PLURISTEM THERAPEUTICS INC
Form 10-K
September 21, 2010

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

FORM 10-K

(Mark One)

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended June 30, 2010

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from [ ] to [ ]

Commission file number 001-31392

PLURISTEM THERAPEUTICS INC.
(Name of registrant as specified in its charter)

Nevada	98-0351734
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
MATAM Advanced Technology Park, Building No. 20, Haifa, Israel	31905
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number 011-972-74-7107171

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, par value $0.00001	Nasdaq Capital Market

Securities registered pursuant to Section 12(g) of the Act:

None.
(Title of class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes o No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes o No x

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

Yes x No o

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

o Yes o No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. x

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

Large accelerated filer o	Accelerated filer o	Non-accelerated filer o
Smaller reporting company x		(do not check if a smaller reporting company)

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

Yes o No x

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked prices of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter.

$19,997,604

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date.

21,829,350 as of September 1, 2010

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Our financial statements are stated in thousands United States Dollars (US$) and are prepared in accordance with United States Generally Accepted Accounting Principles (U.S. GAAP).

In this annual report, unless otherwise specified, all dollar amounts are expressed in United States dollars.

As used in this annual report, the terms "we", "us", "our", “the Company”, and "Pluristem" mean Pluristem Therapeutics Inc. and our wholly owned subsidiary, unless otherwise indicated.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

The statements contained in this Annual Report on Form 10-K that are not historical facts are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 and other federal securities laws. Such forward-looking statements may be identified by, among other things, the use of forward-looking terminology such as "believes," "intends," "plans" "expects," "may," "will," "should," or "anticipates" or the negative thereof or other variations thereon or comparable terminology, and similar expressions are intended to identify forward-looking statements. We remind readers that forward-looking statements are merely predictions and therefore inherently subject to uncertainties and other factors and involve known and unknown risks that could cause the actual results, performance, levels of activity, or our achievements, or industry results, to be materially different from any future results, performance, levels of activity, or our achievements, or industry results, expressed or implied by such forward-looking statements. Such forward-looking statements appear in Item 1 – “Business” and Item 7 – “Management’s Discuss and Analysis of Financial Condition and Results of Operations,” as well as elsewhere in this Annual Report and include statements regarding the following: the expected development and potential benefits from our products in treating various medical conditions, finishing our Phase I clinical trials and entering Phase II clinical trials and achieving regulatory approvals, upgrading our 3-D bioreactor operations, developing capabilities for new clinical indications of placenta expanded cells (PLX), the potential market demand for our products, our expectations regarding our short- and long-term capital requirements, our outlook for the coming months and information with respect to any other plans and strategies for our business.

The factors discussed herein, including those risks described in Item 1A. “Risk Factors”, and expressed from time to time in our filings with the Securities and Exchange Commission could cause actual results and developments to be materially different from those expressed in or implied by such statements. The forward-looking statements are made only as of the date of this filing, and except as required by law we undertake no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

PART I

Item 1. Business.

Our Current Business

We are a bio-therapeutics company dedicated to the commercialization of non-personalized (allogeneic) cell therapy products for the treatment of several severe degenerative, ischemic and autoimmune disorders. We are developing a pipeline of products, stored ready-to-use, that are derived from human placenta, a non-controversial, non-embryonic, adult stromal cell source. The placental adherent stromal cells (ASCs) are grown in the Company's proprietary PluriX™ three-dimensional bioreactor, which imitates the natural microstructure of the body.

We were incorporated in the State of Nevada under the name "A.I. Software, Inc." on May 11, 2001. Since 2003, we own 100% of the issued and outstanding shares of a research and development company based in Israel called Pluristem, Ltd., which is our wholly owned subsidiary.

Pluristem's first product in development, PLX-PAD, is intended to improve the quality of life of millions of people suffering from peripheral artery disease (PAD). Phase I clinical trials for PLX-PAD are now in progress in Germany and the US. The Phase I study is designed to evaluate the safety of using PLX-PAD in patients with critical limb ischemia (CLI), the end stage of PAD.

We are currently focusing on clinical indication that the route of administration is intramuscular, which means that the cells are administrated locally to the muscle and not systemically. This route of administration may be applicable for several different indications, such as: PAD, CLI, intermittent claudication, neuropathic pain, wound healing and orthopedic injuries. In addition the company reported pre-clinical studies utilizing our proprietary PLX during the systemic administration in treating for multiple sclerosis, ischemic stroke, and inflammatory bowel disease (IBD).

Once we have products ready for commercialization, we will evaluate our various sale and marketing alternatives, including licensing of our technology to other companies, manufacturing and direct sales or entering into marketing collaborations.

Scientific Background

Cell therapy is an emerging and promising field within the regenerative medicine area. The characteristics and properties of the cells vary as a function of source tissue and growth conditions. The placenta provides a unique renewable uncontroversial source of non-embryonic adult cells, representing a new vision and frontier in the cell therapy field.

The use of our placenta cells for human therapy does not require tissue matching prior to administration. Thus, allows for the development of a ready to use "of the shelf" product.

Our Technology

We develop and intend to commercialize cell therapy production technologies and products. We are expanding non-controversial placental-derived ASCs via a proprietary three dimensional (3D) process, termed PluriX™, into therapeutics for a variety of degenerative, ischemic and autoimmune disorders.

Our PluriX™ Bioreactor System uses a three-dimensional system of stromal cell cultures and substrates to create an artificial physiological environment where placental stem cells (obtained after birth) can naturally grow and reproduce

outside of the human body. Our three-dimensional process enables the large scale production of reproducible high quality cell products.

We believe that the resultant PLX (PLacental eXpanded) cell efficacy may be related to the secretion of cytokines or other potent immune modulators. Furthermore, PLX cells are immune privileged and have immunomodulatory properties, thus avoiding the recipient from immunological reactions that often accompany transplantations.

Product Candidates

- PLX-PAD

We are developing PLX-PAD cells as an allogeneic therapeutic product to treat CLI which results from PAD. PLX-PAD cells are stored “ready to use” and shipped to hospitals and clinics for use as an intra-muscular treatment for the affected limb of a patient suffering from CLI. In 2008, we completed a series of pre-clinical studies showing efficacy and safety. These studies indicated a statistically significant increase in new vessel formation (angiogenesis) and blood flow in the affected limb treated with PLX-PAD cells.

Following receipt of Food and Drug Administration (FDA) and European authority approvals, we commenced enrollment of patients for our phase I clinical trials of PLX-PAD in June 2009 in Germany and in September 2009 in the US. These Phase I trials are the first time that Pluristem’s PLX-PAD cells were administered to humans.

The Phase I study was designed to evaluate the safety of PLX-PAD in patients with CLI. These open-label dose-escalation studies are being performed in parallel in Germany and U.S. The design of the studies is similar, but not identical. The clinical follow-up period for both studies is three months after treatment; however, in Germany, the patients are observed for 24 months versus 12 months in the US. Several dosing groups were evaluated, adding to a better understanding of the interaction between cell number and cell distribution.

The trial in Germany is performed at the Franziskus-Krankenhaus Institute of Berlin. A total of 15 patients were enrolled in this study. The last patient was dosed in this trial in April 2010, representing the complete patient enrollment in that country.

The trial in the US is performed at three sites: Duke University Hospital, Stanford University Hospital and the Center for Therapeutic Angiogenesis (supported by the Univ. of Alabama). A total of up to 12 adults with the disease will be included in this clinical trial in the US.

On September 14, 2010 we announced results from our Phase I clinical trials utilizing our PLX-PAD. The 3 month clinical follow-up data include 21 patients, representing 77% of the patients required to complete the Phase I trials. The results suggest that PLX-PAD is potentially safe and well tolerated.

Both trials have currently met their primary safety endpoints. Further, the administration of PLX-PAD cells did not induce an immune response in any of the patients dosed, demonstrating that injection of PLX-PAD cells is well tolerated. In addition, the Phase I trials were designed to evaluate certain efficacy parameters, and the interim results suggest that the use of our PLX-PAD product was effective according to such parameters. Such efficacy parameters do not include all parameters required under applicable regulations to determine that our PLX-PAD product is effective, which will be the subject of the next stages of the clinical trials process that we plan to conduct.

Critical Limb Ischemia

Peripheral artery occlusive disease (PAOD), also known as peripheral vascular disease (PVD) or, more commonly, PAD is a term used to describe diseases caused by the obstruction of peripheral arteries resulting from atherosclerosis or other inflammatory processes that can lead to ischemia. CLI is the severe subset and natural endpoint of PAD.

