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

# Form 10-Q

(Mark One)

$\boxtimes$	QUARTERLY REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE AC	Γ OF 1934
	For the quarterly period of	nded <u>September 30, 2012</u>
	TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE EXCHANGE ACT	
	For the transition period from	n to
	Commission file n	umber <u>001-31392</u>
	PLURISTEM THE	CRAPEUTICS INC.
	(Exact name of registrant	as specified in its charter)
	Nevada	98-0351734
	(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
	MATAM Advanced Technology Parl	x, Building No. 20, Haifa, Israel 31905
	(Address of princip	al executive offices)
		710-7171
	(Registrant's te	ephone number)
	cate by check mark whether the registrant (1) has filed all reports required to be filed by Section 1 the registrant was required to file such reports), and (2) has been subject to such filing requireme	3 or 15(d) of the Securities Exchange Act of 1934 during the past 12 months (or for such shorter period nts for the past 90 days.
	Yes ⊠	No □
	cate by check mark whether the registrant has submitted electronically and posted on its corporator of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter	e Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule period that the registration was required to submit and post such files).
	Yes ⊠	No □
	cate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-acciand "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):	relerated filer, or a smaller reporting company. See definitions of "large accelerated filer," "accelerated
	Large accelerated filer $\square$	Accelerated filer ⊠
	Non-accelerated filer □ (Do not check if a smaller reporting company)	Smaller reporting company □
Indi	cate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Excl	nange Act).
	Yes □	No ⊠
State	e the number of shares outstanding of each of the issuer's classes of common stock as of the late	st practicable date: 57,402,952 shares of common stock issued and outstanding as of October 29, 2012.

# PART I - FINANCIAL INFORMATION

Item 1. Financial Statements.

# PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY

# CONSOLIDATED FINANCIAL STATEMENTS

As of September 30, 2012

(unaudited)

# PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY CONSOLIDATED FINANCIAL STATEMENTS

# As of September 30, 2012

# U.S. DOLLARS IN THOUSANDS

# (Unaudited)

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# CONSOLIDATED BALANCE SHEETS U.S. Dollars in thousands

	Note	 September 30, 2012 Unaudited		une 30, 2012 Audited
ASSETS				
CURRENT ASSETS:				
Cash and cash equivalents		\$ 38,751	\$	9,389
Short term bank deposits	3	21,434		21,397
Marketable securities Other accounts receivable and prepaid expenses	3	8,129 1,668		7,023 383
Total current assets		69,982		38,192
LONG-TERM ASSETS:				
Long-term deposits and restricted deposits		984		1,287
Advance payment for leasehold improvements		3,428		2,400
Property and equipment, net		6,440		5,019
Severance pay fund		571		522
Other long term assets		39		-
<u>Total</u> long-term assets		 11,462	_	9,228
<u>Total</u> assets		\$ 81,444	\$	47,420

# CONSOLIDATED BALANCE SHEETS

# U.S. Dollars in thousands

LIABILITIES AND STOCKHOLDERS' EQUITY	Note		ber 30, 2012 audited	_	2 30, 2012 udited
LIABILITIES AND STOCKHOLDERS EQUIT					
CURRENT LIABILITIES					
Trade payables		\$	1,696	\$	1,368
Accrued expenses			1,069		922
Deferred revenues			779		779
Advance payment from United Therapeutics			959		1,576
Other accounts payable			729		877
Total current liabilities			5,232		5,522
LONG-TERM LIABILITIES					
Deferred revenues			3,310		3,505
Accrued severance pay			709		651
<u>Total</u> long term liabilities			4,019		4,156
COMMITMENTS AND CONTINGENCIES	5				
STOCKHOLDERS' EQUITY					
Share capital:	6				
Common stock \$0.00001 par value: Authorized: 100,000,000 shares Issued and outstanding: 57,257,230 shares as of					
September 30, 2012, 46,448,051 shares as of June 30, 2012			- (*)		- (*)
Additional paid-in capital			141,836		103,619
Accumulated deficit			(69,742)		(65,747)
Other comprehensive gain (loss)			99		(130)
			72,193		37,742
		•	81,444	•	47,420
		φ	81,444	Ф	47,420

(\*) Less than \$1.

CONSOLIDATED STATEMENTS OF OPERATIONS
U.S. Dollars in thousands (except share and per share data)

		nths ended nber 30,
	2012	2011
	Unaudited	Unaudited
Revenues	\$ 195	\$ 154
Cost of revenues	(6)	(5)
Gross profit	189	149
Research and development expenses	(3,748)	(2,863)
Less participation by the Office of the Chief Scientist and other parties	1,050	19
Research and development expenses, net	(2,698)	(2,844)
General and administrative expenses	(1,681)	(1,637)
Operating loss	(4,190)	(4,332)
Financial income (expenses), net	195	(161)
Net loss for the period	\$ (3,995)	\$ (4,493)
Loss per share:		
Basic and diluted net loss per share	\$ (0.08)	\$ (0.11)
Weighted average number of shares used in computing basic and diluted net loss per share	47,833,654	42,779,293

# $\frac{\text{CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)}}{\text{U.S. Dollars in thousands}}$

		Three mor Septem			
		2012	2011		
	_	Unaudited	Unaudite	dited	
Net loss	\$	(3,995)	\$	(4,493)	
Other comprehensive income, net of tax:					
Unrealized gain on available for sale marketable securities		229		1	
Total comprehensive loss	\$	(3,766)	\$	(4,492)	

 $\frac{STATEMENTS\ OF\ CHANGES\ IN\ EQUITY\ (UNAUDITED)}{U.S.\ Dollars\ in\ thousands\ (except\ share\ and\ per\ share\ data)}$ 

						Accumulated					
						Other				Total	
	Common	ı Stock		Ad	ditional Paid-in	Comprehensive		Accumulated	Stockholders'		
	Shares		Amount		Capital	gain	_	Deficit	Equity		
Balance as of July 1, 2011	42,443,185	\$	(*)	\$	94,375	\$		(50,953)	\$	43,422	
Exercise of options by employees and consultants	12,500		(*)		8			-		8	
Exercise of warrants by investors and finders	198,714		(*)		315			-		315	
Stock based compensation to employees, directors											
and non-employee consultants	330,844		(*)		1,041			-		1,041	
Unrealized gain on available for sale marketable											
securities	-		-		-	1		-		1	
Net loss for the period	-		-		-			(4,493)		(4,493)	
							-				
Balance as of September 30, 2011	42,985,243	\$	(*)	\$	95,739	\$ 1	5	(55,446)	\$	40,294	

(\*) Less than \$1.

 $\frac{STATEMENTS\ OF\ CHANGES\ IN\ EQUITY\ (UNAUDITED)}{U.S.\ Dollars\ in\ thousands\ (except\ share\ and\ per\ share\ data)}$ 

	Commo	n Stock	Additional Paid- in	Accumulated Other Comprehensive	Accumulated	Total Stockholders'	
	Shares	Amount	Capital	Income (Loss)	Deficit	Equity	
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	94,332	(*)	146	-	-	146	
Exercise of warrants by investors and finders	975,622	(*)	1,229	-	-	1,229	
Stock based compensation to employees, directors and non-							
employee consultants	539,225	(*)	1,336	-		1,336	
Stock based compensation to contractor	-	-	1,400	-	-	1,400	
Unrealized gain on available for sale marketable securities	-	-	-	229	-	229	
Net loss for the period	-	-	-	-	(3,995)	(3,995)	
Balance as of September 30, 2012	57,257,230	\$ (*)	\$ 141,836	\$ 99	\$ (69,742)	\$ 72,193	

