u>	<u>\$ (1,992)</u>
Loss per share:				
Basic and diluted net loss per share	<u>\$ (0.16)</u>	<u>\$ (0.15)</u>	<u>\$ (0.08)</u>	<u>\$ (0.05)</u>
Weighted average number of shares used in computing basic and diluted net loss per share	<u>52,659,430</u>	<u>43,225,017</u>	<u>57,512,930</u>	<u>43,669,466</u>

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

U.S. Dollars in thousands

	Six months ended December 31,		Three months ended December 31,	
	2012	2011	2012	2011
	Unaudited	Unaudited	Unaudited	Unaudited
Net loss	\$ (8,485)	\$ (6,485)	\$ (4,490)	\$ (1,992)
Other comprehensive income, net of tax:				
Unrealized gain (loss) on available for sale marketable securities	494	(134)	265	(135)
Total comprehensive loss	\$ (7,991)	\$ (6,619)	\$ (4,225)	\$ (2,127)

The accompanying notes are an integral part of the consolidated financial statements.

STATEMENTS OF CHANGES IN EQUITY (UNAUDITED)

U.S. Dollars in thousands (except share and per share data)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance as of July 1, 2011	42,443,185	\$ (*)	\$ 94,375	\$ -	\$ (50,953)	\$ 43,422
Exercise of options by employees and consultants	23,000	(*)	14	-	-	14
Exercise of warrants by investors and finders	283,266	(*)	371	-	-	371
Stock based compensation to employees, directors and non-employee consultants	1,367,593	(*)	3,164	-	-	3,164
Unrealized loss on available for sale marketable securities	-	-	-	(134)	-	(134)
Net loss for the period	-	-	-	-	(6,485)	(6,485)
Balance as of December 31, 2011	<u>44,117,044</u>	<u>\$ (*)</u>	<u>\$ 97,924</u>	<u>\$ (134)</u>	<u>\$ (57,438)</u>	<u>\$ 40,352</u>

(*) Less than \$1.

The accompanying notes are an integral part of the consolidated financial statements.

STATEMENTS OF CHANGES IN EQUITY (UNAUDITED)

U.S. Dollars in thousands (except share and per share data)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance as of July 1, 2012	46,448,051	\$ (*)	\$ 103,619	\$ (130)	\$ (65,747)	\$ 37,742
Issuance of common stock and warrants related to September 2012 public offering, net of issuance costs of \$2,694	9,200,000	(*)	34,106	-	-	34,106
Exercise of options by employees and consultants	101,832	(*)	146	-	-	146
Exercise of warrants by investors and finders	1,473,670	(*)	1,679	-	-	1,679
Stock based compensation to employees, directors and non-employee consultants	1,108,403	(*)	1,962	-	-	1,962
Stock based compensation to contractor	-	-	1,400	-	-	1,400
Unrealized gain on available for sale marketable securities	-	-	-	494	-	494
Net loss for the period	-	-	-	-	(8,485)	(8,485)
Balance as of December 31, 2012	58,331,956	\$ (*)	\$ 142,912	\$ 364	\$ (74,232)	\$ 69,044

(*) Less than \$1

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

U.S. Dollars in thousands

	Six months ended December 31,	
	2012	2011
	Unaudited	Unaudited
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	\$ (8,485)	\$ (6,485)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	276	199
Stock-based compensation to employees, directors and non-employee consultants	1,684	1,904
Stock compensation to investor relations consultants	278	-
Increase in other accounts receivable	(808)	(1,960)
Decrease (increase) in prepaid expenses	(577)	97
Decrease (increase) in trade payables	2,179	(1)
Increase (decrease) in other accounts payable and accrued expenses	(48)	112
Increase (decrease) in deferred revenues	(389)	4,615
Increase (decrease) in advance payment from United Therapeutics	(977)	1,926
Linkage differences and increase (decrease) interest on short and long-term deposit and restricted lease deposit	(102)	(213)
Accretion of discount, amortization of premium and changes in accrued interest from marketable securities	53	(33)
Loss from sale of investments of available for sale marketable securities	23	-
Accrued severance pay, net	3	13
Net cash used in (provided by) operating activities	\$ (6,890)	\$ 174
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of property and equipment	\$ (3,338)	\$ (996)
Investment in short-term deposits	(10,646)	(30,273)
Investment (repayment) in long-term deposits	521	(1,011)
Repayment of long-term restricted deposit	9	2
Proceeds from sale and redemption of available for sale marketable securities	763	50
Investment in available for sale marketable securities	(2,204)	(4,503)
Net cash used in investing activities	\$ (14,895)	\$ (36,731)