PAD and CLI are aggravated by conditions such as hypercholesterolemia, smoking and diabetes with the incidence doubling in patients with these risk factors. One system for staging peripheral artery disease severity is the Rutherford categories 1 through 6, with critical limb ischemia defined by category 4 (ischemic rest pain), category 5 (minor tissue loss), and category 6 (ulceration or gangrene). The severity of the manifestations is often a reflection of the degree of obstruction in the arterial perfusion of the extremity.

Analysis of data from the 2009 update on heart disease and stroke statistics published in the journal Circulation (Circulation. 2009;119:e21-e181. Published online before print December 15, 2008) indicates that approximately 8 million people over the age of 40 in the United States are with afflicted with PAD. PAD increases significantly with age, rising to as high as approximately 20% of the population of those over the age of 70, which has resulted in a growing market for therapies intended to treat this disorder. According to The Sage Group Report of April 17, 2007 an estimated 2 million people in the U.S. have CLI. Reflecting the ageing population, this number is projected to grow to almost 2.8 million by 2020. However, if the prevalence of diabetes continues to increase, there could be over 3.5 million cases of CLI by 2020.

- Other product candidates

Additionally we have reported favorable results administering PLX cells in several indications, the table below summaries the status of these studies:

Product	For the treatment of	Status
PLX-ORTHO	Orthopedic indications	Pre-clinical
PLX-NEURO	Neuropathic and inflammatory pain	Pre-clinical
PLX-IBD	Inflammatory bowel disease	Pre- Clinical
PLX-STROKE	Ischemic stroke	Pre- Clinical
PLX-BMT	Bone marrow transplantation	Pre- Clinical
PLX-MS	Multiple sclerosis	Proof of concept

Intellectual Property

Our success will depend in part on our ability to protect our technology and products with patents. Our technology is patented in the U.S., Australia, Russia, Mexico, China, Hong Kong, India, New Zealand, Europe and South Africa. The earliest of these patents will expire in 2020. In addition, we have patents pending in Canada, Japan and other countries.

The patents included in our portfolio address the composition, processes and therapeutic use of adherent stromal cells. We are committed to protecting our intellectual property position and to aggressively pursue our patent portfolio.

Through our experience with ASC-based product development, we have developed expertise and know-how in this field. We have built the ability to manufacture clinical grade ASCs in-house. To protect this non-patentable know-how, our policies require confidentiality agreements with our employees, consultants, contractors, manufacturers and advisors. These agreements generally provide for protection of confidential information, restrictions on the use of materials and assignment of inventions conceived during the course of performance for us. These agreements might not effectively prevent disclosure of our confidential information.

We fully own our intellectual property and we have no obligations to pay royalties to any third party, except for royalties to the Office of Chief Scientist (the “OCS”) (see note 6D in our audited consolidated financial statements for fiscal 2010 included elsewhere in this Form 10-K).

Research and Development

We spent on research and development $4,301,000 and $3,141,000 in fiscal year 2010 and 2009, respectively.

Foundational Research. Our initial technology, the PluriX™ Bioreactor system, was developed by our former Chief Technology Officer, Dr. Shai Meretzki of the Technion - Israel Institute of Technology's Rappaport Faculty of

Medicine. Dr. Meretzki also worked in close collaboration with Professor Dov Zipori and Dr. Avinoam Kadouri of the Weizmann Institute of Science. Professor Zipori specializes in cultures and stromal cells and Dr. Kadouri specializes in the planning and creation of bioreactors. This technology was further developed by our research and development team.

Ongoing Research and Development Plan.

In July 2007, we entered into a five year collaborative research agreement with the Center for Regenerative Therapies at Charite University Hospital of Berlin (BCRT). Pluristem and BCRT are collaborating on a variety of indications utilizing adherent stromal cells derived from the placenta that have been expanded in the Company's proprietary bioreactor. The initial successful project collaboration was for developing and characterizing the mechanism of action of the PLX-PAD cells in allogeneic therapeutic product to treat CLI, which results from peripheral artery disease PAD. According to the agreement, we will be the exclusive owner of the technology and any products produced as a result of the collaboration. We plan to conduct several additional pre-clinical trials in collaboration with the BCRT. Our research and development facilities are in Haifa, Israel. The facility has been approved as a Good Manufacturing Practices (GMP) standard site for the purpose of manufacturing PLX cells by an inspector from the European Medicines Agency (EMA). In addition, the FDA approved the design of the clean room. The research and development facilities include 13,800 square feet in total.

We receive the placentas used for our research activities from hospitals in Israel. Any medical waste related to the use of placentas is treated in compliance with environmental laws and standards.

Government Regulation

The development, manufacture, commercialization and reimbursement of our cell therapy product candidates are subject to the laws and regulations of governmental authorities in the U.S. and the European Union as well as other countries in which our products will be marketed in the future. Specifically, in the U.S., the FDA and in Europe the EMA, among other activities, regulate new product approvals to establish the safety and efficacy of these products. Furthermore, various governmental statutes and regulations also govern or influence testing, manufacturing, safety, labeling, storage and record keeping related to such products and their marketing. Governments in other countries have similar requirements for testing and marketing.

The process of obtaining these approvals and the subsequent compliance with appropriate statutes and regulations require the expenditure of substantial time and money. This process takes a number of years and the expenditure of significant resources. There can be no assurance that our product candidates will ultimately receive regulatory approval.

Regulatory Process in the United States

Our product candidates are subject to regulation as biological products under the Public Health Service Act and the Food, Drug and Cosmetic Act. The FDA generally requires the following steps for pre-market approval or licensure of a new biological product:

- Pre-clinical laboratory and animal tests conducted in compliance with the Good Laboratory Practice, or GLP, requirements to assess a drug's biological activity and to identify potential safety problems, and to characterize and document the product's chemistry, manufacturing controls, formulation, and stability.

- Submission to the FDA of an Investigational New Drug, or IND application, which must become effective before clinical testing in humans can begin;

- Obtaining approval of Institutional Review Boards, or IRBs, of research institutions or other clinical sites to introduce the biologic drug candidate into humans in clinical trials;

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Conducting adequate and well-controlled human clinical trials to establish the safety and efficacy of the product for its intended indication conducted in compliance with Good Clinical Practice, or GCP, requirements;

- Compliance with current Good Manufacturing Practices, or cGMP regulations and standards;
- Submission to the FDA of a Biologics License Application, or BLA, for marketing that includes adequate results of pre-clinical testing and clinical trials;
- FDA reviews the marketing application in order to determine, among other things, whether the product is safe, effective and potent for its intended uses; and
- Obtaining FDA approval of the BLA, including inspection and approval of the product manufacturing facility as compliant with cGMP requirements, prior to any commercial sale or shipment of the pharmaceutical agent. The FDA may also require post-marketing testing and surveillance of approved products, or place other conditions on the approvals.

Regulatory Process in Europe

The European Union (EU) has approved a regulation specific to cell and tissue products and our PLX-PAD cell therapy product candidate is regulated under this Advanced Therapy Medicinal Product (ATMP) regulation.

For products that are regulated as an ATMP, the EU Directive requires:

- Compliance with current Good Manufacturing Practices, or cGMP regulations and standards, pre-clinical laboratory and animal testing;

- Filing a Clinical Trial Application (CTA) with the various member states or a centralized procedure; Voluntary Harmonisation Procedure (VHP), a procedure which makes it possible to obtain a coordinated assessment of an application for a clinical trial that is to take place in several European countries. Obtaining approval of Ethic Committees of research institutions or other clinical sites to introduce the biologic drug candidate into humans in clinical trials;

- Adequate and well-controlled clinical trials to establish the safety and efficacy of the product for its intended use; and

- Submission to EMA for a Marketing Authorization (MA); Review and approval of the MAA (Marketing Authorization Application).

Clinical trials:

Typically, both in the U.S. and the European Union, clinical testing involves a three-phase process although the phases may overlap. In Phase I, clinical trials are conducted with a small number of healthy volunteers or patients and are designed to provide information about product safety and to evaluate the pattern of drug distribution and metabolism within the body. In Phase II, clinical trials are conducted with groups of patients afflicted with a specific disease in order to determine preliminary efficacy, optimal dosages and expanded evidence of safety. In some cases, an initial trial is conducted in diseased patients to assess both preliminary efficacy and preliminary safety and patterns of drug metabolism and distribution, in which case it is referred to as a Phase I/II trial. Phase III clinical trials are generally large-scale, multi-center, comparative trials conducted with patients afflicted with a target disease in order to provide statistically valid proof of efficacy, as well as safety and potency. In some circumstances, the FDA or EMA may require Phase IV or post-marketing trials if it feels that additional information needs to be collected about the drug after it is on the market.