(\*) Less than \$1

# CONSOLIDATED STATEMENTS OF CASH FLOWS U.S. Dollars in thousands

Net loss         \$ (3,995)         \$ (4,993)           Adjustments to reconcile net loss to net cash used in operating activities:         ***********************************		Thi	Three months ended September 30,				
CASH FLOWS FROM OPERATING ACTIVITIES:           Net loss         \$ (3,995)         \$ (4,493)           Adjustments to reconcile net loss to net cash used in operating activities:         ———————————————————————————————————			2012	2011			
Net loss         \$ (3,995)         \$ (4,993)           Adjustments to reconcile net loss to net cash used in operating activities:         ***********************************		Un	audited	Unaudited			
Adjustments to reconcile net loss to net cash used in operating activities:    Proper	CASH FLOWS FROM OPERATING ACTIVITIES:						
Adjustments to reconcile net loss to net cash used in operating activities:    Proper							
Page	Net loss	\$	(3,995)	\$ (4,493)			
Page							
Capital loss	Adjustments to reconcile net loss to net cash used in operating activities:						
Stock-based compensation to employees, directors and non-employee consultants         1,063         1,041           Stock compensation to investor relations consultants         273         1           Increase in other accounts receivable         (746)         (766)           Increase in prepaid expenses         (483)         (20)           Decrease (increase) in trade payables         988         (87)           Increase in other accounts payable and accrued expenses         (195)         4,846           Increase (decrease) in deferred revenues         (195)         4,846           Increase (decrease) in advance payment from United Therapeutics         (617)         2,000           Linkage differences and Increase (decrease) interest on short and long-term deposit and restricted lease deposit         (317)         55           Accretion of discount, amortization of premium and changes in accrued interest from marketable securities         43         4           Loss (gain) from sale of investments of available for sale marketable securities         15         -           Accrued severance pay, et         9         (10)           Net cash used in (provided by) operating activities         \$ (3,52)         3,361           CASH FLOWS FROM INVESTING ACTIVITIES:         \$ (1,978)         (179)           Purchase of property and equipment         \$ (1,978)         (179) <td>Depreciation</td> <td></td> <td>130</td> <td>97</td>	Depreciation		130	97			
Stock compensation to investor relations consultants	Capital loss		-	-			
Increase in other accounts receivable         (746)         (76)           Increase in prepaid expenses         (483)         (20)           Decrease (increase) in trade payables         988         (87)           Increase in other accounts payable and accrued expenses         30         205           Increase (decrease) in deferred revenues         (617)         2,000           Increase (decrease) in deferred revenues         (617)         2,000           Increase (decrease) in deferred revenues         (617)         2,000           Increase (decrease) in davance payment from United Therapeutics         (617)         2,000           Increase (decrease) in davance payment from United Therapeutics         (617)         2,000           Increase (decrease) in davance payment from United Therapeutics         (617)         2,000           Increase (decrease) in davance payment from United Therapeutics         (617)         2,000           Increase (decrease) in davance payment from United Decrease (decrease) inderest on short and long-term deposits and accrued interest from marketable securities         (37)         5           Accretion of discount, amortization of premium and changes in accrued interest from marketable securities         (9)         (1)           Net cash used in (provided by) operating activities         (1,978)         (1,978)         (1,978)           Investe				1,041			
Acrease in prepaid expenses				1			
Decrease (increase) in trade payables         988         (87)           Increase in other accounts payable and accrued expenses         30         205           Increase (decrease) in deferred revenues         (195)         4,846           Increase (decrease) in advance payment from United Therapeutics         (617)         2,000           Linkage differences and Increase (decrease) interest on short and long-term deposit and restricted lease deposit         (37)         55           Accretion of discount, amortization of premium and changes in accrued interest from marketable securities         43         4           Loss (gain) from sale of investments of available for sale marketable securities         15         -           Accrued severance pay, net         9         (1)           Net cash used in (provided by) operating activities         \$ (3,522)         3,3461           CASH FLOWS FROM INVESTING ACTIVITIES:           Purchase of property and equipment         \$ (1,978)         (179)           Investment in short-term deposits         -         (31,599)           Repayment (Investment) in long-term deposits         3         (690)           Repayment of long-term restricted deposit         3         4           Proceeds from sale and redemption of available for sale marketable securities         313         -           Investm				(76)			
Increase in other accounts payable and accrued expenses   30   205     Increase (decrease) in deferred revenues   (195)   4,846     Increase (decrease) in advance payment from United Therapeutics   (195)   2,000     Linkage differences and Increase (decrease) interest on short and long-term deposit and restricted lease deposit   (37)   555     Accretion of discount, amortization of premium and changes in accrued interest from marketable securities   43   44     Loss (gain) from sale of investments of available for sale marketable securities   9   (1)     Net cash used in (provided by) operating activities   9   (1)     Net cash used in (provided by) operating activities   (1,298)   (179)     Investment in short-term deposits   (1,298)   (199)     Repayment (Investment) in long-term deposits   300   (690)     Repayment of long-term deposits   313   4     Proceeds from sale and redemption of available for sale marketable securities   313   4     Investment in available for sale marketable securities   (1,248)   (516)     Investment in available for sale marketable securities   (1,248)   (516)     Investment in available for sale marketable securities   (1,248)   (516)     Investment in available for sale marketable securities   (1,248)   (516)     Investment in available for sale marketable securities   (1,248)   (516)     Investment in available for sale marketable securities   (1,248)   (516)     Investment in available for sale marketable securities   (1,248)   (516)     Investment in available for sale marketable securities   (1,248)   (516)     Investment in available for sale marketable securities   (1,248)   (516)     Investment in available for sale marketable securities   (1,248)   (516)     Investment in available for sale marketable securities   (1,248)   (516)     Investment in available for sale marketable securities   (1,248)   (1,248)   (1,248)   (1,248)   (1,248)   (1,248)   (1,248)   (1,248)   (1,248)   (1,248)   (1,248)   (1,248)   (1,248)   (1,248)   (1,248)   (1,248)   (1,248)   (1,248)   (1							
Increase (decrease) in deferred revenues			988				
Increase (decrease) in advance payment from United Therapeutics         (617)         2,000           Linkage differences and Increase (decrease) interest on short and long-term deposit and restricted lease deposit         (37)         55           Accretion of discount, amortization of premium and changes in accrued interest from marketable securities         43         4           Loss (gain) from sale of investments of available for sale marketable securities         9         (1)           Accrued severance pay, net         9         (1)           Net cash used in (provided by) operating activities         \$ (3,522)         \$ 3,461           CASH FLOWS FROM INVESTING ACTIVITIES:           Purchase of property and equipment         \$ (1,978)         (179)           Investment in short-term deposits         -         (31,599)           Repayment (Investment) in long-term deposits         30         (690)           Repayment of long-term restricted deposit         3         4           Proceeds from sale and redemption of available for sale marketable securities         313         -           Investment in available for sale marketable securities         (1,248)         (516)			30				
Linkage differences and Increase (decrease) interest on short and long-term deposit and restricted lease deposit         (37)         55           Accretion of discount, amortization of premium and changes in accrued interest from marketable securities         43         4           Loss (gain) from sale of investments of available for sale marketable securities         15         -           Accrued severance pay, net         9         (1)           Net cash used in (provided by) operating activities         \$ (3,522)         \$ 3,461           CASH FLOWS FROM INVESTING ACTIVITIES:           Purchase of property and equipment         \$ (1,978)         (179)           Investment in short-term deposits         -         (31,599)           Repayment (Investment) in long-term deposits         300         (690)           Repayment of long-term restricted deposit         3         4           Proceeds from sale and redemption of available for sale marketable securities         313         -           Investment in available for sale marketable securities         (1,248)         (516)			(195)	4,846			
Accretion of discount, amortization of premium and changes in accrued interest from marketable securities       43       4         Loss (gain) from sale of investments of available for sale marketable securities       9       (1)         Accrued severance pay, net       9       (1)         Net cash used in (provided by) operating activities       \$ (3,522)       \$ 3,461         CASH FLOWS FROM INVESTING ACTIVITIES:       ***       (1,798)       \$ (179)         Investment in short-term deposits       \$ (1,978)       \$ (179)         Repayment (Investment) in long-term deposits       300       (690)         Repayment of long-term restricted deposit       3 4         Proceeds from sale and redemption of available for sale marketable securities       313       4         Investment in available for sale marketable securities       313       4         Investment in available for sale marketable securities       (1,248)       (516)							
Loss (gain) from sale of investments of available for sale marketable securities         15         -           Accrued severance pay, net         9         (1)           Net cash used in (provided by) operating activities         \$ (3,522)         \$ 3,461           CASH FLOWS FROM INVESTING ACTIVITIES:           Purchase of property and equipment         \$ (1,978)         (179)           Investment in short-term deposits         -         (31,599)           Repayment (Investment) in long-term deposits         30         (690)           Repayment of long-term restricted deposit         3         4           Proceeds from sale and redemption of available for sale marketable securities         313         -           Investment in available for sale marketable securities         (1,248)         (516)			(37)	55			
Accrued severance pay, net         9         (1)           Net cash used in (provided by) operating activities         \$ (3,522)         \$ 3,461           CASH FLOWS FROM INVESTING ACTIVITIES:           Purchase of property and equipment         \$ (1,978)         \$ (179)           Investment in short-term deposits         -         (31,599)           Repayment (Investment) in long-term deposits         30         (690)           Repayment of long-term restricted deposit         3         4           Proceeds from sale and redemption of available for sale marketable securities         313         -           Investment in available for sale marketable securities         (1,248)         (516)			43	4			
Net cash used in (provided by) operating activities         \$ (3,522)         \$ 3,461           CASH FLOWS FROM INVESTING ACTIVITIES:           Purchase of property and equipment         \$ (1,978)         \$ (179)           Investment in short-term deposits         - (31,599)           Repayment (Investment) in long-term deposits         300         (690)           Repayment of long-term restricted deposit         3         4           Proceeds from sale and redemption of available for sale marketable securities         313         -           Investment in available for sale marketable securities         (1,248)         (516)				-			
CASH FLOWS FROM INVESTING ACTIVITIES:           Purchase of property and equipment         \$ (1,978)         \$ (179)           Investment in short-term deposits         - (31,599)           Repayment (Investment) in long-term deposits         300         (690)           Repayment of long-term restricted deposit         3         4           Proceeds from sale and redemption of available for sale marketable securities         313         -           Investment in available for sale marketable securities         (1,248)         (516)	Accrued severance pay, net		9	(1)			
Purchase of property and equipment         \$ (1,978)         \$ (179)           Investment in short-term deposits         - (31,599)           Repayment (Investment) in long-term deposits         30         (690)           Repayment of long-term restricted deposit         3         4           Proceeds from sale and redemption of available for sale marketable securities         313         -           Investment in available for sale marketable securities         (1,248)         (516)	Net cash used in (provided by) operating activities	\$	(3,522)	\$ 3,461			
Investment in short-term deposits   - (31,599)	CASH FLOWS FROM INVESTING ACTIVITIES:						
Repayment (Investment) in long-term deposits         300         (690)           Repayment of long-term restricted deposit         3         4           Proceeds from sale and redemption of available for sale marketable securities         313         -           Investment in available for sale marketable securities         (1,248)         (516)	Purchase of property and equipment	\$	(1,978)	\$ (179)			
Repayment of long-term restricted deposit     3     4       Proceeds from sale and redemption of available for sale marketable securities     313     -       Investment in available for sale marketable securities     (1,248)     (516)	Investment in short-term deposits		-	(31,599)			
Proceeds from sale and redemption of available for sale marketable securities 313  Investment in available for sale marketable securities (1,248) (516)	Repayment (Investment) in long-term deposits		300	(690)			
Investment in available for sale marketable securities (1,248) (516)	Repayment of long-term restricted deposit		3	4			
	Proceeds from sale and redemption of available for sale marketable securities		313				
Net cash used in investing activities \$ (2.610) \$ (32.980)	Investment in available for sale marketable securities		(1,248)	(516)			
	Net cash used in investing activities	\$	(2,610)	\$ (32,980)			

# CONSOLIDATED STATEMENTS OF CASH FLOWS U.S. Dollars in thousands

	Thre	ee months end	ded September 30,		
	2	012		2011	
	Una	Unaudited		audited	
CASH FLOWS FROM FINANCING ACTIVITIES:					
Issuance of common stock and warrants, net of issuance costs	\$	34,106	\$	-	
Exercise of warrants and options		1,388		323	
Net cash provided by financing activities	\$	35,494	\$	323	
Increase (decrease) in cash and cash equivalents		29,362		(29,196)	
Cash and cash equivalents at the beginning of the period		9,389		42,829	
Cash and cash equivalents at the end of the period	\$	38,751	\$	13,633	
(a) Supplemental disclosure of cash flow activities:					
Cash paid during the period for:					
Taxes paid due to non-deductible expenses	\$	3	\$	8	
(b) Supplemental disclosure of non-cash activities:					
Purchase of property and equipment on credit	\$	78	\$	109	
Stock based compensation to contractor	\$	1,400	\$	-	
1		,			

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 \$69,742 through September 30, 2012 and the Company incurred a net loss of \$3,995 for the three months ended September 30, 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 expense in the amount of \$5 was reclassified from R&D to cost of revenue. This reclassification did not impact total assets, total liabilities, stockholders' equity, results of operations or cash flows.