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

U.S. Dollars in thousands

	Six months ended December 31,	
	2012	2011
	Unaudited	Unaudited
CASH FLOWS FROM FINANCING ACTIVITIES:		
Issuance of common stock and warrants, net of issuance costs	\$ 34,106	\$ -
Exercise of warrants and options	1,838	400
Net cash provided by financing activities	<u>\$ 35,944</u>	<u>\$ 400</u>
Increase (decrease) in cash and cash equivalents	14,159	(36,157)
Cash and cash equivalents at the beginning of the period	9,389	42,829
Cash and cash equivalents at the end of the period	<u>\$ 23,548</u>	<u>\$ 6,672</u>
(a) Supplemental disclosure of cash flow activities:		
Cash paid during the period for:		
Taxes paid due to non-deductible expenses	<u>\$ 3</u>	<u>\$ 10</u>
(b) Supplemental disclosure of non-cash activities:		
Purchase of property and equipment on credit	<u>\$ 588</u>	<u>\$ 121</u>
Stock based compensation to contractor	<u>\$ 1,400</u>	<u>\$ 1,245</u>

The accompanying notes are an integral part of the consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. Dollars in thousands (except per share amounts)

NOTE 1:-GENERAL

- a. Pluristem Therapeutics Inc., a Nevada corporation, was incorporated on May 11, 2001. Pluristem Therapeutics Inc. has a wholly owned subsidiary, Pluristem Ltd. (the "Subsidiary"), which is incorporated under the laws of the State of Israel. Pluristem Therapeutics Inc. and the Subsidiary are referred to as the "Company".
- b. The Company is a bio-therapeutics company developing standardized cell therapy products from human placenta for the treatment of multiple disorders. The Company has sustained operating losses and expects such losses to continue in the foreseeable future. The Company's accumulated losses aggregated to \$74,232 through December 31, 2012 and the Company incurred a net loss of \$8,485 for the six months ended December 31, 2012. There is no assurance that profitable operations, if ever achieved, could be sustained on a continuing basis.

The Company plans to continue to finance its operations with sales of equity securities, entering into licensing technology agreements such as the United Therapeutics Corporation ("United Therapeutics") agreement, and from grants to support its R&D activity. In the longer term, the Company plans to finance its operations from revenues from sales of products.

NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES**a. Unaudited Interim Financial Information**

The accompanying unaudited interim condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all the information and footnotes required by generally accepted accounting principles for complete financial statements. In the opinion of management, all adjustments considered necessary for a fair presentation have been included (consisting only of normal recurring adjustments except as otherwise discussed). Certain items in the prior period's comparative consolidated financial statements have been reclassified to conform to the current period's presentation. Royalties to the OCS in the amount of \$12 was reclassified from R&D expenses to cost of revenues. This reclassification did not impact total assets, total liabilities, stockholders' equity, and results of operations or cash flows.

Operating results for the six months ended December 31, 2012 are not necessarily indicative of the results that may be expected for the year ending June 30, 2013. For further information, reference is made to the consolidated financial statements and footnotes thereto included in the Company's Annual Report on Form 10-K for the year ended June 30, 2012.

b. Fair value of financial instruments:

The carrying amounts of the Company's financial instruments, including cash and cash equivalents, available-for-sale marketable securities, short-term deposits, trade payable and other accounts payable and accrued liabilities, approximate fair value because of their generally short term maturities.

The Company accounts for certain assets and liabilities at fair value under ASC 820, "Fair Value Measurements and Disclosures." Fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. As a basis for considering such assumptions, ASC 820 establishes a three-tier value hierarchy, which prioritizes the inputs used in the valuation methodologies in measuring fair value:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. Dollars in thousands (except per share amounts)

NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (CONT.)**b. Fair value of financial instruments (cont.)**

Level 1 - Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets;

Level 2 - Includes other inputs that are directly or indirectly observable in the marketplace, other than quoted prices included in Level 1, such as quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets with insufficient volume or infrequent transactions, or other inputs that are observable (model-derived valuations in which significant inputs are observable), or can be derived principally from or corroborated by observable market data; and

Level 3 - Unobservable inputs which are supported by little or no market activity.

The fair value hierarchy also requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The Company categorized each of its fair value measurements in one of these three levels of hierarchy.

c. Derivative financial instruments

The Company's derivatives are not designated as hedging accounting instruments under ASC 815, "Derivatives and Hedging". Those derivatives consist primarily of forward and options contracts the Company uses to hedge the Company's exposures to currencies other than the U.S. dollar. The Company recognized derivative instruments as either assets or liabilities and measures those instruments at fair value. Since the derivative instruments that the Company holds do not meet the definition of hedging instruments under ASC 815, the Company recognizes changes in the fair values in its statement of income in financial income, net, in the same period as the re-measurement gain and loss of the related foreign currency denominated assets and liabilities.