During all phases of clinical development, regulatory agencies require extensive monitoring and auditing of all clinical activities, clinical data and clinical trial investigators. An agency may, at its discretion, re-evaluate, alter, suspend, or terminate the testing based upon the data which have been accumulated to that point and its assessment of the risk/benefit ratio to the patient. Monitoring all aspects of the study to minimize risks is a continuing process. All adverse events must be reported to the FDA or EMA.

Employees

We presently employ a total of 44 full-time employees and 4 part-time employees, of whom 38 full-time employees and 3 part-time employees are engaged in research.

Competition

The cellular therapeutics industry, of which we are a part, is subject to technological changes that can be rapid and intense. We have faced, and will continue to face, intense competition from biotechnology, pharmaceutical and biopharmaceutical companies, academic and research institutions and governmental agencies engaged in cellular therapeutic and drug discovery activities or funding, both in the United States and internationally. Some of these competitors are pursuing the development of cellular therapeutics, drugs and other therapies that target the same diseases and conditions that we target in our clinical and pre-clinical programs.

We are aware of many companies working in this area, including: Osiris Therapeutics, Aastrom Biosciences, Athersys, Aldagen, Cytori Therapeutics, Gamida Cell, Geron, Mesoblast and Celgene. We expect to compete based upon, among other things, our intellectual property portfolio, our manufacturing efficiencies and the efficacy of our products. Our ability to compete successfully will depend on our continued ability to attract and retain experienced and skilled executive, scientific and clinical development personnel to identify and develop viable cellular therapeutic candidates and exploit these products commercially.

Item 1A. Risk Factors.

The following risk factors, among others, could affect our actual results of operations and could cause our actual results to differ materially from those expressed in forward-looking statements made by us. These forward-looking statements are based on current expectations and except as required by law we assume no obligation to update this information. You should carefully consider the risks described below and elsewhere in this annual report before making an investment decision. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. Our common stock is considered speculative and the trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment. The following risk factors are not the only risk factors facing our Company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business.

We have not earned any revenues since our incorporation and only have a limited operating history in our current business of developing and commercializing stem cell production technology, which raise doubts about our ability to continue as a going concern.

We have a limited operating history in our current business of developing and commercializing stem cell production technology and must be considered in the development stage. We have not generated any revenues since our inception and we will, in all likelihood, continue to incur operating expenses without significant revenues until we successfully develop our stem cell production technology and commercialize our cell therapy products. Our primary source of funds has been the sale of our common stock and government grants. We cannot give assurances that we will be able to generate any significant revenues or income. These circumstances make us dependent on additional financial support until profitability is achieved. There is no assurance that we will ever be profitable or that we will be able to continue as a going concern as is noted in the notes to our consolidated financial statements for the year ended June 30, 2010.

Our independent registered public accounting firm’s report states that there is a substantial doubt that we will be able to continue as a going concern.

Our independent registered public accounting firm, Kost, Forer, Gabbay & Kassierer a Member of Ernst & Young Global, state in their audit report attached to our audited consolidated financial statements for the fiscal years that ended June 30, 2010 and 2009 that since we are an exploration stage company, we have no established source of revenue, and are dependent on our ability to raise capital from shareholders and other sources to sustain operations, there is a substantial doubt that we will be able to continue as a going concern. There can be no assurance that acceptable financing to fund our ongoing operations can be obtained on suitable terms, if at all. If we are unable to obtain the financing necessary to support our operations, we may be unable to continue as a going concern. In that event, we may be forced to cease operations and our stockholders could lose their entire investment in our company.

Our likelihood of profitability depends on our ability to develop and commercialize products based on our stem cell production technology, which is currently in the development stage. If we are unable to complete the development and commercialization of our stem cell products successfully, our likelihood of profitability will be limited severely.

We are engaged in the business of developing cell therapy products. We have not realized a profit from our operations to date and there is little likelihood that we will realize any profits in the short or medium term. Any profitability in the future from our Company's business will be dependent upon successful commercialization of our potential cell therapy products, which will require significant additional research and development as well as substantial clinical trials.

If we are not able to successfully develop and commercialize our cell therapy product candidates and obtain the necessary regulatory approvals, we may not generate sufficient revenues to continue our business operations.

Our early stage cell therapy product candidates may fail to perform as we expect. Moreover even if our cell therapy product candidates will successfully perform as expected, in later stages of development may fail to show the desired safety and efficacy traits despite having progressed successfully through pre-clinical or initial clinical testing. We will need to devote significant additional research and development, financial resources and personnel to develop commercially viable products and obtain the necessary regulatory approvals.

If our cell therapy product candidates do not prove to be safe and efficacious in clinical trials, we will not obtain the required regulatory approvals. If we fail to obtain such approvals, we may not generate sufficient revenues to continue our business operations.

Even if we obtain regulatory approval of a product, that approval may be subject to limitations on the indicated uses for which it may be marketed. Even after granting regulatory approval, the FDA and regulatory agencies in other countries continue to review and inspect marketed products, manufacturers and manufacturing facilities, which may create additional regulatory burdens. Later discovery of previously unknown problems with a product, manufacturer or facility, may result in restrictions on the product or manufacturer, including a withdrawal of the product from the market. Further, regulatory agencies may establish additional regulations that could prevent or delay regulatory approval of our products.

We cannot market and sell our cell therapy product candidates in the United States or Europe or in other countries if we fail to obtain the necessary regulatory approvals or licensure.

We cannot sell our cell therapy product candidates until regulatory agencies grant marketing approval, or licensure. The process of obtaining regulatory approval is lengthy, expensive and uncertain. It is likely to take several years to obtain the required regulatory approvals for our cell therapy product candidates, or we may never gain the necessary approvals. Any difficulties that we encounter in obtaining regulatory approval may have a substantial adverse impact on our operations and cause our stock price to decline significantly.

To obtain marketing approvals in the United States and Europe for cell therapy product candidates we must, among other requirements, complete carefully controlled and well-designed clinical trials sufficient to demonstrate to the FDA and the EMA that the cell therapy product candidates is safe and effective for each disease for which we seek approval. So far, we are conducting Phase I clinical trials for our PLX-PAD product, which is our only product that is the subject to clinical trials. Several factors could prevent completion or cause significant delay of these trials, including an inability to enroll the required number of patients or failure to demonstrate adequately that cell therapy product candidates are safe, effective and potent for use in humans. Negative or inconclusive results from or adverse medical events during a clinical trial could cause the clinical trial to be repeated or a program to be terminated, even if other studies or trials relating to the program are successful. The FDA or the EMA can place a clinical trial on hold if, among other reasons, it finds that patients enrolled in the trial are or would be exposed to an unreasonable and significant risk of illness or injury. If safety concerns develop, we, the FDA, or the EMA could stop our trials before completion.

If we encounter problems or delays in the research and development of our potential cell therapy products, we may not be able to raise sufficient capital to finance our operation during the period required to resolve such problems or delays.

Our cell therapy products are currently in the development stage and we anticipate that we will continue to incur operating expenses without significant revenues until we have successfully completed all necessary research and

clinical trials. We, and any of our potential collaborators, may encounter problems and delays relating to research and development, regulatory approval and intellectual property rights of our technology. Our research and development programs may not be successful, and our cell culture technology may not facilitate the production of cells outside the human body with the expected result. Our cell therapy products may not prove to be safe and efficacious in clinical trials. If any of these events occur, we may not have adequate resources to continue operations for the period required to resolve the issue delaying commercialization and we may not be able to raise capital to finance our continued operation during the period required for resolution of that issue. Accordingly, we may be forced to discontinue or suspend our operations.

If we are not able to conduct our clinical trials properly and on schedule, marketing approval by FDA, EMA and other regulatory authorities may be delayed or denied.

The completion of our clinical trials may be delayed or terminated for many reasons, including, but not limited to, if:

- the FDA or the EMA does not grant permission to proceed and places the trial on clinical hold;
- subjects do not enroll in our trials at the rate we expect;
- subjects experience an unacceptable rate or severity of adverse side effects;
- third-party clinical investigators do not perform our clinical trials on our anticipated schedule or consistent with the clinical trial protocol, Good Clinical Practice and regulatory requirements, or other third parties do not perform data collection and analysis in a timely or accurate manner;
- inspections of clinical trial sites by the FDA, EMA, or Institutional Review Boards (IRBs) of research institutions participating in our clinical trials find regulatory violations that require us to undertake corrective action, suspend or terminate one or more sites, or prohibit us from using some or all of the data in support of our marketing applications; or
- one or more IRBs suspends or terminates the trial at an investigational site, precludes enrollment of additional subjects, or withdraws its approval of the trial.