Operating results for the three months ended September 30, 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:

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 September 30, 2012 and June 30, 2012 were recorded as an asset of \$15 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.

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

# NOTE 3:- MARKETABLE SECURITIES

As of September 30, 2012, all of the Company's marketable securities were classified as available-for-sale.

				Septembe	r 30,	2012				June 30,2012																						
	Am	Amortized cost		Amortized cost		Amortized cost		Amortized cost		Amortized cost		Amortized cost		Amortized cost		Amortized cost		Amortized cost		Gross unrealized gain		Gross unrealized loss		Fair value	Am	ortized cost	1	Gross inrealized gain		Gross unrealized loss		Fair value
Available-for-sale - matures within																																
one year: Stock and index linked notes	\$	1,294	s	105	S	(36)	\$	1,363	\$	1,264	\$	57	\$	(56)	S	1,265																
Government debentures – fixed	Þ	1,294	Þ	103	Þ	(30)	Э	1,303	Э	1,204	ф	37	ф	(30)	Þ	1,203																
interest rate		152		4				156		57						57																
Corporate debentures – fixed interest		132		4		-		130		31		-		-		31																
rate		304		6		(1)		309		303		2		(2)		303																
Tute	\$	1,750	\$	115	S	(37)	\$	1,828	\$	1,624	\$	59	\$	(58)	\$	1,625																
Available-for-sale - matures after one		1,750	Ψ	113	Ψ	(37)	Ψ	1,020	Ψ	1,024	Ψ	3)	Ψ	(30)	Ψ	1,025																
year through five years:																																
Government debentures – fixed																																
interest rate		1,366		18		(37)		1,347		1,417		12		(42)		1,387																
Corporate debentures - fixed interest																																
rate		4,042		89		(33)		4,098		2,829		20		(57)		2,792																
	\$	5,408	\$	107	\$	(70)	\$	5,445	\$	4,246	\$	32	\$	(99)	\$	4,179																
Available-for-sale - matures after five years through ten years:																																
Government debentures – fixed																																
interest rate		427		2		(12)		417		467		-		(23)		444																
Corporate debentures - fixed interest																																
rate		445		2		(8)		439		816		3		(44)		775																
	\$	872	\$	4	\$	(20)	\$	856	\$	1,283	\$	3	\$	(67)	\$	1,219																
	\$	8,030	\$	226	\$	(127)	\$	8,129	\$	7,153	\$	94	\$	(224)	\$	7,023																

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 three months ended September 30, 2012.

# NOTE 4:- FAIR VALUE OF FINANCIAL INSTRUMENTS

			Sep	otember 30, 2012			June 30, 2012						
	Level 1			Level 2		Level 3		Level 1	Level 2			Level 3	
Marketable securities	\$	4,234	\$	3,895		-	5	4,181	\$	2,842	\$	-	
Derivatives		-		15		-		-		(138)		-	
Total	\$	4,234	\$	3,910	\$	-	5	4,181	\$	2,704	\$		

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

#### NOTE 5: - COMMITMENTS AND CONTINGENCIES

Commitments and contingencies that changed during the three months ended September 30, 2012 include the following:

a. Decrease in the amount of \$300 of cash pledged by the Company to secure its hedging transactions, credit line and bank guarantees.

#### NOTE 6: - SHARE CAPITAL AND STOCK OPTIONS

- a. 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. As of September 30, 2012 a balance of \$3,428 was recorded in the Company balance sheet as an advanced payment asset from the total consideration.
- b. In July through September 2012, a total of 479,532 warrants were exercised via a "cashless" manner, resulting in the issuance of 287,483 shares of common stock to investors of the Company. The Company has a commitment to issue additional 28,860 shares of common stock to one of its shareholders. In addition, 688,139 warrants were exercised and resulted in the issuance of 688,139 shares of common stock to investors of the Company. The aggregate cash consideration received was \$1,229.
- c. 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 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 share of common stock. As to any fraction of a shares 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.

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 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:

	Three months ended September 30, 2012						
	Number	Weighted Average Exercise Price		0 0		Aggregate Intrinsic Value Price	
Options outstanding at beginning of period	2,082,172	\$	3.87	Terms (in years)			
Options exercised	(74,332)		1.57				
Options outstanding at end of the period	2,007,840	\$	3.95	4.72	\$	1,968	
Options exercisable at the end of the period	2,007,840	\$	3.95	4.72	\$	1,968	
Options vested	2,007,840	\$	3.95	4.72	\$	1,968	

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-themoney options) represents the amount that would have been received by the employees and directors option holders had all option holders exercised their options on September 30, 2012. This amount changes based on the fair market value of the Company's common stock.

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

# NOTE 6: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

- ${\it d.} \quad {\it Options, warrants, restricted stock and restricted stock units to employees, directors and consultants (cont.):}$ 
  - 2. Options and warrants to non-employees:

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

		Three months ended	d September 30, 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	(56,000)	1.34		
Options and warrants outstanding at end of the period	326,000	\$ 4.29	4.90	\$ 657
Options and warrants exercisable at the end of the period	314,000	\$ 4.46	4.75	\$ 609
Options and warrants vested	326,000	\$ 4.29	4.90	\$ 657

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

	1	Three months ended September 30,		
	20	2012 2011		11
Research and development expenses	\$	-	\$	10
General and administrative expenses		18		7
	\$	18	\$	17

Future expenses related to options and warrants granted to consultants for an average time of approximately two years is \$17.

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 three months ended September 30, 2012, the Company granted restricted stock units to several Company's employees.

The following table summarizes the activities for unvested restricted stock units and restricted stock granted to employees and directors for the three months ended September 30, 2012:

	Number
Unvested at the beginning of period	2,085,276
Granted	13,000
Forfeited	(37,213)
Vested	(462,497)
Unvested at the end of the period	1,598,566
Expected to vest after September 30, 2012	1,566,803

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

	 Three months ended September 30,		
	 2012 2011		
Research and development expenses	\$ 317	\$ 253	
General and administrative expenses	608	679	
	\$ 925	\$ 932	

Future expenses related to restricted stock and restricted stock units granted to employees and directors for an average time of approximately two years is \$1,512.

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

# NOTE 6: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

- ${\it d.} \quad {\it Options, warrants, restricted stock and restricted stock units to employees, directors and consultants (cont.):}$ 
  - 4. Restricted stock and restricted stock units to consultants:

During the three months ended September 30, 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 three months ended September 30, 2012:

	Number
Unvested at the beginning of period	66,000
Granted	66,228
Vested	(76,728)
Unvested at the end of the period	55,500
Expected to vest after September 30, 2012	55,500

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

	 Three months ended September 30,			
	 2012		2011	
Research and development expenses	\$ 120	\$	92	
General and administrative expenses	273		-	
	\$ 393	\$	92	

#### 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 safety and efficacy of our PLX-PAD product as well as the extent to which it is tolerated, our plans, intentions or expectations regarding clinical studies and publication of results of such studies, 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, 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 stra

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. We are developing a pipeline of products, stored ready-to-use, derived from human placenta, a non-controversial, non-embryonic, adult cell source. Placental-derived adherent stromal cells are grown using our proprietary PluriX<sup>TM</sup> three-dimensional process that allows cells to grow in a natural environment and enables us to produce large quantities of clinical grade cells. We refer to the cells that are grown in the PluriX<sup>TM</sup> as our PLacental eXpanded cells, or PLX cells. We are expanding our in-house manufacturing capacity so that we will be able to grow large scale quantities of our cells efficiently and without reliance on outside vendors.

Our strategy is to develop and manufacture 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 plan to have inhouse manufacturing capacity to grow clinical grade PLX cells in commercial quantities and to control all of our proprietary manufacturing processes in order to assist in executing this strategy.

We believe that intramuscular administration, or IM, which means that the cells are administrated locally to the muscle and not systemically, may be suited for a number of different clinical indications. Such indications include peripheral artery disease, or PAD, critical limb ischemia, or CLI, intermittent claudication, or IC, muscle injuries, thromboangiitis obliterans, or Buerger's disease, neuropathic pain, wound healing, orthopedic injuries, bone marrow diseases and acute radiation syndrome. In addition, we have reported the results of animal and other pre-clinical studies that demonstrated the potential utility of our proprietary PLX cells, using other several administrating methods, for the treatment of multiple sclerosis, ischemic stroke, inflammatory bowel disease, acute myocardial infraction, diabetic diastolic heart failure, interstitial lung disease and radiation exposure. Under our exclusive license agreement with United, or the United Agreement, we plan to participate in the development and commercialization of a PLX cell-based product for the treatment of pulmonary arterial hypertension, or PAH.

Our first product in development, called PLX-PAD, is intended to improve the quality of life of millions of people suffering from PAD.