The fair value of the forward and options contracts as of December 31, 2012 and June 30, 2012 were recorded as an asset of \$204 and liability of \$138, respectively.

d. Impact of recently issued accounting standards:

In May 2011, the FASB issued changes to the manner in which entities present comprehensive income in their financial statements. The new guidance requires entities to report components of comprehensive income in either (1) a continuous statement of comprehensive income or (2) two separate but consecutive statements. The new guidance does not change the items that must be reported in other comprehensive income. In December 2011, the FASB deferred the requirement that companies present reclassification adjustments for each component of accumulated other comprehensive income in both net income and other comprehensive income on the face of the financial statements. The new reporting requirement is effective for fiscal years and interim reporting periods within those years beginning after December 15, 2011, with early adoption permitted. The Company adopted the accounting pronouncement as of July 1, 2012, and the effect on the Company's consolidated financial statements was to present activity impacting net income and other comprehensive loss in two consecutive statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. Dollars in thousands (except per share amounts)

NOTE 3:- MARKETABLE SECURITIES

As of December 31, 2012, all of the Company's marketable securities were classified as available-for-sale.

	December 31, 2012				June 30, 2012			
	Amortized cost	Gross unrealized gain	Gross unrealized loss	Fair value	Amortized cost	Gross unrealized gain	Gross unrealized loss	Fair value
Available-for-sale - matures within one year:								
Stock and index linked notes	\$ 1,366	\$ 115	\$ (26)	\$ 1,455	\$ 1,264	\$ 57	\$ (56)	\$ 1,265
Government debentures – fixed interest rate	380	14	(3)	391	57	-	-	57
Corporate debentures – fixed interest rate	446	13	(22)	437	303	2	(2)	303
	<u>\$ 2,192</u>	<u>\$ 142</u>	<u>\$ (51)</u>	<u>\$ 2,283</u>	<u>\$ 1,624</u>	<u>\$ 59</u>	<u>\$ (58)</u>	<u>\$ 1,625</u>
Available-for-sale - matures after one year through five years:								
Government debentures – fixed interest rate	1,025	43	-	1,068	1,417	12	(42)	1,387
Corporate debentures – fixed interest rate	4,035	166	(2)	4,199	2,829	20	(57)	2,792
	<u>\$ 5,060</u>	<u>\$ 209</u>	<u>\$ (2)</u>	<u>\$ 5,267</u>	<u>\$ 4,246</u>	<u>\$ 32</u>	<u>\$ (99)</u>	<u>\$ 4,179</u>
Available-for-sale - matures after five years through ten years:								
Government debentures – fixed interest rate	839	39	-	878	467	-	(23)	444
Corporate debentures – fixed interest rate	427	27	-	454	816	3	(44)	775
	<u>\$ 1,266</u>	<u>\$ 66</u>	<u>\$ -</u>	<u>\$ 1,332</u>	<u>\$ 1,283</u>	<u>\$ 3</u>	<u>\$ (67)</u>	<u>\$ 1,219</u>
	<u>\$ 8,518</u>	<u>\$ 417</u>	<u>\$ (53)</u>	<u>\$ 8,882</u>	<u>\$ 7,153</u>	<u>\$ 94</u>	<u>\$ (224)</u>	<u>\$ 7,023</u>

The following table presents gross unrealized losses and fair values for those investments that were in an unrealized loss position as of December 31, 2012 and June 30, 2012, and the length of time that those investments have been in a continuous loss position:

	Less than 12 months		12 months or greater	
	Fair Value	Gross unrealized loss	Fair Value	Gross unrealized loss
As of December 31, 2012	\$ 164	\$ (4)	\$ 51	\$ (12)
As of June 30, 2012	\$ 897	\$ (51)	\$ -	\$ -

The Company typically invests in highly-rated securities. When evaluating the investments for other-than-temporary impairment, the Company reviews factors such as the length of time and extent to which fair value has been below cost basis, the financial condition of the issuer and any changes thereto, and the Company's intent to sell, or whether it is more likely than not it will be required to sell, the investment before recovery of the investment's amortized cost basis. Based on the above factors, the Company concluded that unrealized losses on all available-for-sale securities were not other-than-temporary and no credit loss was present for any of its investments. As such, the Company did not recognize any impairment charges on outstanding securities during the six months ended December 31, 2012.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. Dollars in thousands (except per share amounts)

NOTE 4:- FAIR VALUE OF FINANCIAL INSTRUMENTS

	December 31, 2012			June 30, 2012		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Marketable securities	\$ 4,921	\$ 3,961	\$ -	\$ 4,181	\$ 2,842	\$ -
Derivatives	-	204	-	-	(138)	-
Total	\$ 4,921	\$ 4,165	\$ -	\$ 4,181	\$ 2,704	\$ -

NOTE 5: - COMMITMENTS AND CONTINGENCIES

Commitments and contingencies that changed during the six months ended December 31, 2012 include the following:

Decrease in the amount of \$525 of cash pledged by the Company to secure its hedging transactions, credit line and bank guarantees.