Our development costs will increase if we have material delays in our clinical trials, or if we are required to modify, suspend, terminate or repeat a clinical trial. If we are unable to conduct our clinical trials properly and on schedule, marketing approval may be delayed or denied by the FDA or the EMA.

We may not be able to secure and maintain research institutions to conduct our clinical trials.

We rely on research institutions to conduct our clinical trials. Specifically, the limited number of centers experienced with cell therapy products candidates heightens our dependence on such research institutions. Our reliance upon research institutions, including hospitals and clinics, provides us with less control over the timing and cost of clinical trials and the ability to recruit subjects. If we are unable to reach agreement with suitable research institutions on acceptable terms, or if any resulting agreement is terminated, we may be unable to quickly replace the research institution with another qualified institution on acceptable terms. We may not be able to secure and maintain suitable research institutions to conduct our clinical trials.

We need to raise additional financing to support the research and development of our cell therapy products and our products in the future but we cannot be sure we will be able to obtain additional financing on terms favourable to us when needed. If we are unable to obtain additional financing to meet our needs, our operations may be adversely affected or terminated.

Our ability to continue to develop and commercialize our potential cell therapy products is dependent upon our ability to raise significant additional financing when needed. If we are unable to obtain such financing, we will not be able to fully develop our technology and commercialize our cell therapy products. Our future capital requirements will depend upon many factors, including:

- continued scientific progress in our research and development programs;

- costs and timing of conducting clinical trials and seeking regulatory approvals and patent prosecutions;
- competing technological and market developments;

- our ability to establish additional collaborative relationships; and
- the effect of commercialization activities and facility expansions if and as required.

We have limited financial resources and, to date, negative cash flow from operations. Although we anticipate that our existing capital resources will be adequate to satisfy our working capital and capital expenditure requirements until at least the first quarter of calendar year 2011, we will need to raise additional funds in the near future in order to satisfy our working capital and capital expenditure requirements. Therefore, we are dependent on our ability to sell our common stock for funds, receive grants or to otherwise raise capital. There can be no assurance that we will be able to obtain financing on that basis in light of the market demand for our securities, the state of financial markets generally, and other relevant factors. Any sale of our common stock in the future will result in dilution to existing stockholders. Furthermore, there is no assurance that we will not incur debt in the future, that we will have sufficient funds to repay our future indebtedness, or that we will not default on our future debts, jeopardizing our business viability. Finally, we may not be able to borrow or raise additional capital in the future to meet our needs or to otherwise provide the capital necessary to conduct the development and commercialization of our potential cell therapy products, which could result in the loss of some or all of one's investment in our common stock.

We cannot guarantee continuation of government programs and tax benefits.

We have received certain Israeli government approval under certain programs and may in the future utilize certain tax benefits in Israel by virtue of these programs. To remain eligible for such tax benefits, we must continue to meet certain conditions. If we fail to comply with these conditions in the future, the benefits we receive could be canceled and we may pay certain taxes. We cannot guarantee that these programs and tax benefits will be continued in the future, at their current levels or at all. If these programs and tax benefits are ended, our business, financial condition and results of operations could be negatively affected.

Because we received grants from the Israeli Office of the Chief Scientist, we are subject to ongoing restrictions.

We received royalty-bearing grants from the Office of the Chief Scientist of the Israeli Ministry of Industry, Trade and Labor, or the Chief Scientist, for research and development programs that meet specified criteria. The terms of the Chief Scientist's grants limit our ability to transfer know-how developed under an approved research and development program outside of Israel, regardless of whether the royalties were fully paid. Any non-Israeli citizen, resident or entity that, among other things, becomes a holder of 5% or more of our share capital or voting rights, is entitled to appoint one or more of our directors or our chief executive officer, serves as a director of our company or as our chief executive officer is generally required to notify the same to the Chief Scientist and to undertake to observe the law governing the grant programs of the Chief Scientist, the principal restrictions of which are the transferability limits described above.

We are exposed to fluctuations in currency exchange rates.

A significant portion of our business is conducted outside the United States. Therefore, we are exposed to currency exchange fluctuations in other currencies such as the Euro and the New Israeli Shekel (NIS). Moreover, a portion of our expenses in Israel and Europe are paid in NIS and Euros, respectively, which subjects us to the risks of foreign currency fluctuations. Our primary expenses paid in NIS are employee salaries, fees for consultants and subcontractors and lease payments on our Israeli facilities.

The dollar cost of our operations in Israel will increase to the extent increases in the rate of inflation in Israel are not offset by a devaluation of the NIS in relation to the dollar, which would harm our results of operations.

Since a considerable portion of our expenses such as employees' salaries are linked to an extent to the rate of inflation in Israel, the dollar cost of our operations is influenced by the extent to which any increase in the rate of inflation in Israel is or is not offset by the devaluation of the NIS in relation to the dollar. As a result, we are exposed to the risk that the NIS, after adjustment for inflation in Israel, will appreciate in relation to the dollar. In that event, the dollar cost of our operations in Israel will increase and our dollar-measured results of operations will be adversely affected. During the past few years inflation-adjusted NIS appreciated against the dollar, which raised the dollar cost of our Israeli operations. We cannot predict whether the NIS will appreciate against the dollar or vice versa in the future. Any increase in the rate of inflation in Israel, unless the increase is offset on a timely basis by a devaluation of the NIS in relation to the dollar, will increase labor and other costs, which will increase the dollar cost of our operations in Israel and harm our results of operations.

If we fail to obtain and maintain required regulatory approvals for our potential cell therapy products, our ability to commercialize our potential cell therapy products will be limited severely.

Once our potential cell therapy products are fully developed, we intend to market our potential cell therapy products primarily in the United States and Europe. We must obtain FDA and EMA approval of our technology and potential cell therapy products before commercialization of our potential cell therapy products may commence in the United States and similar agencies in Europe. We may also be required to obtain additional approvals from foreign regulatory authorities to commence our marketing activities in those jurisdictions. If we cannot demonstrate the safety, reliability and efficacy of our cells, including long-term sustained cell engraftment, or if one or more patients die or suffer severe complications in clinical trials, the FDA or EMA and/or other regulatory authorities could delay or withhold regulatory approval of our technology and potential products.

Furthermore, even if we obtain regulatory approval for our cell therapy products, that approval may be subject to limitations on the indicated uses for which they may be marketed. Even after granting regulatory approval, the FDA, the EMA, other regulatory agencies, and governments in other countries will continue to review and inspect marketed products, manufacturers and manufacturing facilities. Later discovery of previously unknown problems with a product, manufacturer or facility may result in restrictions on the product or manufacturer, including a withdrawal of the product from the market. Further, governmental regulatory agencies may establish additional regulations, which could prevent or delay regulatory approval of our technology and our potential cell therapy products.

We have limited experience in conducting and managing human trials. If we fail in the conducting of such trials, our business will be materially harmed.

Even though we have recruited employees who are experienced in managing and conducting clinical trials, we have limited experience in this area. We will need to expand our experience and rely on consulting in order to obtain regulatory approvals for our therapeutic product candidates. The failure to successfully conduct clinical trials could materially harm our business.

The trend towards consolidation in the pharmaceutical and biotechnology industries may adversely affect us.

There is a trend towards consolidation in the pharmaceutical and biotechnology industries. This consolidation trend may result in the remaining companies having greater financial resources and discovery technological capabilities, thus intensifying competition in these industries. This trend may also result in fewer potential collaborators or licensees for our therapeutic product candidates. Also, if a consolidating company is already doing business with our competitors, we may lose existing licensees or collaborators as a result of such consolidation.

This trend may adversely affect our ability to enter into agreements for the development and commercialization of our product candidates, and as a result may harm our business.

Our product development programs are based on novel technologies and are inherently risky.

We are subject to the risks of failure inherent in the development of products based on new technologies. The novel nature of our therapeutics creates significant challenges in regards to product development and optimization, manufacturing, government regulation, third-party reimbursement and market acceptance. For example, the FDA or the EMA has relatively limited experience with stem cell therapies. None has been approved by them for commercial sale, and the pathway to regulatory approval for our cell therapy product candidates may accordingly be more complex and lengthy. As a result, the development and commercialization pathway for our therapies may be subject to increased uncertainty, as compared to the pathway for new conventional drugs.

There are no FDA or EMA approved treatments for some of the disease indications we are pursuing. This could complicate and delay FDA or EMA approval of our biologic drug candidates.

