PLURISTEM THERAPEUTICS INC Form SC 13G/A February 11, 2009

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

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No. 1)*

Pluristem Therapeutics Inc.
(Name of Issuer)

Common Stock, \$0.00001 par value (Title of Class of Securities)

<u>72940R102</u> (CUSIP Number)

<u>December 31, 2008</u> (Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

" Rule 13d-1(b)

ý Rule 13d-1(c)

" Rule 13d-1(d)

*The remainder of this cover page shall be filled out for a reporting person s initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be filed for the purpose of Section 18 of the Securities Exchange Act of 1934 (Act) or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

| (1) Names of | Reporting Perso | Enable Capital Management, LLC (a) \pounds | | | |
|-------------------------|---|--|---------|--|--|
| (2) Check the | Appropriate Bo | (a) £ (b) £ | | | |
| (3) SEC Use | Only | | | | |
| (4) Citizenshi | p or Place of Org | Delaware | | | |
| NUMBER SHARES | . , | Sole Voting Power | 536,009 | | |
| BENEFICIA OWNED BY I | LLY (6) | Shared Voting Power | 0 | | |
| REPORTIN PERSON W | NG (7) | Sole Dispositive Power | 536,009 | | |
| | (8) | Shared Dispositive Power | 0 | | |
| (9) Aggrega | (9) Aggregate Amount Beneficially Owned by Each Reporting Person | | | | |
| (10) Check if | Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) | | | | |
| (11) Percent | Percent of Class Represented by Amount in Row (9) | | | | |
| (12) Type of | Type of Reporting Person (See Instructions) | | | | |
| | | 2 | | | |

| (1) Names of Reporting Pe | (1) Names of Reporting Persons. | | | | |
|-----------------------------|--|---------------|--|--|--|
| (2) Check the Appropriate | (2) Check the Appropriate Box if a Member of a Group (See Instructions) | | | | |
| (3) SEC Use Only | | | | | |
| (4) Citizenship or Place of | Organization | United States | | | |
| NUMBER OF SHARES | (5) Sole Voting Power | 536,009 | | | |
| | (6) Shared Voting Power | 0 | | | |
| | (7) Sole Dispositive Power | 536,009 | | | |
| | (8) Shared Dispositive Power | 0 | | | |
| (9) Aggregate Amount B | 536,009 | | | | |
| (10) Check if the Aggrega | 0) Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) | | | | |
| (11) Percent of Class Repr | Percent of Class Represented by Amount in Row (9) | | | | |
| (12) Type of Reporting Pe | 2) Type of Reporting Person (See Instructions) | | | | |
| | 3 | | | | |

| (1) | Names of Reporting | Enable Growth Partners, L.P. (a) £ | | | |
|-------|--|------------------------------------|--------------------------|---------|--|
| (2) | Check the Appropria | (b) £ | | | |
| (3) | SEC Use Only | | | | |
| (4) | Citizenship or Place | Delaware | | | |
| N | UMBER OF SHARES | (5) | Sole Voting Power | 536,009 | |
| | NEFICIALLY NED BY EACH | (6) | Shared Voting Power | 0 | |
| R | EPORTING RSON WITH | (7) | Sole Dispositive Power | 536,009 | |
| 1 121 | XSON WITH | (8) | Shared Dispositive Power | 0 | |
| (9) | Aggregate Amount | 536,009 | | | |
| (10) | 0) Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) | | | | |
| (11) | Percent of Class Represented by Amount in Row (9) | | | | |
| (12) | Type of Reporting | PN | | | |
| | | | Δ | | |

Item 1(a). Name of Issuer:

Pluristem Therapeutics Inc.

Item 1(b). Address of Issuer s Principal Executive Offices:

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

Item 2(a). Names of Persons Filing:

Enable Capital Management, LLC

Enable Growth Partners, L.P.

Mitchell S. Levine

Item 2(b). Address of Principal Business Office or, if none, Residence:

The principal business address of the reporting persons is One Ferry Building, Suite 255, San Francisco, CA 94111.

Item 2(c). Citizenship:

Reference is made to Item 4 of pages 2, 3 and 4 of this Schedule 13G (this Schedule), which Items are incorporated by reference herein.

Item 2(d). Title of Class of Securities:

Common Stock, \$0.00001 par value

Item 2(e). CUSIP Number:

72940R102

Item 3. If this statement is filed pursuant to §§240.13d -1(b) or 240.13d -2(b) or (c), check whether the person filing is a:

- " (a) Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
- (b) Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- " (c) Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- " (d) Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C 80a-8)
- (e) An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
- (f) An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
- (g) A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);
- " (h) A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- " (j) Group, in accordance with §240.13d-1(b)(1)(ii)(J).

5

Item 4. Ownership.

Reference is hereby made to Items 5-9 and 11 of pages 2, 3 and 4 of this Schedule, which Items are incorporated by reference herein.

The calculation of percentage of beneficial ownership in item 11 of pages 2, 3 and 4 was derived from the Issuer s Schedule 14A Proxy Statement filed with the Securities and Exchange Commission on December 29, 2008, in which the Issuer stated that the number of shares of the Issuer s common stock outstanding on December 24, 2008 was 11,458,662 shares.

Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following \underline{X} .

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Not Applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company

Not Applicable

Item 8. Identification and Classification of Members of the Group

Not Applicable

Item 9. Notice of Dissolution of Group

Not Applicable

Item 10. Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

Signature

After reasonable inquiry and to the best of my knowledge and belief, the undersigned certifies that the information set forth in this statement is true, complete and correct.

Dated: February 11, 2009 ENABLE CAPITAL MANAGEMENT, LLC

By: /s/ Mitchell S. Levine

Mitchell S. Levine, its Managing Member

ENABLE GROWTH PARTNERS, L.P. By: Enable Capital Management, LLC, its General Partner

By: /s/ Mitchell S. Levine

Mitchell S. Levine, its Managing Member

MITCHELL S. LEVINE

/s/ Mitchell S. Levine
Mitchell S. Levine

EXHIBIT INDEX

Exhibit A Joint Filing Undertaking Page 10

7

EXHIBIT A

JOINT FILING UNDERTAKING

The undersigned, being authorized thereunto, hereby execute this agreement as an exhibit to this Schedule 13G to evidence the agreement of the below-named parties, in accordance with rules promulgated pursuant to the Securities Exchange Act of 1934, to file this Schedule, as it may be amended, jointly on behalf of each of such parties.

Dated: February 11, 2009 ENABLE CAPITAL MANAGEMENT, LLC

By: /s/ Mitchell S. Levine

Mitchell S. Levine, its Managing Member

ENABLE GROWTH PARTNERS, L.P. By: Enable Capital Management, LLC, its General Partner

By: /s/ Mitchell S. Levine

Mitchell S. Levine, its Managing Member

MITCHELL S. LEVINE

/s/ Mitchell S. Levine Mitchell S. Levine