### RESULTS OF OPERATIONS -THREE MONTHS ENDED SEPTEMBER 30, 2012 COMPARED TO THREE MONTHS ENDED SEPTEMBER 30, 2011.

#### Revenues

Revenues for the three months ended September 30, 2012 in the amount of \$195,000 are from the United Agreement. The revenues increased by 27% from the revenues for the three months ended September 30, 2011 because we began recognizing revenue from this agreement only in August 2011.

#### Research and Development

Research and development expenses, net of participation of the Office of Chief Scientist, or the OCS, and other grants, for the three months ended September 30, 2012 decreased by 5% from \$2,844,000 for the three months ended September 30, 2011 to \$2,698,000. This decrease is attributed to an increase in the participation of the OCS this quarter compared to the first quarter of fiscal 2011 due to a delay in approving the 2011 OCS grant offset by an 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.

### General and Administrative

General and administrative expenses for the three months ended September 30, 2012 increased by 3% from \$1,637,000 for the three months ended September 30, 2011 to \$1,681,000 mainly due to an increase in stock-based compensation expenses related to our employees and consultants, offset by bonuses to our officers and directors granted last year related to the United Agreement.

#### Financial Income, net

Financial income increased from an expense of \$161,000 for the three months ended September 30, 2011 to an income of \$195,000 for the three months ended September 30, 2012 due to exchange rate adjustments and hedging transactions, as described below, as well as interest income on bank deposits on larger cash balances.

#### Net Loss

Net loss for the three months ended September 30, 2012 was \$3,995,000 as compared to a net loss of \$4,493,000 for the three months ended September 30, 2011. Net loss per share for the three months ended September 30, 2012 was \$0.08 as compared to \$0.11 for the three months ended September 30, 2011.

For the periods ended September 30, 2012 and September 30, 2011, we had weighted average shares of common stock outstanding of 47,833,654 and 42,779,293, respectively, that were used in the computations of net loss per share for the three 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 September 30, 2012, total current assets were \$69,982,000 and total current liabilities were \$5,232,000. On September 30, 2012, we had a working capital surplus of \$64,750,000, stockholders' equity of \$72,193,000 and an accumulated deficit of \$69,742,000. 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 September 30, 2012 amounted to \$38,751,000, compared to \$13,633,000 as of September 30, 2011. Cash balances increased in the three months ended September 30, 2012 for the reasons presented below.

Operating activities used cash of \$3,522,000 in the three months ended September 30, 2012, compared to providing cash of \$3,461,000 for the three months ended September 30, 2011. Cash used in operating activities in the three months ended September 30, 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 three months ended September 30, 2011 also consisted of receiving the upfront payment related to the License Agreement with United in the amount of \$7,000,000.

Investing activities used cash of \$2,610,000 in the three months ended September 30, 2012, compared to \$32,980,000 for the three months ended September 30, 2011. The investing activities in the three months ended September 30, 2012 consisted primarily of investing \$1,248,000 in marketable securities and purchasing equipment and paying for the construction of our new facilities in the amount of \$1,978,000. The investing activities in the three months ended September 30, 2011 consisted primarily of investing in short-term and long-term bank deposits and in marketable securities.

Financing activities generated cash of \$35,494,000 during the three months ended September 30, 2012, compared to \$323,000 for the three months ended September 30, 2011. Net proceeds from the public offering were \$34,106,000, as described below, and the rest of the cash generated in the three months ended September 30, 2012 and the cash generated in the three months ended September 30, 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 on March 19, 2013 and 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 past three months, 688,139 warrants were exercised in consideration for \$1,229,000, and 479,032 warrants were exercised on a cashless basis resulting in the net issuance of 287,483 shares of stock

During the three months ended September 30, 2012, we received approximately \$474,000 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.

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 \$69,742,000 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. 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. We have an effective shelf registration statement, which we used in connection with the offering mentioned above and may use in the future to raise additional funds.

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 (CEO) and our Chief Financial Officer (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 first 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 2. Unregistered Sales of Equity Securities and Use of Proceeds.

In August 2012 we granted  $50,\!000$  restricted stock units to a consultant for services rendered.

The above issuance and sale was exempt under Section 4(a)(2) of the Securities Act of 1933, as amended.

# Item 6. Exhibits.

4.1*	Warrant Agreement dated September 19, 2012, by and between the registrant and American Stock Transfer & Trust Company, LLC (including the form of Warrant certificate).
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 September 30, 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.

<sup>\*</sup>Filed herewith.

<sup>\*\*</sup>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: <u>/s/ Zami Aberman</u>
Zami Aberman, Chief Executive Officer
(Principal Executive Officer)
Date: November 6, 2012

By: /s/ Yaky Yanay Yaky Yanay, Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer) Date: November 6, 2012

Exhibit 4.1

#### WARRANT AGREEMENT

WARRANT AGREEMENT made as of September 19, 2012 ("Issuance Date"), between Pluristem Therapeutics Inc., a Nevada corporation ("Company"), and American Stock Transfer & Trust Company, LLC, a New York limited liability company ("Warrant Agent").

WHEREAS, the Company has sold units ("<u>Units</u>"), each consisting of one share of common stock ("<u>Common Stock</u>") of the Company and a warrant to purchase 0.35 shares of Common Stock at an exercise price of \$5.00 per share of Common Stock, subject to adjustment as described herein (the "<u>Warrants</u>"), pursuant to an Underwriting Agreement between the Company and Jefferies & Company, Inc., as Representative of the Underwriters (the "<u>Underwriting Agreement</u>"), dated September 13, 2012; and

WHEREAS, the Units and the shares issuable upon exercise of the Warrants ("Warrant Shares") were issued by the Company in a public offering pursuant to an effective shelf registration statement on Form S-3, Registration No. 333-177009 ("Registration Statement") filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended ("Act"); and

WHEREAS, the Company desires the Warrant Agent to act on behalf of the Company, and the Warrant Agent is willing to so act, in connection with the issuance, registration, transfer, exchange and exercise of the Warrants; and

WHEREAS, the Company desires to provide for the form and provisions of the Warrants, the terms upon which they shall be issued and exercised, and the respective rights, limitation of rights, and immunities of the Company, the Warrant Agent, and the holders of the Warrants; and

WHEREAS, all acts and things have been done and performed which are necessary to make the Warrants, when executed on behalf of the Company and countersigned by or on behalf of the Warrant Agent, as provided herein, the valid, binding and legal obligations of the Company, and to authorize the execution and delivery of this Warrant Agreement.

NOW, THEREFORE, in consideration of the mutual agreements herein contained, the parties hereto agree as follows:

1. Appointment of Warrant Agent. The Company hereby appoints the Warrant Agent to act as agent for the Company for the Warrants, and the Warrant Agent hereby accepts such appointment and agrees to perform the same in accordance with the terms and conditions set forth in this Warrant Agreement.

#### Warrants.

2.1 Form of Warrant. Each Warrant shall be issued in registered form only, shall be in substantially the form of Exhibit A hereto, the provisions of which are incorporated herein, and shall be signed by, or bear the facsimile signature of, the Chairman of the Board or President and Treasurer, Secretary or Assistant Secretary of the Company, and shall bear a facsimile of the Company's seal, if any. In the event the person whose facsimile signature has been placed upon any Warrant shall have ceased to serve in the capacity in which such person signed the Warrant before such Warrant is issued, it may be issued with the same effect as if he or she had not ceased to be such at the date of issuance.

2.2. <u>Effect of Countersignature</u>. Unless and until countersigned by the Warrant Agent pursuant to this Warrant Agreement, a Warrant shall be invalid and of no effect and may not be exercised by the holder thereof.

#### 2.3. Registration.

2.3.1. Warrant Register. The Warrant Agent shall maintain books ("Warrant Register"), for the registration of original issuance and the registration of transfer of the Warrants. Upon the initial issuance of the Warrants, the Warrant Agent shall issue and register the Warrants in the names of the respective holders thereof in such denominations and otherwise in accordance with instructions delivered to the Warrant Agent by the Company. The Warrants may be represented by definitive Warrant Certificates in physical form or by one or more book-entry warrant certificates ("Book-Entry Warrant Certificates") deposited with the Depository Trust Company (the "Depository") and registered in the name of Cede & Co., a nominee of the Depository. Definitive Warrant Certificates shall be in substantially the form annexed hereto as Exhibit A. Ownership of beneficial interests in the Book-Entry Warrant Certificates shall be shown on, and the transfer of such ownership shall be effected through, records maintained (i) by the Depository or its nominee for each Book-Entry Warrant Certificate; (ii) by institutions that have accounts with the Depository (such institution, with respect to a Warrant in its account, a "Participant"); or (iii) directly on the book-entry records of the Warrant Agent with respect only to owners of beneficial interests that request such direct registration.

If the Depository subsequently ceases to make its book-entry settlement system available for the Warrants, the Company may instruct the Warrant Agent regarding making other arrangements for book-entry settlement within ten (10) days after the Depository ceases to make its book-entry settlement available. In the event that the Company does not make alternative arrangements for book-entry settlement within ten (10) days or the Warrants are not eligible for, or it is no longer necessary to have the Warrants available in, book-entry form, the Warrant Agent shall provide written instructions to the Depository to deliver to the Warrant Agent for cancellation each Book-Entry Warrant Certificate, and the Company shall instruct the Warrant Agent to deliver to the Depository definitive Warrant Certificates in physical form evidencing such Warrants.

- 2.3.2. Beneficial Owner; Registered Holder. The term "beneficial owner" shall mean any person in whose name ownership of a beneficial interest in the Warrants evidenced by (a) a Book-Entry Warrant Certificate is recorded in the records maintained by the Depository or its nominee or (b) a definitive Warrant Certificate is recorded in the book-entry records of the Warrant Agent. Prior to due presentment for registration of transfer of any Warrant, the Company and the Warrant Agent may deem and treat the person in whose name such Warrant shall be registered upon the Warrant Register ("registered holder"), as the absolute owner of such Warrant and of each Warrant represented thereby (notwithstanding any notation of ownership or other writing on the Warrant Certificate made by anyone other than the Company or the Warrant Agent), for the purpose of any exercise thereof, and for all other purposes, and neither the Company nor the Warrant Agent shall be affected by any notice to the contrary.
  - 2.4. <u>Detachability of Warrants</u>. The securities comprising the Units will be separately transferable immediately upon issuance.
- 2.5 <u>Uncertificated Warrants.</u> Notwithstanding the foregoing and anything else herein to the contrary, the Warrants may be issued in uncertificated form if so specified by the Company.