NOTE 6: - SHARE CAPITAL AND STOCK OPTIONS

- As part of the agreement for building the new Company's facility with Biopharmax Group Ltd ("Biopharmax"), the Company issued 1,500,000 shares of common stock to Biopharmax during fiscal year 2012. Total consideration from selling the shares amounted to \$5,071.
- From July through December 2012, a total of 718,213 warrants were exercised via a "cashless" manner, resulting in the issuance of 446,423 shares of common stock to investors of the Company. The Company has a commitment to issue additional 75 shares of common stock to one of its shareholders. In addition, 1,027,247 warrants were exercised and resulted in the issuance of 1,027,247 shares of common stock to investors of the Company. The aggregate cash consideration received was \$1,679.
- On September 19, 2012, the Company closed a firm commitment underwritten public offering of 8,000,000 units, at a purchase price of \$4.00 per unit, with each unit consisting of one share of the Company's common stock and one warrant to purchase 0.35 shares of common stock, at a purchase price of \$5.00 per share. The warrants sold in the offering will be exercisable on and after March 19, 2013 and expire on September 19, 2017. The Company has also granted the underwriters a 30-day option to purchase up to 1,200,000 shares of common stock and/or warrants to purchase up to 420,000 shares of common stock. As of September 24, 2012 the underwriters fully exercised their option. The aggregate net proceeds to the Company from the offering, including from the exercise in full of the option, are \$34,106, before the exercise of any warrants (which has not yet occurred) and after deducting underwriting commissions and discounts and offering expenses of the Company.

The warrants can be exercised only for full shares of common stock. As to any fraction of a share which the warrant holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such fraction in an amount equal to such fraction multiplied by the fair market value less the exercise price.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. Dollars in thousands (except per share amounts)

NOTE 6: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)**d. Options, warrants, restricted stock and restricted stock units to employees, directors and consultants:**

1. Options to employees and directors:

The Company has approved two incentive option plans from 2003 and from 2005 (the "2003 Plan" and the "2005 Plan", and collectively, the "Plans").

The Company accounted for its options to employees and directors under the fair value method in accordance with ASC 718, "Compensation — Stock Compensation". A summary of the Company's share option activity for options granted to employees and directors under the Plans is as follows:

	Six months ended December 31, 2012			
	Number	Weighted Average Exercise Price	Weighted Average Remaining Contractual Terms (in years)	Aggregate Intrinsic Value Price
Options outstanding at beginning of period	2,082,172	\$ 3.87		
Options exercised	(74,332)	1.57		
Options outstanding at end of the period	<u>2,007,840</u>	<u>\$ 3.95</u>	<u>4.47</u>	<u>\$ 1,227</u>
Options exercisable at the end of the period	<u>2,007,840</u>	<u>\$ 3.95</u>	<u>4.47</u>	<u>\$ 1,227</u>
Options vested	<u>2,007,840</u>	<u>\$ 3.95</u>	<u>4.47</u>	<u>\$ 1,227</u>

Intrinsic value of exercisable options (the difference between the Company's closing stock price on the last trading day in the period and the exercise price, multiplied by the number of in-the-money options) represents the amount that would have been received by the employees and directors option holders had all option holders exercised their options on December 31, 2012. This amount changes based on the fair market value of the Company's common stock.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. Dollars in thousands (except per share amounts)

NOTE 6: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)**d. Options, warrants, restricted stock and restricted stock units to employees, directors and consultants (cont.):**

2. Options and warrants to non-employees:

A summary of the Company's activity related to options and warrants to consultants is as follows:

	Six months ended December 31, 2012			
	Number	Weighted Average Exercise Price	Weighted Average Remaining Contractual Terms (in years)	Aggregate Intrinsic Value Price
Options and warrants outstanding at beginning of period	382,000	\$ 3.86		
Options and warrants exercised	(63,500)	1.18		
Options and warrants outstanding at end of the period	<u>318,500</u>	<u>\$ 4.40</u>	<u>4.56</u>	<u>\$ 459</u>
Options and warrants exercisable at the end of the period	<u>309,500</u>	<u>\$ 4.52</u>	<u>4.44</u>	<u>\$ 430</u>
Options and warrants vested	<u>318,500</u>	<u>\$ 4.40</u>	<u>4.56</u>	<u>\$ 459</u>

Compensation expenses related to options and warrants granted to consultants were recorded as follows:

	Six months ended December 31,		Three months ended December 31,	
	2012	2011	2012	2011
Research and development expenses	\$ -	\$ 19	\$ -	\$ 9
General and administrative expenses	21	15	3	7
	<u>\$ 21</u>	<u>\$ 34</u>	<u>\$ 3</u>	<u>\$ 16</u>

Future expenses related to options and warrants granted to consultants for an average time of approximately one year is \$8.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. Dollars in thousands (except per share amounts)

NOTE 6: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)**d. Options, warrants, restricted stock and restricted stock units to employees, directors and consultants (cont.):**

3. Restricted stock and restricted stock units to employees and directors:

During the six months ended December 31, 2012, the Company granted restricted stock units to several of the Company's employees.