There are no drugs or therapies currently approved with for treatment of PAD using allogeneic cell therapy products. As a result, the clinical efficacy endpoints, or the criteria to measure the intended results of treatment may be difficult to determine. In addition, patients battling PAD and who, therefore, are candidates for treatment with PLX-PAD, typically suffer from complications and disorders that may bring to amputation and other complications prior to the completion of the study. This resulting reduction in the number of patients available for evaluation at the end of the study may make it more difficult for us to demonstrate efficacy, as necessary to obtain FDA or EMA approval to market our products.

Our cell therapy drug candidates represent new classes of therapy that the marketplace may not understand or accept.

Even if we successfully develop and obtain regulatory approval for our biologic drug candidates, the market may not understand or accept them. We are developing cell therapy product candidates that represent novel treatments and will compete with a number of more conventional products and therapies manufactured and marketed by others, including major pharmaceutical companies. The degree of market acceptance of any of our developed and potential products will depend on a number of factors, including:

the clinical safety and effectiveness of our cell therapy drug candidates and their perceived advantage over alternative treatment methods;

adverse events involving our cell therapy product candidates or the products or product candidates of others that are stem cell based; and

the cost of our products and the reimbursement policies of government and third-party payors.

If the health care community does not accept our potential products for any of the foregoing reasons, or for any other reason, it could affect our sales, having a material adverse effect on our business, financial condition and results of operations.

We are dependent upon third-party suppliers for raw materials needed for the manufacture; if any of these third parties fail or are unable to perform in a timely manner, our ability to manufacture and deliver will be compromised.

In order to produce our cell therapy product candidates, we require certain raw of materials in addition to the placenta used in our manufacturing process. These items must be manufactured and supplied to us in sufficient quantities and in compliance with GMP. To meet these requirements, we have entered into supply agreements with firms that manufacture these raw materials to GMP standards. Our requirements for these items are expected to increase if and when we transition to the manufacture of commercial quantities of our biologic drug candidates.

In addition, as we proceed with our clinical trial efforts, we must be able to continuously demonstrate to the FDA and the EMA, that we can manufacture our cell therapy product candidates with consistent characteristics. Accordingly, we are materially dependent on these suppliers for supply of GMP-grade components of consistent quality. Our ability to complete ongoing clinical trials may be negatively affected in the event that we are forced to seek and validate a replacement source for any of these critical components.

If our processing and storage facility or our clinical manufacturing facilities are damaged or destroyed, our business and prospects would be negatively affected.

If our manufacturing and storage facility or the equipment in the facility were to be significantly damaged or destroyed, we could suffer a loss of some or all of the stored units of our cell therapy drug candidates and it would force us to delay our clinical trial processes. We have a clinical manufacturing facility located in Haifa, Israel. If this facility or the equipment in it is significantly damaged or destroyed, we may not be able to quickly or inexpensively replace our manufacturing capacity.

Even if we obtain regulatory approvals to commercialize our cell therapy products, we may encounter a lack of commercial acceptance of our cell therapy products, which would impair the profitability of our business.

Our research and development efforts are primarily directed toward obtaining regulatory approval for our potential cell therapy products. Current methods of stem cell collection and use have been widely practiced for a number of years, and our technology and products may not be accepted by the marketplace as readily as these or other competing processes and methodologies. Additionally, our products may not be employed in all potential applications being investigated, and any reduction in applications would limit the market acceptance of our technology and our potential revenues. As a result, even if we obtain all required regulatory approvals, we cannot be certain that our potential cell therapy products will be adopted at a level that would allow us to operate profitably.

If we do not keep pace with our competitors and with technological and market changes, our technology and products may become obsolete and our business may suffer.

The cellular therapeutics industry, of which we are a part, is very competitive and is subject to technological changes that can be rapid and intense. We have faced, and will continue to face, intense competition from biotechnology, pharmaceutical and biopharmaceutical companies, academic and research institutions and governmental agencies engaged in cellular therapeutic and drug discovery activities or funding, both in the United States and internationally. Some of these competitors are pursuing the development of cellular therapeutics, drugs and other therapies that target the same diseases and conditions that we target in our clinical and pre-clinical programs.

Many of our competitors have significantly greater resources, more product candidates and have developed product candidates and processes that directly compete with our products. Our competitors may have developed, or could develop in the future, new products that compete with our products or even render our products obsolete.

We depend to a significant extent on certain key personnel, the loss of any of whom may materially and adversely affect our company.

Our success depends on a significant extent to the continued services of certain highly qualified scientific and management personnel, in particular, Zami Aberman, our Chief Executive Officer, and Yaky Yanay, our Chief Financial Officer. We face competition for qualified personnel from numerous industry sources, and there can be no assurance that we will be able to attract and retain qualified personnel on acceptable terms. The loss of service of any of our key personnel could have a material adverse effect on our operations or financial condition. In the event of the loss of services of such personnel, no assurance can be given that we will be able to obtain the services of adequate replacement personnel. We do not maintain key person insurance on the lives of any of our officers or employees.

The patent approval process is complex and we cannot be sure that our pending patent applications or future patent applications will be approved.

The patent approval process is complex and results are therefore highly uncertain. No assurance can be given that any of our pending patent applications or future patent applications will be approved, that the scope of any patent protection granted will exclude competitors or provide us with competitive advantages, that any of the patents that have been or may be issued to us will be held valid if subsequently challenged, or that other parties will not claim rights to or ownership of our patents or other proprietary rights that we hold. Furthermore, there can be no assurance that others have not developed or will not develop similar products, duplicate any of our technology or products or design around any patents that have been or may be issued to us or any future licensors. Since patent applications in the United States and in Europe are not publicly disclosed until patents are issued, there can be no assurance that others did not first file applications for products covered by our pending patent applications , nor can we be certain that we will not infringe any patents that may be issued to others pursuant to such applications.

Our success depends in large part on our ability to develop and protect our technology and our cell therapy products. If our patents and proprietary rights agreements do not provide sufficient protection for our technology and our cell therapy products, our business and competitive position will suffer.

Our success will also depend in part on our ability to develop our technology and commercialize cell therapy products without infringing the proprietary rights of others. We have not conducted full freedom of use patent searches and no assurance can be given that patents do not exist or could not be filed which would have an adverse affect on our ability to develop our technology or maintain our competitive position with respect to our potential cell therapy products. If our technology components, devices, designs, products, processes or other subject matter are claimed under other existing United States or foreign patents or are otherwise protected by third party proprietary rights, we may be subject to infringement actions. In such event, we may challenge the validity of such patents or other proprietary rights or we may be required to obtain licenses from such companies in order to develop, manufacture or market our technology or products. There can be no assurances that we would be able to obtain such licenses or that such licenses, if available, could be obtained on commercially reasonable terms. Furthermore, the failure to either develop a commercially viable alternative or obtain such licenses could result in delays in marketing our proposed products or the inability to proceed with the development, manufacture or sale of products requiring such licenses, which could have a material adverse affect on our business, financial condition and results of operations. If we are required to defend ourselves against charges of patent infringement or to protect our proprietary rights against third parties, substantial costs will be incurred regardless of whether we are successful. Such proceedings are typically protracted with no certainty of success. An adverse outcome could subject us to significant liabilities to third parties and force us to curtail or cease our development of our technology and the commercialization our potential cell therapy products.

We must further protect and develop our technology and products in order to become a profitable company.

The initial patent underlying our technology will expire in approximately 2020. If we do not complete the development of our technology and products in development by then, or to create additional sufficient layers of patents, other companies may use the technology to develop competing products. If this happens, we would likely lose our competitive position and our business would likely suffer.

Furthermore, the scope of our patents may not be sufficiently broad to offer meaningful protection. In addition, our patents could be successfully challenged, invalidated or circumvented so that our patent rights would not create an effective competitive barrier. We also intend to seek patent protection for any of our potential cell therapy products once we have completed their development.

We also rely on trade secrets and unpatentable know-how that we seek to protect, in part, by confidentiality agreements with our employees, consultants, suppliers and licensees. These agreements may be breached, and we might not have adequate remedies for any breach. If this were to occur, our business and competitive position would suffer.

Potential product liability claims could adversely affect our future earnings and financial condition.

We face an inherent business risk of exposure to product liability claims in the event that the use of our products results in adverse affects. As a result, we may incur significant product liability exposure. We may not be able to maintain adequate levels of insurance at reasonable cost and/or reasonable terms. Excessive insurance costs or uninsured claims would add to our future operating expenses and adversely affect our financial condition.

Our principal research and development facilities are located in Israel and the unstable military and political conditions of Israel may cause interruption or suspension of our business operations without warning.