#### 3. Terms and Exercise of Warrants.

- 3.1. Exercise Price. Each Warrant shall, when countersigned by the Warrant Agent, entitle the registered holder thereof, subject to the provisions of such Warrant and of this Warrant Agreement, to purchase from the Company the number of shares of Common Stock stated therein, at the price of \$5 per whole share, subject to the adjustments provided in Section 4 hereof. The term "Exercise Price" as used in this Warrant Agreement refers to the price per share at which Common Stock may be purchased at the time a Warrant is exercised.
- 3.2. <u>Duration of Warrants</u>. A Warrant may be exercised only during the period ("<u>Exercise Period</u>") commencing on March 19, 2013 and terminating at 5:00 P.M., Eastern time on September 19, 2017 ("<u>Expiration Date</u>"). Each Warrant not exercised on or before the Expiration Date shall become void, and all rights thereunder and all rights in respect thereof under this Warrant Agreement shall cease at the close of business on the Expiration Date.

#### Exercise of Warrants.

3.3.1. Exercise and Payment. A registered holder may exercise a Warrant by delivering, not later than 5:00 P.M., Eastern time, on any Business Day during the Exercise Period (the "Exercise Date") to the Warrant Agent at its corporate trust department (i) the Warrant Certificate evidencing the Warrants to be exercised, or, in the case of a Book-Entry Warrant Certificate, the Warrants to be exercised (the "Book-Entry Warrants") free on the records of the Depository to an account of the Warrant Agent at the Depository designated for such purpose in writing by the Warrant Agent to the Depository from time to time, (ii) an election to purchase the Shares underlying the Warrants to be exercised ("Election to Purchase"), properly completed and executed by the registered holder on the reverse of the Warrant Certificate or, in the case of a Book-Entry Warrant Certificate, properly delivered by the Participant in accordance with the Depository's procedures, and (iii), except as provided in 3.3.8, the Warrant Price for each Warrant to be exercised in lawful money of the United States of America by certified or official bank check or by bank wire transfer in immediately available funds.

If any of (A) the Warrant Certificate or the Book-Entry Warrants, (B) the Election to Purchase, or (C) the Warrant Price therefor, is received by the Warrant Agent after 5:00 P.M., Eastern time, on the specified Exercise Date, the Warrants will be deemed to be received and exercised on the Business Day next succeeding the Exercise Date. If the date specified as the Exercise Date is not a Business Day, the Warrants will be deemed to be received and exercised on the next succeeding day that is a Business Day. If the Warrants are received or deemed to be received after the Expiration Date, the exercise thereof will be null and void and any funds delivered to the Warrant Agent will be returned to the registered holder or Participant, as the case may be, as soon as practicable. In no event will interest accrue on funds deposited with the Warrant Agent in respect of an exercise or attempted exercise of Warrants. The validity of any exercise of Warrants will be determined by the Company in its sole discretion and such determination will be final and binding upon the registered holder and the Warrant Agent. Neither the Company nor the Warrant Agent shall have any obligation to inform a registered holder of the invalidity of any exercise of Warrants.

The Warrant Agent shall deposit all funds received by it in payment of the Warrant Price in the account of the Company maintained with the Warrant Agent for such purpose and shall advise the Company at the end of each day on which funds for the exercise of the Warrants are received of the amount so deposited to its account. The Warrant Agent shall promptly confirm such telephonic advice to the Company in writing.

3.3.2. <u>Issuance of Certificates</u>. The Warrant Agent shall, within a reasonable time, advise the Company and the transfer agent and registrar in respect of (a) the Shares issuable upon such exercise as to the number of Warrants exercised in accordance with the terms and conditions of this Agreement, (b) the instructions of each registered holder or Participant, as the case may be, with respect to delivery of the Warrant Shares issuable upon such exercise, and the delivery of definitive Warrant Certificates, as appropriate, evidencing the balance, if any, of the Warrants remaining after such exercise, (c) in case of a Book-Entry Warrant Certificate, or a Participant, as appropriate, evidencing the balance, if any, of the Warrants remaining after such exercise and (d) such other information as the Company or such transfer agent and registrar shall reasonably require.

The Company shall, by 5:00 P.M., Eastern time, on the third Business Day next succeeding the Exercise Date of any Warrant and the clearance of the funds in payment of the Warrant Price (the "Warrant Shares Delivery Date"), execute, issue and deliver to the Warrant Agent, the Warrant Shares to which such registered holder or Participant, as the case may be, is entitled, in fully registered form, registered in such name or names as may be directed by such registered holder or the Participant, as the case may be. Upon receipt of such Warrant Shares, the Warrant Agent shall, by 5:00 P.M., Eastern Time, on the third Business Day next succeeding such Exercise Date, transmit such Warrant Shares to or upon the order of the registered holder or Participant, as the case may be.

In lieu of delivering physical certificates representing the Warrant Shares issuable upon exercise, provided the Company's transfer agent is participating in the Depository's Fast Automated Securities Transfer program, the Company shall use its reasonable best efforts to cause its transfer agent to electronically transmit the Warrant Shares issuable upon exercise to the registered holder or the Participant by crediting the account of the registered holder's prime broker with the Depository or of the Participant through its Deposit Withdrawal Agent Commission system. The time periods for delivery described in the immediately preceding paragraph shall apply to the electronic transmittals described herein.

If the Warrant Agent fails to comply with the preceding paragraphs in this Section 3.3.2 by the Warrant Shares Delivery Date, then the registered holder will have the right to rescind its exercise.

and nonassessable.

- 3.3.3. <u>Valid Issuance</u>. All shares of Common Stock issued upon the proper exercise of a Warrant in conformity with this Warrant Agreement shall be validly issued, fully paid
- 3.3.4. <u>Dividends</u>. The accrual of dividends, if any, on the Warrant Shares issued upon the valid exercise of any Warrant will be governed by the terms generally applicable to the Common Stock. From and after the issuance of such Warrant Shares, the former holder of the Warrants exercised will be entitled to the benefits generally available to other holders of Common Stock and such former holder's right to receive payments of dividends and any other amounts payable in respect of the Warrant Shares shall be governed by, and shall be subject to, the terms and provisions generally applicable to the Common Stock
- 3.3.5 No Fractional Exercise. No fractional Warrant Shares shall be issued upon the exercise of any Warrant. As to any fraction of a Warrant Share which the registered 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 (as calculated below) less the Exercise Price. If fewer than all of the Warrants evidenced by a Warrant Certificate are exercised, a new Warrant Certificate for the number of unexercised Warrants remaining shall be executed by the Company and countersigned by the Warrant Agent as provided in Section 2 of this Agreement, and delivered to the holder of this Warrant Certificate at the address specified on the books of the Warrant Agent or as otherwise specified by such registered holder. If fewer than all the Warrants evidenced by a Book-Entry Warrant Certificate are exercised, a notation shall be made to the records maintained by the Depository, its nominee for each Book-Entry Warrant Certificate, or a Participant, as appropriate, evidencing the balance of the Warrants remaining after such exercise.

- 3.3.6 No Transfer Taxes. The Company shall not be required to pay any stamp or other tax or governmental charge required to be paid in connection with any transfer involved in the issue of the Warrant Shares upon the exercise of Warrants; and in the event that any such transfer is involved, the Company shall not be required to issue or deliver any Warrant Shares until such tax or other charge shall have been paid or it has been established to the Company's satisfaction that no such tax or other charge is due.
- 3.3.7 <u>Date of Issuance</u>. Each person in whose name any such certificate for shares of Common Stock is issued shall for all purposes be deemed to have become the holder of record of such shares on the date on which the Warrant was surrendered and payment of the Warrant Price was made, irrespective of the date of delivery of such certificate, except that, if the date of such surrender and payment is a date when the stock transfer books of the Company are closed, such person shall be deemed to have become the holder of such shares at the close of business on the next succeeding date on which the stock transfer books are open.
- 3.3.8 Optional Cashless Exercise. If at any time during the term of this Warrant there is no effective Registration Statement registering, or no current prospectus available for, the issuance or resale of the Warrant Shares by the registered holder, then this Warrant may also be exercised at such time by means of a "cashless exercise" in which the registered holder shall be entitled to receive a certificate for the number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:
  - (A) = the VWAP (as defined below) on the Trading Day immediately preceding the date of such election;
  - (B) = the Exercise Price of this Warrant, as adjusted; and
  - (X) = the number of Warrant Shares issuable upon exercise of this Warrant in accordance with the terms of this Warrant by means of a cash exercise rather than a cashless exercise.

The term "VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market (as defined below), the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (Eastern time), (b) if the OTC Bulletin Board is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the OTC Bulletin Board, (c) if the Common Stock is not then listed or quoted for trading on the OTC Bulletin Board and if prices for the Common Stock are then reported in the "Pink Sheets" published by Pink Sheets, LLC (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Warrant Agent and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

The term "<u>Trading Market</u>" means any of the following U.S. markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE, NYSE AMEX, the NASDAQ Capital Market, the NASDAQ Global Market or the NASDAQ Global Select Market (or any successors to any of the foregoing).

3.3.9 <u>Disputes</u>. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall promptly issue to the registered holder the number of Warrant Shares that are not disputed.