The following table summarizes the activities for unvested restricted stock units and restricted stock granted to employees and directors for the six months ended December 31, 2012:

	<u>Number</u>
Unvested at the beginning of period	2,085,276
Granted	13,000
Forfeited	(77,963)
Vested	(979,175)
Unvested at the end of the period	<u>1,041,138</u>
Expected to vest after December 31, 2012	<u>1,023,172</u>

Compensation expenses related to restricted stock and restricted stock units granted to employees and directors were recorded as follows:

	<u>Six months ended December 31,</u>		<u>Three months ended December 31,</u>	
	<u>2012</u>	<u>2011</u>	<u>2012</u>	<u>2011</u>
Research and development expenses	\$ 481	\$ 483	\$ 164	\$ 230
General and administrative expenses	1,028	1,290	420	612
	<u>\$ 1,509</u>	<u>\$ 1,773</u>	<u>\$ 584</u>	<u>\$ 842</u>

Future expenses related to restricted stock and restricted stock units granted to employees and directors for an average time of approximately two years is \$840.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. Dollars in thousands (except per share amounts)

NOTE 6: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)**d. Options, warrants, restricted stock and restricted stock units to employees, directors and consultants (cont.):**

4. Restricted stock and restricted stock units to consultants:

During the six months ended December 31, 2012, the Company granted restricted stock units to several consultants and service providers.

The following table summarizes the activities for unvested restricted stock units and restricted stock granted to consultants for the six months ended December 31, 2012:

	<u>Number</u>
Unvested at the beginning of period	66,000
Granted	88,206
Forfeited	(21,978)
Vested	(129,228)
Unvested at the end of the period	<u>3,000</u>
Expected to vest after December 31, 2012	<u>3,000</u>

Compensation expenses related to restricted stock and restricted stock units granted to consultants were recorded as follows:

	<u>Six months ended December 31,</u>		<u>Three months ended December 31,</u>	
	<u>2012</u>	<u>2011</u>	<u>2012</u>	<u>2011</u>
Research and development expenses	\$ 154	\$ 112	\$ 34	\$ 53
General and administrative expenses	278	1	5	1
	<u>\$ 432</u>	<u>\$ 113</u>	<u>\$ 39</u>	<u>\$ 54</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SUBSEQUENT EVENTS

In January 2013, MTM – Scientific Industries Center Haifa Ltd. (“MTM”), the Company’s landlord, agreed to contribute NIS 2,990 toward the cost of constructing the Company’s new facility. Such contribution is being made pursuant to the Company’s lease agreement with MTM, and will be recognized as reductions of rental expenses over the lease term in accordance with ASC 840-20.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Forward - Looking Statements

This quarterly report on Form 10-Q contains certain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and other Federal securities laws, and is subject to the safe-harbor created by such Act and laws. Forward-looking statements may include statements regarding our goals, beliefs, strategies, objectives, plans, including product and technology developments, future financial conditions, results or projections or current expectations. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential" or "continue," the negative of such terms, or other comparable terminology. These statements are subject to known and unknown risks, uncertainties, assumptions and other factors that may cause actual results to be materially different from those contemplated by the forward-looking statements. Such forward-looking statements appear in this Item 2 – "Management's Discussion and Analysis of Financial Condition and Results of Operations," and include, but are not limited to, statements regarding the following:

- the expected development and potential benefits from our products in treating various medical conditions,
- the ability of our PLX cells locally to treat systemic diseases and potentially obviate the need to administer the drugs intravenously,
- our expectations regarding our short and long-term capital requirements and sufficiency of our capital resources,
- our plans to raise additional funding, including non-dilutive funding and governmental grants,
- the success of our plans to develop in house manufacturing capacity of clinical grade PLX cells in commercial quantities and control all of our proprietary manufacturing processes,
- the receipt of the MTM – Scientific Industries Center Haifa Ltd. contribution toward the cost of constructing our new facility,
- the expansion of our relationships with research and clinical institutions as well as collaboration and entering into out-licensing agreements with other companies, and
- information with respect to any other plans and strategies for our business.