Our principal research and development facilities are located in Israel. As a result, we are directly influenced by the political, economic and military conditions affecting Israel. Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its Arab neighbors. Acts of random terrorism periodically occur which could affect our operations or personnel.

In addition, Israeli-based companies and companies doing business with Israel, have been the subject of an economic boycott by members of the Arab League and certain other predominantly Muslim countries since Israel's establishment. Although Israel has entered into various agreements with certain Arab countries and the Palestinian Authority, and various declarations have been signed in connection with efforts to resolve some of the economic and political problems in the Middle East, we cannot predict whether or in what manner these problems will be resolved. Wars and acts of terrorism have resulted in significant damage to the Israeli economy, including reducing the level of foreign and local investment.

Furthermore, certain of our officers and employees may be obligated to perform annual reserve duty in the Israel Defense Forces and are subject to being called up for active military duty at any time. All Israeli male citizens who have served in the army are subject to an obligation to perform reserve duty until they are between 40 and 49 years old, depending upon the nature of their military service.

Although our internal control over financial reporting was considered effective as of June 30, 2010, there is no assurance that our internal control over financial reporting will continue to be effective in the future, which could result in our financial statements being unreliable, government investigation or loss of investor confidence in our financial reports.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, we are required to furnish an annual report by our management assessing the effectiveness of our internal control over financial reporting. This assessment must include disclosure of any material weaknesses in our internal control over financial reporting identified by management. Management's report as of the end of fiscal year 2010 concluded that our internal control over financial reporting was effective. There is, however, no assurance that we will be able to maintain such effective internal control over financial reporting in the future. Ineffective internal control over financial reporting can result in errors or other problems in our financial statements. In addition, our internal control over financial reporting is not required to be, and has not been, audited by our independent registered public accounting firm. In the future, if we are unable to assert that our internal controls are effective, our investors could lose confidence in the accuracy and completeness of our financial reports, which in turn could cause our stock price to decline. Failure to maintain effective internal control over financial reporting could also result in investigation or sanctions by regulatory authorities.

Because some of our officers and directors are located in non-U.S. jurisdictions, you may have no effective recourse against the management for misconduct and may not be able to enforce judgment and civil liabilities against our officers, directors, experts and agents.

Most of our directors and officers are nationals and/or residents of countries other than the United States, and all or a substantial portion of their assets are located outside the United States. As a result, it may be difficult for you to enforce within the United States any judgments obtained against our officers or directors, including judgments predicated upon the civil liability provisions of the securities laws of the United States or any U.S. state.

Because we do not intend to pay any dividends on our common stock, investors seeking dividend income should not purchase shares of our common stock.

We have not declared or paid any dividends on our common stock since our inception, and we do not anticipate paying any such dividends for the foreseeable future. Investors seeking dividend income should not invest in our common stock.

We have a potential conflict with a prior financing agreement that may expose us to potential litigation.

In our subscription agreement for our May 2007 equity financing, or the Prior Financing Agreement, there is a provision that requires us for a period of four years (subject to acceleration under certain circumstances) not to sell any of our common stock for less than $.0125 per share. The Prior Financing Agreement provides that any sale below that number must be preceded by a consent from each purchaser in the placement. Since that date, we have effected a one-for-200 reverse stock split.

In August 2008, we entered into securities purchase agreements pursuant to which we sold securities at a price higher than the pre-split price of $0.125 and below the post-split price of $2.50. We decided to proceed with this offering notwithstanding this provision for the following reasons:

- The agreement did not contain any provisions for the adjustment of the specified minimum price in the event of stock splits and the like. If such agreement were to have contained such a provision, the floor price would be $2.50, which is more than the offering price of this offering.

- The majority of purchasers in the private placement have sold the stock purchased in the placement, and thus the number of purchasers whose consent is purportedly required has been substantially reduced. The number of shares outstanding as to which this provision currently applies according the information supplied by our transfer agent is 2,021,545 shares.

- An agreement that prevents our Board of Directors from issuing shares that are necessary to finance our business may be unenforceable.

- Even if the agreement were considered enforceable and the share price number were to be adjusted for our reverse stock split, we believe that there would be no damage from this offering to the holders of our shares whose consent is purportedly required.

In the event that a court were to hold that the issuance of shares below $2.50 per share would violate the Prior Financing Agreement, it is unclear what remedy the court might impose. If the court were to impose a remedy that would be the equivalent of an anti-dilution provision (which is not contained in the Prior Financing Agreement), any issuance of shares would be dilutive to our shareholders, including those who purchase shares in the current offering. In addition, since August 2008, we, on several occasions, raised funds at a price per share which is higher than the pre-split price of $0.125 and below the post-split price of $2.50.

In connection with the August, 2008 financing, we approved the issuance of warrants to purchase up to 161,724 shares of our common stock to each of the investors who was a party to the Prior Financing Agreement that held shares purchased pursuant to such agreement, as of August 2008, conditioned on having the investors execute a general release pursuant to which we will be released from liability including, but not limited to, any claims, demands, or causes of action arising out of, relating to, or regarding sales of certain equity securities notwithstanding the above mentioned provision. As of September 1, 2010 we received a general release from some of the investors, and issued them warrants to purchase 105,583 shares of our common stock.

Item 1B. Unresolved Staff Comments.

Not Applicable.

Item 2. Properties.

Our principal executive and research and development offices are located at MATAM Advanced Technology Park, Building No. 20, Haifa, Israel 31905, where we occupy approximately 13,800 square feet. We lease our facilities. Our monthly rental as of September 2010 is 72,000 NIS (approximately $19,000). For the fiscal year ended June 30, 2010, we paid $226,778 for rent. We believe that the space available in our facilities is adequate to meet our current needs, although future growth may require that we occupy additional space.

Item 3. Legal Proceedings.

None.

Item 4. [Removed and Reserved]

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Our shares trade on the NASDAQ Capital Market under the symbol PSTI, and on Europe's Frankfurt Stock Exchange, under the symbol PJT.

The following table reflects the high and low sale prices on the NASDAQ Capital Market obtained from Yahoo! Finance and may not necessarily represent actual transactions.

The high and low bid and sale prices of our common stock for the periods indicated below are as follows:

Quarter Ended	High	Low
September 30, 2008	$ 0.89	$ 0.82
December 31, 2008	$ 0.44	$ 0.38
March 31, 2009	$ 1.39	$ 1.28
June 30, 2009	$ 1.41	$ 1.29
September 30, 2009	$ 1.42	$ 1.38
December 31, 2009	$ 1.21	$ 1.00
March 31, 2010	$ 1.15	$ 1.10
June 30, 2010	$ 1.16	$ 1.11

On September 1, 2010, the per share closing price of our common stock, as reported by Yahoo! Finance, was $1.10. As of September 1, 2010, there were 123 holders of record of our common stock. As of such date, 21,829,350 common shares were issued and outstanding.

American Stock Transfer and Trust Company, LLC is the registrar and transfer agent for our common shares. Their address is 6201 15th Avenue, 2nd Floor, Brooklyn, NY 11219, telephone: (718) 921-8261, (800) 937-5449.

Dividend Policy

We have not paid any cash dividends on our common stock and have no present intention of doing so. Our current policy is to retain earnings, if any, for use in our operations and in the development of our business. Our future dividend policy will be determined from time to time by our Board of Directors.

Recent Sales of Unregistered Securities

We have not issued any unregistered securities other than as previously reported.

Item 6. Selected financial data.

Not Applicable.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

We develop and intend to commercialize, cell therapy production technologies and products.

RESULTS OF OPERATIONS – YEAR ENDED JUNE 30, 2010 COMPARED TO YEAR ENDED JUNE 30, 2009.

We have not generated any revenues, and we have negative cash flow from operations of $23,138,000 and have accumulated a deficit of $40,105,000 since our inception in May 2001. This negative cash flow is mostly attributable to research and development and general and administrative expenses. We anticipate that our operating expenses will increase as we intend to conduct expanded development of our products through clinical trials as well as animal pre-clinical trials and experiments. We estimate our operational cash expenses in the next twelve months will be approximately $7,000,000 (before deducting any government grants), generally falling in two major categories: research and development costs and general and administrative expenses.

Research and Development net

Research and development net costs (costs less participation by the OCS), for the year ended June 30, 2010 increased by 37% to $4,301,000 from $3,141,000 for the year ended June 30, 2009. This is due to the increase in our R&D activity in order to support our phase I clinical trials in Germany and in the US, and our preparation for the phase II clinical trials. We recruited 14 new employees (an increase of 50% in our R&D personnel), and built a new research lab in our facilities. The participation of the OCS has increased from $1,651,000 for the year ended June 30, 2009 to $1,822,000 for the year ended June 30, 2010.