3.3.10 Limitations on Exercise. The Warrant Agent shall not effect any exercise of this Warrant, and a registered holder shall not have the right to exercise any portion of this Warrant to the extent that after giving effect to such issuance after exercise as set forth on the applicable exercise notice, the registered holder (together with the registered holder's Affiliates, and any other person or entity acting as a group together with the registered holder or any of the registered holder's Affiliates), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the registered holder and its Affiliates shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (A) exercise of the remaining, non-exercised portion of this Warrant beneficially owned by the registered holder or any of its Affiliates and (B) exercise or conversion of the unexercised or non-converted portion of any other securities of the Company (including, without limitation, any other equity equivalent securities) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the registered holder or any of its Affiliates. Except as set forth in the preceding sentence, for purposes of this Section 3.3.10, beneficial ownership shall be calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934 and the rules and regulations promulgated thereunder (the "Exchange Act"), it being acknowledged by the registered holder that the Company is not representing to the registered holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the registered holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 3.3.10 applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the registered holder together with any Affiliates) and of which portion of this Warrant is exercisable shall be in the sole discretion of the registered holder, and the submission of an exercise notice shall be deemed to be the registered holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the registered holder together with any Affiliates) and of which portion of this Warrant is exercisable, in each case subject the Beneficial Ownership Limitation, and the Company and the Warrant Agent shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act. For purposes of this Section 3.3.10, in determining the number of outstanding shares of Common Stock, a registered holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report as the case may be, (B) a more recent public announcement by the Company or (C) any other notice by the Company or its transfer agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a registered holder, the Company shall within three (3) Business Days confirm orally and in writing to the registered holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the registered holder or its Affiliates since the date as of which such number of outstanding shares of Common Stock was reported.

The "Beneficial Ownership Limitation" shall be 4.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The registered holder, upon not less than sixty one (61) days' prior notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 1(d), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the registered holder and the provisions of this Section 3.3.10 shall continue to apply. Any such increase or decrease will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this Section 3.3.10 shall be construed, corrected and implemented in a manner so as to effectuate the intended Beneficial Ownership Limitation herein contained. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

3.4. Buy-in Procedures and Compensation. If a certificate representing the Warrant Shares is not delivered pursuant to the provisions of Section 3.3.2 on or prior to the Warrant Shares Delivery Date, and if after such date the registered holder is required by its broker to purchase (in an open market transaction or otherwise) or the registered holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the registered holder of the Warrant Shares which the registered noticipated receiving upon exercise of the Warrant (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder plan by written notice to the Company and the Warrant Agent, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. The registered holder shall provide the Company and the Warrant Agent with written notice of the cash amounts referred to in the preceding sentence and, upon request of the Company, evidence thereof. Nothing herein shall limit a registered holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver certificates representing shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof

#### Adjustments.

- 4.1. Adjustment upon Subdivision or Combination of Common Stock. If the Company at any time on or after the Subscription Date subdivides (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise) one or more classes of its outstanding shares of Common Stock into a greater number of shares, the Exercise Price in effect immediately prior to such subdivision will be proportionately reduced and the number of Warrant Shares will be proportionately increased. If the Company at any time on or after the Subscription Date combines (by any stock split, stock dividend, recapitalization, reorganization, scheme, arrangement or otherwise) one or more classes of its outstanding shares of Common Stock into a smaller number of shares, the Exercise Price in effect immediately prior to such combination will be proportionately increased and the number of Warrant Shares will be proportionately decreased. Any adjustment under this Section 4.1 shall become effective at the close of business on the date the subdivision or combination becomes effective.
- 4.2. Subsequent Rights Offerings. If the Company, at any time while the Warrant is outstanding, shall issue rights, options or warrants to all holders of Common Stock (and not to the registered holders of the Warrants) entitling them to subscribe for or purchase shares of Common Stock at a price per share less than the VWAP at the record date mentioned below, then the Exercise Price shall be multiplied by a fraction, of which the denominator shall be the number of shares of the Common Stock outstanding on the date of issuance of such rights or warrants plus the number of additional shares of Common Stock offered for subscription or purchase, and of which the numerator shall be the number of shares of the Common Stock outstanding on the date of issuance of such rights or warrants plus the number of shares which the aggregate offering price of the total number of shares so offered (assuming receipt by the Company in full of all consideration payable upon exercise of such rights, options or warrants) would purchase at such VWAP. Such adjustment shall be made whenever such rights or warrants are issued, and shall become effective immediately after the record date for the determination of stockholders entitled to receive such rights, options or warrants.

- 4.3. Pro Rata Distributions. If the Company, at any time while this Warrant is outstanding, shall distribute to all holders of Common Stock (and not to the registered holders of the Warrants) evidence of its indebtedness or assets (including cash and cash dividends) or rights or warrants to subscribe for or purchase any security other than the Common Stock, then in each such case the Exercise Price shall be adjusted by multiplying the Exercise Price in effect immediately prior to the record date fixed for determination of stockholders entitled to receive such distribution by a fraction of which the denominator shall be the VWAP determined as of the record date mentioned above, and of which the numerator shall be such VWAP on such record date less the then per share fair market value at such record date of the portion of such assets or evidence of indebtedness so distributed applicable to one outstanding share of the Common Stock as determined by the board of directors of the Company in good faith. In either case the adjustments shall be described in a statement provided to each registered holder of the Warrants of the portion of assets or evidence of indebtedness so distributed or such subscription rights applicable to one share of Common Stock. Such adjustment shall be made whenever any such distribution is made and shall become effective immediately after the record date mentioned above.
- Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company effects any merger or consolidation of the Company with or into another person or entity, (ii) the Company effects any sale of all or substantially all of its assets in one or a series of related transactions, (iii) any tender offer or exchange offer (whether by the Company or another person or entity) is completed pursuant to which holders of Common Stock are permitted to tender or exchange their shares for other securities, cash or property or (iv) the Company effects any reclassification of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the registered holders of the Warrants each shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such merger, consolidation or disposition of assets by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such event. For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. To the extent necessary to effectuate the foregoing provisions, any successor to the Company or surviving entity in such Fundamental Transaction shall issue to each registered holder of the Warrants a new warrant consistent with the foregoing provisions and evidencing such registered holder's right to exercise such warrant into Alternate Consideration. The terms of any agreement pursuant to which a Fundamental Transaction is effected shall include terms requiring any such successor or surviving entity to comply with the provisions of this Section 4.4 and ensuring that the Warrants (or any such replacement security) will be similarly adjusted upon any subsequent transaction analogous to a Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction that is (1) an all cash transaction, (2) a "Rule 13e-3 transaction" as defined in Rule 13e-3 under the Exchange Act, or (3) a Fundamental Transaction involving a person or entity not traded on a national securities exchange, the NASDAQ Global Select Market, the NASDAQ Global Market, or the NASDAQ Capital Market, the Company or any successor entity shall pay at each registered holder's option, exercisable at any time concurrently with or within 30 days after the consummation of the Fundamental Transaction, an amount of cash equal to the value of this Warrant as determined in accordance with the Black Scholes Option Pricing Model obtained from the "OV" function on Bloomberg L.P. using (A) a price per share of Common Stock equal to the VWAP of the Common Stock for the Trading Day immediately preceding the date of consummation of the applicable Fundamental Transaction, (B) a risk-free interest rate corresponding to the U.S. Treasury rate for 30 day period immediately prior to the consummation of the applicable Fundamental Transaction, (C) an expected volatility equal to the 100 day volatility obtained from the "HVT" function on Bloomberg L.P. determined as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, and (D) a remaining option time equal to the time between the date of the public announcement of such transaction and the Termination Date.

#### 4.5. Notices.

- 4.5.1. Notices of Changes in Warrant. Upon every adjustment of the Warrant Price or the number of shares issuable upon exercise of a Warrant, the Company shall give written notice thereof to the Warrant Agent, which notice shall state the Warrant Price resulting from such adjustment and the increase or decrease, if any, in the number of shares purchasable at such price upon the exercise of a Warrant, setting forth in reasonable detail the method of calculation and the facts upon which such calculation is based. Upon the occurrence of any event specified in Sections 4.1 through 4.4, then, in any such event, the Company shall give written notice to each registered holder of a Warrant, at the last address set forth for such holder in the Warrant Register, of the record date or the effective date of the event. Failure to give such notice, or any defect therein, shall not affect the legality or validity of such event.
- 4.5.2. Notices of Certain Events to Allow Exercise. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, of any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be mailed to each registered holder of a Warrant, at its last address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to mail such notice or any defect therein or in the mailing thereof shall not affect the validity of the corporate action required to be specified in such notice. Each registered holder of a Warrant tie entitled to exercise its Warrant during the period commencing on the date of such notice to the effective date of the even

4.6. Form of Warrant. The form of Warrant need not be changed because of any adjustment pursuant to this Section 4, and Warrants issued after such adjustment may state the same Warrant Price and the same number of shares as is stated in the Warrants initially issued pursuant to this Warrant Agreement. However, the Company may at any time in its sole discretion make any change in the form of Warrant that the Company may deem appropriate and that does not affect the substance thereof, and any Warrant thereafter issued or countersigned, whether in exchange or substitution for an outstanding Warrant or otherwise, may be in the form as so changed.