Our business and operations are subject to substantial risks, which increase the uncertainty inherent in the forward-looking statements contained in this report. Except as required by law, we undertake no obligation to release publicly the result of any revision to these forward-looking statements that may be made to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. Further information on potential factors that could affect our business is described under the heading "Risk Factors" in Part I, Item 1A of our Annual Report on Form 10-K for the fiscal year ended June 30, 2012. Readers are also urged to carefully review and consider the various disclosures we have made in that report.

As used in this quarterly report, the terms "we", "us", "our", the "Company" and "Pluristem" mean Pluristem Therapeutics Inc. and our wholly owned subsidiary, Pluristem Ltd., unless otherwise indicated or as otherwise required by the context.

Overview

We are a bio-therapeutics company developing standardized cell therapy products for the treatment of life threatening diseases. Our patented PLX (PLacental eXpanded) cells are a drug delivery platform that releases a number of therapeutic proteins in response to various local and systemic inflammatory and ischemic diseases. PLX cells are grown using our proprietary 3D micro-environmental technology that produces an "off-the-shelf" product that requires no tissue matching prior to administration. We are focusing on the development of PLX cells administered locally to potentially treat systemic diseases and potentially obviating the need to administer the drugs intravenously.

Our strategy is to develop and produce cell therapy products for the treatment of multiple disorders using several methods of administration. We plan to execute this strategy independently, using our own personnel, and through relationships with research and clinical institutions or in collaboration with other companies, such as United Therapeutics Corporation, or United. We are planning to have in-house production capacity to grow clinical grade PLX cells in commercial quantities and to control all of our proprietary manufacturing processes.

RESULTS OF OPERATIONS – SIX AND THREE MONTHS ENDED DECEMBER 31, 2012 COMPARED TO SIX AND THREE MONTHS ENDED DECEMBER 31, 2011.

Revenues

Revenues for the six months ended December 31, 2012 were \$390,000 as compared to revenues of \$385,000 for the six months ended December 31, 2011. All such revenues are derived from the United Agreement. The Company estimated the performance period of the development of approximately 6.5 years. The license fee will be recognized on a straight line basis as revenue over the estimated development period.

Revenues for the three months ended December 31, 2012 were \$195,000 as compared to revenues \$231,000 for three months ended December 31, 2011. All such revenues are derived from the United Agreement. The Company estimated the performance period of the development of approximately 6.5 years. The license fee will be recognized on a straight line basis as revenue over the estimated development period.

Research and Development

Research and development expenses, net of participation of the Office of Chief Scientist, or OCS, and other grants, for the six months ended December 31, 2012 increased by 62% from \$3,911,000 for the six months ended December 31, 2011 to \$6,351,000. This increase is attributed to the material increase in our in-house research and development activity, the increase in expenses related to the clinical and preclinical trials we are conducting and timing of approval of the OCS program as more fully explained below. The material increase in research and development expenses resulted from increase in our salaries and lab materials expenses due to, among other things, hiring 42 new employees since December 2011. In addition, the research and development expenses for the six months ended December 31, 2012 are net of participation of the OCS and other grants for six months in the amount of \$1,543,000, compared to participation of the OCS for the six months ended December 31, 2011 which are \$1,921,000.

Research and development expenses, net of participation of the OCS and other grants, for the three months ended December 31, 2012 increased by 242% from \$1,067,000 for the three months ended December 31, 2011 to \$3,653,000. This increase is attributed to a material increase in our in-house research and development activity and the increase in expenses related to the clinical and preclinical trials we are involved with and a decrease in the participation of the OCS and other grants. The increase in research and development expenses resulted from an increase in our salaries due to, among other things, hiring 42 new employees since December 2011, and increases in laboratory materials expenses. The decrease in participation of the OCS and other grants is attributable to the fact that due to a delay in the approval of the OCS grant for 2011, \$1,896,000 of such annual grant was recognized in the quarter ending on December 31, 2011, compared to \$484,000 recognized in the quarter ending on December 31, 2012.

General and Administrative

General and administrative expenses for the six months ended December 31, 2012 increased by 6% from \$2,912,000 for the six months ended December 31, 2011 to \$3,101,000 mainly due to an increase in stock-based compensation expenses related to our investor relations consultants and salaries due to, among other things, hiring 4 new employees since December 2011, offset by bonuses to our officers and directors granted in 2011 related to the United Agreement.

General and administrative expenses for the three months ended December 31, 2012 increased by 11% from \$1,275,000 for the three months ended December 31, 2011 to \$1,420,000 mainly due to an increase in expenses related to the public offering that took place in September 2012 and salaries due to, among other things, hiring 4 new employees during the three months ended December 2012, offset by a decrease in stock-based compensation expenses related to our employees and consultants.

Financial Income, net

Financial income increased from an expense of \$35,000 for the six months ended December 31, 2011 to income of \$589,000 for the six months ended December 31, 2012 due to exchange rate adjustments and hedging transactions, as described below.