For the next twelve months, we estimate that our cash research and development gross costs (before deducting any government grants) will be approximately $5,000,000. We intend to spend our research and development funds on continuing research of our PLX cells, completing our phase I clinical trials for the PAD indication and entering the phase II clinical trials, upgrading the 3-D bioreactor operations, and developing capabilities for new clinical indications of PLX cells.

General and Administrative

General and administrative expenses for the year ended June 30, 2010 decreased by 8% to $3,138,000 from $3,417,000 for the year ended June 30, 2009. The decrease in general and administrative expenses is primarily attributable to the decrease in stock-based compensation to employees.

For the next twelve months, we estimate that our cash general and administrative expenses will be approximately $2,000,000. These expenses will include management services, public relations and investor relations and additional amounts on office and miscellaneous charges, which consist primarily of charges incurred for purchase of office supplies and other administrative expenses. These expenses will also include professional fees, which consist primarily of accounting and auditing fees for the year-end audit and legal fees for securities advice, directors' liability insurance and cost of fundraising.

Financial Income, net

Financial expenses decreased from $78,000 for the year ended June 30, 2009 to $14,000 for the year ended June 30, 2010. The decrease in the financial expenses is due to a loss from the sale of marketable securities that occurred during the previous fiscal year and due to exchange rate adjustments.

Net Loss

Net loss for the year ended June 30, 2010 was $7,453,000 as compared to net loss of $6,636,000 for the year ended June 30, 2009. Net loss per share for the year ended June 30, 2010 was $0.44, as compared to $0.63 for the year ended June 30, 2009. The net loss per share decreased as a result of the increase in our weighted average number of shares due to the issuance of additional shares pursuant to equity issuances since July 1, 2009 as discussed further below.

Liquidity and Capital Resources

As of June 30, 2010, total current assets were $3,605,000 and total current liabilities were $1,281,000. On June 30, 2010, we had a working capital surplus of $2,324,000 and an accumulated deficit of $40,105,000. We finance our operations and plan to continue doing so with issuances of securities and grants from the OCS.

Cash and cash equivalents as of June 30, 2010 amounted to $1,583,000. This is a decrease of $756,000 from the $2,339,000 reported as of June 30, 2009. In addition to the cash and cash equivalents, we have a short-term bank

deposit in the amount of $913,000 as of June 30, 2010. Cash balances decreased in the year ended June 30, 2010 for the reasons presented below:

Operating activities used cash of $5,408,000 in the year ended June 30, 2010. Cash used by operating activities in the year ended June 30, 2010 primarily consisted of payments of salaries to our employees, and payments of fees to our consultants, subcontractors and professional services providers including costs related to our clinical trials, less research and development grants by the OCS.

Investing activities used cash of $1,296,000 in the year ended June 30, 2010. The investing activities consisted of investment of $898,000 in a short-term bank deposit and the purchase of equipment for our R&D facilities in the amount of $389,000.

Financing activities generated cash in the amount of $5,948,000 during the year ended June 30, 2010, substantially all of which was attributable to the July and October 2009, and April 2010 securities offerings described below.

On July 7, 2009, we announced that the first patient has been enrolled in a Phase I clinical trial of our PLX-PAD product. Upon the occurrence of such event, certain investors had an option to purchase additional shares and warrants (the "Option"). Accordingly, such certain investors purchased, in July 2009, 1,058,708 shares of common stock at a purchase price of $0.75 per share, for an aggregate purchase price of $794,000, and warrants to purchase up to an additional 1,058,708 shares of common stock with an exercise price of $1.50 per share. The warrants are exercisable for a period of 4 years and six months commencing six months following the issuance.

On October 12, 2009, certain institutional investors purchased 2,702,822 shares of our common stock and warrants to purchase 1,081,129 shares of common stock. The price per share of common stock was $1.12, and the exercise price of the warrants was $1.60. The warrants are exercisable for a period of five years commencing six months following the issuance thereof. Roth Capital Partners, LLC acted as placement agent, on a reasonable efforts basis, for the offering. The offering was made pursuant to our shelf registration statement on Form S-3. The gross proceeds we received from this offering were approximately $3,027,000. Total cash costs related to this placement amounted to $242,000.

On April 27, 2010, we closed a private placement pursuant to which we sold to certain investors 2,393,329 shares of unregistered common stock and warrants to purchase 717,999 shares of common stock and 717,999 shares of common stock, at exercise prices per share of $1.25 (the "$1.25 Warrants") and $1.40 (the "$1.40 Warrants"), respectively. The aggregate gross proceeds from the sale of the common stock and the warrants was $2,681,000. The warrants are exercisable six months following the issuance thereof, for a period of two and a half years and five years thereafter for the $1.25 Warrants and the $1.40 Warrants, respectively.

During fiscal year 2010 we received approximately $1,492,000 from the OCS towards our R&D expenses.

While most of our capital resources are denominated by US dollars, about half of our expenses are denominated by NIS. Due to the increased volatility of the US Dollar, we use foreign currency hedging transactions. We continue to actively utilize currency hedging transactions to manage our exposure.

Outlook

We do not expect to generate any revenues from sales of products in the next twelve months. We may generate revenues from sale of licenses to use our technology or products, although we have not sold such licenses in the past. Our products will likely not be ready for sale for at least three years, if at all.

The OCS has supported our activity in the past four years. Our application for a fifth year's grant was submitted in March 2010. Recently, the OCS approved a grant in an amount of $2.5 million for participation in R&D expenses for the period March 2010 to February 2011. (In August 2010 we received $932,000 on account of the approved grant). In

addition the European authorities approved a research grant under the European Commission's Seventh Framework Program (FP7) in the amount of approximately $150,000 for a period of 5 years.

We believe that the funds we have, together with the approved R&D grants, will be sufficient for operating until at least the first quarter of calendar year of 2011.

Our independent registered public accounting firm's report relating to our financial statements for the fiscal year ended June 30, 2010 states that there is a substantial doubt that we will be able to continue as a going concern. Management believes that we will need to raise additional funds before we have any cash flow from operations. We are continually looking for sources of funding, including non-diluting sources such as the OCS and European FP7 grants. We have an effective shelf registration statement which we have used in recent public offerings we made and may continue to use in the future to raise additional funds, subject to certain limitations based on our size.

If we are unable to obtain the financing necessary to support our operations, we may need to take measures to reduce our operating costs, or, if such measures will not be sufficient, we may be unable to continue as a going concern. In that event, we may be forced to cease operations and our stockholders could lose their entire investment in the company.

Application of Critical Accounting Policies

Our financial statements and accompanying notes are prepared in accordance with U.S. GAAP. Preparing financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, and expenses. These estimates and assumptions are affected by management's application of accounting policies. We believe that understanding the basis and nature of the estimates and assumptions involved with the following aspects of our consolidated financial statements is critical to an understanding of our financials.

Stock-based compensation

We account for stock-based compensation in accordance with ASC 718, "Compensation-Stock Compensation" (originally issued as SFAS 123R). ASC 718 requires companies to estimate the fair value of equity-based payment awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as an expense over the requisite service periods in the Company's consolidated income statements.

We recognize compensation expenses for the value of its awards, which have graded vesting based on the accelerated method over the requisite service period of each of the awards.

We estimate the fair value of stock options granted using the Black-Scholes-Merton option-pricing model. The option-pricing model requires a number of assumptions, of which the most significant are, expected stock price volatility, and the expected option term. Expected volatility was calculated based upon actual historical stock price movements over the most recent periods ending on the grant date. The expected life of options granted is calculated using the Simplified Method, as defined in Staff Accounting Bulletin, or SAB No. 107, "Share-Based Payments", or SAB No. 107, as the average between the vesting period and the contractual life of the options. On December 21, 2007 the SEC staff issued SAB No. 110, or SAB 110, which, effective January 1, 2008, amends and replaces SAB No. 107".

We currently use the Simplified Method, as adequate historical experience is not available to provide a reasonable estimate. We adopted SAB 110 effective January 1, 2008 and will continue to apply the Simplified Method until enough historical experience is available to provide a reasonable estimate of the expected term for stock option grants.

We have historically not paid dividends and have no foreseeable plans to distribute dividends. The risk-free interest rate is based on the yield from U.S. Treasury zero-coupon bonds with an equivalent term. The expected pre-vesting

forfeiture rate affects the number of exercisable options. Based on our historical experience, the pre-vesting forfeiture rate per grant is 5% for the options and shares granted to employees and 0% for the options and shares granted to directors and officers of our Company.