#### 5. Transfer and Exchange of Warrants.

- 5.1. Registration of Transfer. The Warrant Agent shall register the transfer, from time to time, of any outstanding Warrant upon the Warrant Register, upon surrender of such Warrant for transfer, properly endorsed with signatures properly guaranteed and accompanied by appropriate instructions for transfer. Upon any such transfer, a new Warrant representing an equal aggregate number of Warrants shall be issued and the old Warrant shall be cancelled by the Warrant Agent. The Warrants so cancelled shall be delivered by the Warrant Agent to the Company from time to time upon request.
- 5.2. Procedure for Surrender of Warrants. Warrants may be surrendered to the Warrant Agent, together with a written request for exchange or transfer, and thereupon the Warrant Agent shall issue in exchange therefor one or more new Warrants as requested by the registered holder of the Warrants so surrendered, representing an equal aggregate number of Warrants; provided, however, that except as otherwise provided herein or in any Book-Entry Warrant Certificate, each Book-Entry Warrant Certificate may be transferred only in whole and only to the Depository, to another nominee of the Depository, to a successor depository, or to a nominee of a successor depository; provided further, however, that in the event that a Warrant surrendered for transfer bears a restrictive legend, the Warrant Agent shall not cancel such Warrant and issue new Warrants in exchange therefor until the Warrant Agent has received an opinion of counsel for the Company stating that such transfer may be made and indicating whether the new Warrants must also bear a restrictive legend. Upon any such registration of transfer, the Company shall execute, and the Warrant Agent shall countersign and deliver, in the name of the designated transferee a new Warrant Certificate or Warrant Certificates of any authorized denomination evidencing in the aggregate a like number of unexercised Warrants.
- 5.3. Fractional Warrants. The Warrant Agent shall not be required to effect any registration of transfer or exchange which will result in the issuance of a warrant certificate for a fraction of a warrant.
  - 5.4. Service Charges. No service charge shall be made for any exchange or registration of transfer of Warrants.
- 5.5. <u>Warrant Execution and Countersignature</u>. The Warrant Agent is hereby authorized to countersign and to deliver, in accordance with the terms of this Warrant Agreement, the Warrants required to be issued pursuant to the provisions of this Section 5, and the Company, whenever required by the Warrant Agent, will supply the Warrant Agent with Warrants duly executed on behalf of the Company for such purpose.

#### 6. Other Provisions Relating to Rights of Registered Holders of Warrants.

- 6.1. No Rights as Stockholder. Except as otherwise specifically provided herein, a registered holder, solely in its capacity as a holder of a Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of share capital of the Company for any purpose, nor shall anything contained in this Warrant Agreement be construed to confer upon a registered holder, solely in its capacity as the registered holder of a Warrant, any of the rights of a stockholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of stock, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the registered holder of the Warrant Shares which it is then entitled to receive upon the due exercise of a Warrant. In addition, nothing contained in this Warrant Agreement shall be construed as imposing any liabilities on a registered holder to purchase any securities (upon exercise of a Warrant or otherwise) or as a stockholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company. A Warrant does not entitle the registered holder thereof to any of the rights of a stockholder.
- 6.2. Lost, Stolen, Mutilated, or Destroyed Warrants. If any Warrant is lost, stolen, mutilated, or destroyed, the Company and the Warrant Agent may on such terms as to indemnity or otherwise as they may in their discretion impose (which shall, in the case of a mutilated Warrant, include the surrender thereof), issue a new Warrant of like denomination, tenor, and date as the Warrant so lost, stolen, mutilated, or destroyed. Any such new Warrant shall constitute a substitute contractual obligation of the Company, whether or not the allegedly lost, stolen, mutilated, or destroyed Warrant shall be at any time enforceable by anyone.
- 6.3. <u>Reservation of Common Stock</u>. The Company shall at all times reserve and keep available a number of its authorized but unissued shares of Common Stock that will be sufficient to permit the exercise in full of all outstanding Warrants issued pursuant to this Warrant Agreement.
- 6.4. <u>Noncircumvention</u>. The Company hereby covenants and agrees that the Company will not, by amendment of its corporate charter, bylaws or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, dissolution, issue or sale of securities, or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of the Warrants or this Warrant Agreement, and will at all times in good faith carry out all the provisions of the Warrants and this Warrant Agreement. Without limiting the generality of the foregoing, the Company (i) shall not increase the par value of any shares of Common Stock receivable upon the exercise of the Warrants above the Exercise Price then in effect, (ii) shall take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of Common Stock upon the exercise of the Warrants are outstanding, take all action necessary to reserve and keep available out of its authorized and unissued shares of Common Stock, solely for the purpose of effecting the exercise of the Warrants, 100% of the number of shares of Common Stock issuable upon exercise of the Warrants then outstanding (without regard to any limitations on exercise).

#### Concerning the Warrant Agent and Other Matters.

7.1. Payment of Taxes. The Company will from time to time promptly pay all taxes and charges that may be imposed upon the Company or the Warrant Agent in respect of the issuance or delivery of shares of Common Stock upon the exercise of Warrants, but the Company shall not be obligated to pay any transfer taxes in respect of the Warrants or such shares.

#### 7.2. Resignation, Consolidation, or Merger of Warrant Agent.

- 7.2.1. Appointment of Successor Warrant Agent. The Warrant Agent, or any successor to it hereafter appointed, may resign its duties and be discharged from all further duties and liabilities hereunder after giving sixty (60) days' notice in writing to the Company. If the office of the Warrant Agent becomes vacant by resignation or incapacity to act or ortherwise, the Company shall appoint in writing a successor Warrant Agent in place of the Warrant Agent. If the Company shall fail to make such appointment within a period of 30 days after it has been notified in writing of such resignation or incapacity by the Warrant Agent or by the holder of the Warrant (who shall, with such notice, submit his Warrant for inspection by the Company), then the holder of any Warrant may apply to the Supreme Court of the State of New York for the County of New York for the appointment of a successor Warrant Agent at the Company's cost. Any successor Warrant Agent, whether appointed by the Company or by such court, shall be a corporation organized and existing under the laws of the State of New York, in good standing and having its principal office in the Borough of Manhattan, City and State of New York, and authorized under such laws to exercise corporate trust powers and subject to supervision or examination by federal or state authority. After appointment, any successor Warrant Agent shall be vested with all the authority, powers, rights, immunities, duties, and obligations of its predecessor Warrant Agent with like effect as if originally named as Warrant Agent hereunder, without any further act or deed; but if for any reason it becomes necessary or appropriate, the predecessor Warrant Agent with like effect as if originally named as Warrant Agent hereunder, without any further act or deed; but if for any reason it becomes necessary or appropriate, the predecessor Warrant Agent with like effect as if originally named as Warrant Agent hereunder, without any further act or deed; but if for any reason it becomes necessary or approp
- 7.2.2. Notice of Successor Warrant Agent. In the event a successor Warrant Agent shall be appointed, the Company shall give notice thereof to the predecessor Warrant Agent and the transfer agent for the Common Stock not later than the effective date of any such appointment.
- 7.2.3. Merger or Consolidation of Warrant Agent. Any corporation into which the Warrant Agent may be merged or converted or with which it may be consolidated or any corporation resulting from any merger, conversion, or consolidation to which the Warrant Agent shall be a party, or any corporation succeeding to the business of the Warrant Agent, shall be the successor Warrant Agent under this Warrant Agreement without any further act.

#### 7.3. <u>Fees and Expenses of Warrant Agent.</u>

- 7.3.1. Remuneration. The Company agrees to pay the Warrant Agent reasonable remuneration for its services as such Warrant Agent hereunder and will reimburse the Warrant Agent upon demand for all expenditures that the Warrant Agent may reasonably incur in the execution of its duties hereunder.
- 7.3.2. Further Assurances. The Company agrees to perform, execute, acknowledge, and deliver or cause to be performed, executed, acknowledged, and delivered all such further and other acts, instruments, and assurances as may reasonably be required by the Warrant Agent for the carrying out or performing of the provisions of this Warrant Agreement.

#### 7.4. Liability of Warrant Agent.

- 7.4.1. Reliance on Company Statement. Whenever in the performance of its duties under this Warrant Agreement, the Warrant Agent shall deem it necessary or desirable that any fact or matter be proved or established by the Company prior to taking or suffering any action hereunder, such fact or matter (unless other evidence in respect thereof be herein specifically prescribed) may be deemed to be conclusively proved and established by a statement signed by the President or Chairman of the Board of the Company and delivered to the Warrant Agent. The Warrant Agent may rely upon such statement for any action taken or suffered in good faith by it pursuant to the provisions of this Warrant Agreement.
- 7.4.2. <u>Indemnity</u>. The Warrant Agent shall be liable hereunder only for its own gross negligence, willful misconduct or bad faith. The Company agrees to indemnify the Warrant Agent and save it harmless against any and all liabilities, including judgments, costs and reasonable counsel fees, for anything done or omitted by the Warrant Agent in the execution of this Warrant Agreement except as a result of the Warrant Agent's gross negligence, willful misconduct, or bad faith.
- 7.4.3. Exclusions. The Warrant Agent shall have no responsibility with respect to the validity of this Warrant Agreement or with respect to the validity or execution of any Warrant (except its countersignature thereof); nor shall it be responsible for any breach by the Company of any covenant or condition contained in this Warrant Agreement or in any Warrant; nor shall it be responsible to make calculations under 3.3.8 or any adjustments required under the provisions of Section 4 hereof or responsible for the manner, method, or amount of any such adjustment or the ascertaining of the existence of facts that would require any such adjustment; nor shall it by any act hereunder be deemed to make any representation or warranty as to the authorization or reservation of any shares of Common Stock to be issued pursuant to this Warrant Agreement or any Warrant or as to whether any shares of Common Stock will when issued be valid and fully paid and nonassessable.
- 7.5. Acceptance of Agency. The Warrant Agent hereby accepts the agency established by this Warrant Agreement and agrees to perform the same upon the terms and conditions herein set forth and among other things, shall account promptly to the Company with respect to Warrants exercised and concurrently account for, and pay to the Company, all moneys received by the Warrant Agent for the purchase of shares of Common Stock through the exercise of Warrants.
- 7.6. <u>Limitation on Liability of Warrant Agent.</u> In no event shall the Warrant Agent have any liability for any incidental, special, statutory, indirect or consequential damages, or for any loss of profits, revenue, data or cost of cover.