Financial income increased from \$126,000 for the three months ended December 31, 2011 to \$394,000 for the three months ended December 31, 2012 due to exchange rate adjustments and hedging transactions, as described below.

Net Loss

Net loss for the six and three months ended December 31, 2012 was \$8,485,000 and \$4,490,000, respectively, as compared to net loss of \$6,485,000 and \$1,992,000 for the six and three months ended December 31, 2011, respectively. Net loss per share for the six and three months ended December 31, 2012 was \$0.16 and \$0.08, respectively, as compared to \$0.15 and \$0.05 for the six and three months ended December 31, 2011.

For the six months ended December 31, 2012 and December 31, 2011, we had weighted average shares of common stock outstanding of 52,659,430 and 43,225,017, respectively, which were used in the computations of net loss per share for the six months. The increase in weighted average common shares outstanding reflects mainly shares issued in an underwritten public offering in September 2012, as well as shares issued as a result of exercise of warrants and options and issuance of restricted stock units to employees and consultants.

Liquidity and Capital Resources

As of December 31, 2012, total current assets were \$66,272,000 and total current liabilities were \$6,126,000. On December 31, 2012, we had a working capital surplus of \$60,146,000, stockholders' equity of \$69,044,000 and an accumulated deficit of \$74,232,000. We finance our operations and plan to continue doing so from our existing cash, licensing agreements, funds from grants from the OCS and issuances of our securities.

Cash and cash equivalents as of December 31, 2012 amounted to \$23,548,000, compared to \$6,672,000 as of December 31, 2011. Cash balances changed in the six months ended December 31, 2012 and December 31, 2011 for the reasons presented below.

Operating activities used cash of \$6,890,000 in the six months ended December 31, 2012, compared to providing cash of \$174,000 for the six months ended December 31, 2011. Cash used in operating activities in the six months ended December 31, 2012 primarily consisted of payments of salaries to our employees, and payments of fees to our consultants, subcontractors and professional services providers including costs of clinical studies, offset by an OCS grant. The cash provided in the six months ended December 31, 2011 also consisted of receiving the upfront payment related to the United Agreement in the amount of \$7,000,000.

Investing activities used cash of \$14,895,000 in the six months ended December 31, 2012, compared to \$36,731,000 for the six months ended December 31, 2011. The investing activities in the six months ended December 31, 2012 consisted primarily of investing \$10,646,000 in short term deposits and \$2,204,000 in marketable securities and purchasing equipment and paying for the construction of our new facilities in the amount of \$3,338,000. The investing activities in the six months ended December 31, 2011 consisted primarily of investing in short-term and long-term bank deposits and in marketable securities.

Financing activities generated cash of \$35,944,000 during the six months ended December 31, 2012, compared to \$400,000 for the six months ended December 31, 2011. Net proceeds from the public offering we closed in September 2012 were \$34,106,000, as described below. The rest of the cash generated in the six months ended December 31, 2012 and the cash generated in the six months ended December 31, 2011, from financing activities, is from exercises of warrants by shareholders and exercises of options by employees and consultants.

On September 19, 2012, we closed a firm commitment underwritten public offering of 8,000,000 units, at a purchase price of \$4.00 per unit, with each unit consisting of one share of our common stock and one warrant to purchase 0.35 shares of common stock, at a purchase price of \$5.00 per share. The warrants sold in the offering will be exercisable starting on March 19, 2013 and will expire on September 19, 2017. We also granted the underwriters a 30-day option to purchase up to 1,200,000 shares of common stock and/or warrants to purchase up to 420,000 shares of common stock, which option was fully exercised. The aggregate net proceeds to our Company from the offering, including from the exercise in full of the option, were approximately \$34 million, before the exercise of any warrants (which has not yet occurred) and after deducting underwriting commissions and discounts and offering expenses of the Company.

During the six months ended December 31, 2012, 1,027,247 warrants were exercised in consideration for \$1,679,000, and 718,213 warrants were exercised on a cashless basis resulting in the net issuance of 446,423 shares of stock.

During the six months ended December 31, 2012, we received approximately \$872,000 from the OCS towards our research and development expenses. According to the OCS grant terms, we are required to pay royalties at a rate of 3% - 5% on sales of products and services derived from technology developed using this and other OCS grants until 100% of the dollar-linked grants amount plus interest are repaid. In the absence of such sales, no payment is required. During the six months ended December 31, 2012, we paid royalties to the OCS in the aggregate amount of \$12,000.

As of today, the currency of our financial portfolio is mainly in U.S. dollars and we use forward and options contracts in order to hedge our exposures to currencies other than the U.S. dollar.

