

PLURISTEM THERAPEUTICS INC

Form 8-K

April 10, 2008

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of
the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): **April 10, 2008 (April 7, 2008)**

PLURISTEM THERPUTICS INC.

(Exact name of registrant as specified in its charter)

NEVADA

001-31392

98-0351734

(State or other jurisdiction
of incorporation)

(Commission
File Number)

(IRS Employer
Identification No.)

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

31905

(Address of principal executive offices)

(Zip Code)

011 972 74 710 7171

(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 8.01 Other Events.

On April 7, 2008, we announced that the results from Fraunhofer Institute's additional pre-clinical study utilizing our proprietary PLacental eXpanded (PLX) cells in treating ischemic stroke showed statistical significance utilizing functional as well as anatomical endpoints. PLX cells are mesenchymal stromal cells (MSCs) obtained from the placenta and expanded using Pluristem's proprietary 3D PluriX technology. Fraunhofer Institute's scientists systemically injected PLX cells into spontaneously hypertensive rats that had undergone middle cerebral artery occlusion, a commonly accepted ischemic stroke model. The functional endpoints of improvement in beam walking and neurological severity score and the anatomical endpoint of reduction in infarct size reached statistical significance versus controls. The trial was conducted under the supervision of Professor Frank Emmrich, Head of the Fraunhofer Institute for Cell Therapy and Immunology (IZI), Leipzig, Germany, a branch of the Fraunhofer Society. These findings are preliminary and there can be no assurance that they will be confirmed when further experimental series are completed. Additional optimization surrounding the administration of PLX cells will be required to supply clear evidence that PLX cells may help patients with ischemic stroke.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

PLURISTEM THERPEUTICS INC.
(registrant)

Date: April 10, 2008

By: /s/ Zami Aberman

Zami Aberman
Chief Executive Officer