#### 8. Miscellaneous Provisions

- 8.1. Successors. All the covenants and provisions of this Warrant Agreement by or for the benefit of the Company or the Warrant Agent shall bind and inure to the benefit of their respective successors and assigns.
- 8.2. Notices. Any notice, statement or demand authorized by this Warrant Agreement to be given or made by the Warrant Agent or by the holder of any Warrant to or on the Company shall be sufficiently given when so delivered if by hand or overnight delivery or if sent by certified mail or private courier service within five days after deposit of such notice, postage prepaid, addressed (until another address is filed in writing by the Company with the Warrant Agent), as follows:

Pluristem Therapeutics Inc. MATAM Advanced Technology Park Building No. 20 Haifa, 31905, Israel Attn: Chief Executive Officer Any notice, statement or demand authorized by this Warrant Agreement to be given or made by the holder of any Warrant or by the Company to or on the Warrant Agent shall be sufficiently given when so delivered if by hand or overnight delivery or if sent by certified mail or private courier service within five days after deposit of such notice, postage prepaid, addressed (until another address is filed in writing by the Warrant Agent with the Company), as follows:

American Stock Transfer & Trust Company, LLC 6201 15th Avenue Brooklyn, New York 11219 Attn: Compliance Department

with a copy in each case to:

American Stock Transfer & Trust Company, LLC 6201 15th Avenue Brooklyn, New York 11219 Attn: General Counsel

and

Jefferies & Company, Inc. 520 Madison Avenue New York, New York 10022 Facsimile: (646) 619-4437 Attention: General Counsel

8.3. Applicable law. The validity, interpretation, and performance of this Warrant Agreement and of the Warrants shall be governed in all respects by the laws of the State of New York, without giving effect to conflicts of law principles that would result in the application of the substantive laws of another jurisdiction. The Company hereby agrees that any action, proceeding or claim against it arising out of or relating in any way to this Warrant Agreement shall be brought and enforced in the courts of the State of New York or the United States District Court for the Southern District of New York, and irrevocably submits to such jurisdiction, which jurisdiction shall be exclusive. The Company hereby waives any objection to such exclusive jurisdiction and that such courts represent an inconvenience forum. Any such process or summons to be served upon the Company may be served by transmitting a copy thereof by registered or certified mail, return receipt requested, postage prepaid, addressed to it at the address set forth in Section 8.2 hereof. Such mailing shall be deemed personal service and shall be legal and binding upon the Company in any action, proceeding or claim.

8.4. <u>Persons Having Rights under this Warrant Agreement.</u> Nothing in this Warrant Agreement expressed and nothing that may be implied from any of the provisions hereof is intended, or shall be construed, to confer upon, or give to, any person or corporation other than the parties hereto and the registered holders of the Warrants, any right, remedy, or claim under or by reason of this Warrant Agreement or of any covenant, condition, stipulation, promise, or agreement hereof. All covenants, conditions, stipulations, promises, and agreements contained in this Warrant Agreement shall be for the sole and exclusive benefit of the parties hereto and their successors and assigns and of the registered holders of the Warrants.

- 8.5. <u>Examination of the Warrant Agreement</u>. A copy of this Warrant Agreement shall be available at all reasonable times at the office of the Warrant Agent in the Borough of Manhattan, City and State of New York, for inspection by the registered holder of any Warrant. The Warrant Agent may require any such holder to submit his Warrant for inspection by it.
- 8.6. <u>Counterparts</u>. This Warrant Agreement may be executed in any number of original or facsimile counterparts and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument.
  - 8.7. Effect of Headings. The Section headings herein are for convenience only and are not part of this Warrant Agreement and shall not affect the interpretation thereof.
- 8.8 Amendments. This Warrant Agreement may be amended by the parties hereto without the consent of any registered holder: (i) for the purpose of curing any ambiguity or (ii) of curing, correcting or supplementing any defective provision contained herein or (iii) adding or for the purpose of changing any other provisions with respect to matters or questions arising under this Warrant Agreement as the parties may deem necessary or desirable and that the parties deem shall not materially adversely affect the interest of the registered holders. Any modifications or amendments to Section 3.3.10 shall require the written consent of all the registered holders. All other modifications or amendments, including any amendment to increase the Warrant Price or shorten the Exercise Period, shall require the written consent of the registered holders of Warrants equal to at least 67% of the Warrant Shares issuable upon exercise of all then outstanding Warrants.
- 8.9 <u>Severability</u>. This Warrant Agreement shall be deemed severable, and the invalidity or unenforceability of any term or provision hereof shall not affect the validity or enforceability of this Warrant Agreement or of any other term or provision hereof. Furthermore, in lieu of any such invalid or unenforceable term or provision, the parties hereto intend that there shall be added as a part of this Warrant Agreement a provision as similar in terms to such invalid or unenforceable provision as may be possible and be valid and enforceable.
  - 9. <u>Certain Definitions</u>. For purposes of this Warrant, the following terms shall have the following meanings:
- 9.1 "Affiliate" means, with respect to any Person, any other Person which directly or indirectly through one or more intermediaries Controls, is controlled by, or is under common control with, such Person.
- 9.2 "Business Day" means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law or executive order to remain closed.
- 9.3 "Common Stock" means (i) the Company's shares of Common Stock and (ii) any share capital into which such Common Stock shall have been changed or any share capital resulting from a reclassification of such Common Stock.
- 9.4 "Control" (including the terms "controlling", "controlled by" or "under common control with") means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

- 9.5 "Expiration Date" means the date that is the fifth year anniversary of the Issuance Date or, if such date falls on a day other than a Business Day or on which trading does not take place on the Principal Market (a "Holiday"), the next date that is not a Holiday, as the same may be extended pursuant to Section 3.3.7.
- 9.6 "Person" means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

[Signature page follows.]

 $IN\ WITNESS\ WHEREOF, this\ Warrant\ Agreement\ has\ been\ duly\ executed\ by\ the\ parties\ here to\ as\ of\ the\ day\ and\ year\ first\ above\ written.$ 

### PLURISTEM THERAPEUTICS INC.

By: <u>/s/ Yaky Yanay</u> Name: Yaky Yanay Title: Chief Financial Officer

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC

By: /s/ Michael A. Nespoli Name: Michael A. Nespoli Title: Senior Vice President

#### EXHIBIT A

WARRANT NUMBER:	
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#### PLURISTEM THERAPEUTICS INC.

#### WARRANT

THIS CERTIFIES	THAT, f	for value	received
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\_\_\_\_\_

is the registered holder of a Warrant or Warrant (the "Warrant") expiring on September 19, 2017, subject to extension in certain events ("Expiration Date"), to purchase [\_\_\_] fully paid and non-assessable share[s] of Common Stock, par value \$0.00001 per share ("Shares"), of Pluristem Therapeutics Inc., a Nevada corporation (the "Company"). The Warrant entitles the holder thereof to purchase from the Company such number of Shares of the Company at the price of \$5 per share (subject to adjustment), upon surrender of this Warrant Certificate and payment of the Warrant Price to the Warrant Agent. American Stock Transfer & Trust Company, LLC at its corporate trust department, but only subject to the conditions set forth herein and in the Warrant Agreement between the Company and American Stock Transfer & Trust Company (as may be amended from time to time, the "Warrant Agreement"). The Warrant Agreement provides that upon the occurrence of certain events the Warrant Price and the number of Shares purchasable hereunder, set forth on the face hereof, may, subject to certain conditions, be adjusted. The term "Warrant Price" as used in this Warrant Certificate refers to the price per Share at which Shares may be purchased at the time the Warrant is exercised. Capitalized terms used and not defined herein shall have the meanings set forth in the Warrant Agreement.

No fraction of a Share will be issued upon any exercise of a Warrant. If the holder of a Warrant would be entitled to receive a fraction of a Share upon any exercise of a Warrant, the Company shall, upon such exercise, pay a cash adjustment in accordance with the Warrant Agreement.

Upon any exercise of the Warrant for less than the total number of full Shares provided for herein, there shall be issued to the registered holder hereof or the registered holder's assignee a new Warrant Certificate covering the number of Shares for which the Warrant has not been exercised.

Upon surrender of the Warrant Certificate for transfer, properly endorsed with signatures properly guaranteed and accompanied by appropriate instructions for transfer, the Warrant Agent shall register the transfer. A new Warrant Certificate or Warrant Certificates evidencing in the aggregate a like number of Warrants shall be issued and the old Warrant Certificate shall be canceled.

Warrant Certificates, when surrendered to the Warrant Agent, may be transferred or exchanged in the manner and subject to the limitations provided in the Warrant Agreement, but without payment of any service charge, for another Warrant Certificates evidencing in the aggregate a like number of Warrants.

The Company and the Warrant Agent may deem and treat the registered holder as the absolute owner of this Warrant Certificate (notwithstanding any notation of ownership or other writing hereon made by anyone), for the purpose of any exercise hereof, and for all other purposes, and neither the Company nor the Warrant Agent shall be affected by any notice to the contrary.

President Secretary  COUNTERSIGNED:  AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC,
AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC,
as Warrant Agent
By: Authorized Officer

This Warrant does not entitle the registered holder to any of the rights of a stockholder of the Company.

### SUBSCRIPTION FORM

(to be executed by the registered holder in order to exercise Warrants)

ASSIGNMENT (to be executed by the registered holder in order to assign Warrants)

For Value Received,	hereby sells, assigns, and transfers unto		
(PLEASE TYPE OR PRINT NAME AND ADI	DRESS)		
(SOCIAL SECURITY OR TAX IDENTIFICA	TION NUMBER)		
and be delivered to			
(PLEASE PRINT OR TYPE NAME AND ADI	DRESS)		
	represented by this Warrant Certificate, and hereby in Company, with full power of substitution in the premises.	revocably constitutes and appoints	Attorney to transfer
Dated:		(SIGNATURE)	
	AND MUST BE GUARANTEED BY A COMMERCIAL BANK OR TR	TEN UPON THE FACE OF THIS WARRANT CERTIFICATE IN EVERY PAR UST COMPANY OR A MEMBER FIRM OF THE AMERICAN STOCK EXCHA	

Exhibit 31.1

#### 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: November 6, 2012

/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: November 6, 2012

/s/ Yaky Yanay

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

Exhibit 32.1

# 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 September 30, 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: November 6, 2012

By: /s/ Zami Aberman

Zami Aberman
Chief Executive Officer

Exhibit 32.2

# 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 September 30, 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: November 6, 2012	By: /s/ Yaky Yanay
	Yaky Yanay Chief Financial Officer