We have accumulated a deficit of \$74,232,000 since our inception in May 2001. We do not expect to generate any revenues from sales of products in the next twelve months. Our products will likely not be ready for sale for at least three years, if at all. Our cash needs will increase in the foreseeable future. We expect that in the coming years our research and development and general and administrative expenses will continue to grow. We expect to generate revenues, which in the short and medium terms will unlikely exceed our costs of operations, from the sale of licenses to use our technology or products, as we have in the United Agreement. Our management believes that we may need to raise additional funds before we have cash flow from operations that can materially decrease our dependence on our existing cash and other liquidity resources. We are continually looking for sources of funding, including non-diluting sources such as the OCS grants. For instance, in January 2013, MTM – Scientific Industries Center Haifa Ltd. (“MTM”), our landlord, agreed to contribute NIS 2,990,000 (equals approximately \$800,000) toward the cost of constructing our new facility. Such contribution is being made pursuant to our lease agreement with MTM.

In December 2012, we entered into an At Market Issuance Sales Agreement, or the Sales Agreement, with MLV & Co. LLC, or MLV, which provides that, upon the terms and subject to the conditions and limitations set forth in the Sales Agreement, we may elect to issue and sell shares of our common stock having an aggregate offering price of up to \$95 million from time to time through MLV as our sales agent. We are not obligated to make any sales of common stock under the Sales Agreement. To date, we have not sold any common stock pursuant to the Sales Agreement.

We believe that we have sufficient cash to fund our operations for at least the next 12 months.

Off Balance Sheet Arrangements

We have no off balance sheet arrangements.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures - We maintain a system of disclosure controls and procedures that are designed for the purposes of ensuring that information required to be disclosed in our SEC reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer, or CEO, and our Chief Financial Officer, or CFO, as appropriate to allow timely decisions regarding required disclosures.

As of the end of the period covered by this report, we carried out an evaluation, under the supervision and with the participation of our CEO and our CFO, of the effectiveness of our disclosure controls and procedures as defined in Rule 13a-15(e) of the Securities Exchange Act of 1934, as amended. Based on that evaluation, our CEO and CFO concluded that our disclosure controls and procedures are effective.

Changes in Internal Control Over Financial Reporting - There has been no change in our internal control over financial reporting during the second quarter of fiscal 2013 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 6. Exhibits.

- 10.1 At Market Issuance Sales Agreement dated December 26, 2012 between Pluristem Therapeutics Inc. and MLV & Co. LLC (incorporated by reference to Exhibit 1.1 to the Company's Current Report on Form 8-K filed December 26, 2012).
- 31.1* Rule 13a-14(a) Certification of Chief Executive Officer.
- 31.2* Rule 13a-14(a) Certification of Chief Financial Officer.
- 32.1** Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350.
- 32.2** Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350.
- 101 ** The following materials from our Quarterly Report on Form 10-Q for the quarter ended December 31, 2012 formatted in XBRL (eXtensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations, (iii) the Consolidated Statements of Comprehensive Income (Loss), (iv) the Statements of Changes in Equity, (v) the Consolidated Statements of Cash Flows, and (vi) the Notes to Consolidated Financial Statements, tagged as blocks of text and in detail.

*Filed herewith.

**Furnished herewith.

SIGNATURES

In accordance with the requirements of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

PLURISTEM THERAPEUTICS INC.

By: /s/ Zami Aberman
Zami Aberman, Chief Executive Officer
(Principal Executive Officer)
Date: January 31, 2013

By: /s/ Yaky Yanay
Yaky Yanay, Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)
Date: January 31, 2013

CERTIFICATION

I, Zami Aberman, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Pluristem Therapeutics Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13(a)-15(f) and 15d-15(f)) of the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: January 31, 2013

/s/ Zami Aberman

Zami Aberman
President and Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION

I, Yaky Yanay, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Pluristem Therapeutics Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13(a)-15(f) and 15d-15(f)) of the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: January 31, 2013

/s/ Yaky Yanay

Yaky Yanay
Chief Financial Officer and Secretary
(Principal Financial Officer)

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350

In connection with the Quarterly Report (the "Report") of Pluristem Therapeutics Inc. (the "Company") on Form 10-Q for the period ended December 31, 2012, as filed with the Securities and Exchange Commission on the date hereof, I, Zami Aberman, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. 1350, as adopted pursuant to 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: January 31, 2013

By: /s/ Zami Aberman

Zami Aberman
Chief Executive Officer

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350

In connection with the Quarterly Report (the "Report") of Pluristem Therapeutics Inc. (the "Company") on Form 10-Q for the period ended December 31, 2012, as filed with the Securities and Exchange Commission on the date hereof, I, Yaky Yanay, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. 1350, as adopted pursuant to 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: January 31, 2013

By: /s/ Yaky Yanay

Yaky Yanay
Chief Financial Officer