In accordance with ASC 718, restricted shares or restricted shares units are measured at their fair value as if they were vested and issued on the grant date. All restricted shares and restricted shares units to employees and non-employees granted in 2010 and 2009 were granted for no consideration or for a voluntary reduction in cash compensation; therefore their fair value was equal to the share price at the date of grant.

The fair value of all restricted shares and restricted shares units was determined based on the close trading price of our shares known at the grant date.

We apply ASC 718 and ASC 505 (EITF 96-18), "Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services", with respect to options and warrants issued to non-employees. ASC 718 requires the use of option valuation models to measure the fair value of the options and warrants at the measurement date.

Stock-based compensation is considered critical accounting policy due to the significant expenses of options, restricted stock and restricted stock units which were granted to our employees, directors and consultants. Stock-based compensation expenses that were recorded in fiscal year 2010 amounted to $1,769,000.

Research and Development Expenses, net

We expect our research and development expense to remain our primary expense in the near future as we continue to develop our product candidates. Research and development expense consists of:

- internal costs associated with research and development activities;
- payments made to consultants and subcontractors such as research organizations;
- manufacturing development costs;
- personnel-related expenses, including salaries, benefits, travel, and related costs for the personnel involved in research and development;
- activities relating to the preclinical studies and clinical trials; and
- facilities and other allocated expenses, which include direct and allocated expenses for rent and maintenance of facilities, as well as laboratory and other supplies.

The costs and expenses of our research and development activity are partially funded by grants we have received from the OCS. The grant is deducted from research and development expenses at the time we are entitled to such grant, on the basis of the cost incurrd. There can be no assurance that we will continue to receive grants from the OCS in amounts sufficient for our operations, if at all.

Off Balance Sheet Arrangements

Our company has no off balance sheet arrangements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Not Applicable.

Item 8. Financial Statements and Supplementary Data.

Our financial statements are stated in thousands United States dollars (US$) and are prepared in accordance with U.S. GAAP.

The following audited consolidated financial statements are filed as part of this registration statement:

Report of Independent Registered Public Accounting Firm, dated September 20, 2010

Consolidated Balance Sheets

Consolidated Statements of Operations

Consolidated Statements of Changes in Stockholders' Equity (Deficiency)

Consolidated Statements of Cash Flows

Notes to the Consolidated Financial Statements

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

CONSOLIDATED FINANCIAL STATEMENTS

As of June 30, 2010

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)
CONSOLIDATED FINANCIAL STATEMENTS

As of June 30, 2010

U.S. DOLLARS IN THOUSANDS

INDEX

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To The Stockholders Of

PLURISTEM THERAPEUTICS INC.

(A Development Stage Company)

We have audited the accompanying consolidated balance sheets of Pluristem Therapeutics Inc. and its subsidiary (a development stage company) ("the Company") as of June 30, 2010 and the related consolidated statements of operations, changes in stockholders' equity and cash flows for each of the three years in the period ended June 30, 2010 and for the period from May 11, 2001 (inception date) through June 30, 2010. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above, present fairly, in all material respects, the consolidated financial position of the Company as of June 30, 2010, and the consolidated results of operations and cash flows for each of the three years in the period ended June 30, 2010 and for the period from May 11, 2001 (inception date) through June 30, 2010, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 1b to the consolidated financial statements, the Company has not yet generated revenues from its operations and is dependent on external sources for financing its operations. These factors, among others discussed in Note 1b, raise substantial doubt about the Company's ability to continue as a going concern. The consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded assets amounts or the amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

/s/ Kost Forer Gabbay & Kasierer
A member of Ernst & Young Global

Haifa, Israel
September 20, 2010

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

CONSOLIDATED BALANCE SHEETS
U.S. Dollars in thousands

	Note	June 30, 2010	2009
ASSETS			
CURRENT ASSETS:			
Cash and cash equivalents	3	$1,583	$2,339
Short term bank deposit		913	-
Prepaid expenses		41	100
Accounts receivable from the Office of the Chief Scientist		706	383
Other accounts receivable		362	113
Total current assets		3,605	2,935
LONG-TERM ASSETS:			
Long-term deposits and restricted deposits		168	171
Severance pay fund		294	154
Property and equipment, net	4	1,555	1,203
Total long-term assets		2,017	1,528
Total assets		$5,622	$4,463

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

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

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

	Note	June 30, 2010	2009
LIABILITIES AND STOCKHOLDERS' EQUITY			
CURRENT LIABILITIES			
Trade payables		$791	$487
Accrued expenses		118	81
Other accounts payable	5	372	272
Total current liabilities		1,281	840
LONG-TERM LIABILITIES			
Long-term obligation		-	23
Accrued severance pay		360	206
		360	229
COMMITMENTS AND CONTINGENCIES	6		
STOCKHOLDERS' EQUITY	7		
Share capital:			
Common stock $0.00001par value:			
Authorized: 100,000,000 shares as of June 30, 2010, 30,000,000 shares as of June 30, 2009.			
Issued: 21,458,707 shares as of June 30, 2010, 14,738,693 shares as of June 30, 2009.			
Outstanding: 20,888,781shares as of June 30, 2010, 13,676,886 shares as of June 30, 2009.		-(*)	-(*)
Additional paid-in capital		44,086	36,046
Accumulated deficit during the development stage		(40,105)	(32,652)
		3,981	3,394
		$5,622	$4,463

(*) Less than $1.

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

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

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

	Note	Year ended June 30, 2010	2009	2008	Period from May 11, 2001 (Inception) through June 30, 2010
Research and development expenses		$6,123	$4,792	$5,077	$23,280
Less participation by the Office of the Chief Scientist		(1,822)	(1,651)	(684)	(5,072)
Research and development expenses, net		4,301	3,141	4,393	18,208
General and administrative expenses		3,138	3,417	6,036	20,511
Know how write-off		-	-	-	2,474
Operating loss		(7,439)	(6,558)	(10,429)	(41,193)
Financial expenses (income), net	8	14	78	69	(1,088)
Net loss for the period		$(7,453)	$(6,636)	$(10,498)	$(40,105)
Loss per share:					
Basic and diluted net loss per share		$(0.44)	$(0.63)	$(1.63)	
Weighted average number of shares used in computing basic and diluted net loss per share		17,004,998	10,602,880	6,422,364	

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

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIENCY)
U.S. Dollars in thousands (except share and per share data)

	Common Stock		Additional Paid-in Capital	Receipts on Account of Common Stock	Deficit Accumulated During the Development Stage	Total Stockholders' Equity (Deficiency)
	Shares	Amount				
Issuance of common stock on July 9, 2001	175,500	$(*)	$3	$-	$ -	$ 3
Balance as of June 30, 2001	175,500	(*)	3	-	-	3
Net loss	-	-	-	-	(78)	(78)
Balance as of June 30, 2002	175,500	(*)	3	-	(78)	(75)
Issuance of common stock on October 14, 2002, net of issuance expenses of $17	70,665	(*)	83	-	-	83
Forgiveness of debt	-	-	12	-	-	12
Stock cancelled on March 19, 2003	(136,500)	(*)	(*)	-	-	-
Receipts on account of stock and warrants, net of finders and legal fees of $56	-	-	-	933	-	933
Net loss	-	-	-	-	(463)	(463)
Balance as of June 30, 2003	109,665	$(*)	$98	$933	$ (541)	$ 490

(*) Less than $1.

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

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIENCY)
U.S. Dollars in thousands (except share and per share data)

	Common Stock		Additional Paid-in Capital	Receipts on Account of Common Stock	Deficit Accumulated During the Development Stage	Total Stockholders' Equity (Deficiency)
	Shares	Amount				
Balance as of July 1, 2003	109,665	$(*)	$98	$933	$ (541)	$ 490
Issuance of common stock on July 16, 2003, net of issuance expenses of $70	3,628	(*)	1,236	(933)	-	303
Issuance of common stock on January 20, 2004	15,000	(*)	-	-	-	(*)
Issuance of warrants on January 20, 2004 for finder's fee	-	-	192	-	-	192
Common stock granted to consultants on February 11, 2004	5,000	(*)	800	-	-	800
Stock based compensation related to warrants granted to consultants on December 31, 2003	-	-	358	-	-	358
Exercise of warrants on April 19, 2004	1,500	(*)	225	-	-	225
Net loss for the year	-	-	-	-	(2,011)	(2,011)
Balance as of June 30, 2004	134,793	$(*)	$2,909	$-	$ (2,552)	$ 357

(*) Less than $1.

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

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIENCY)
U.S. Dollars in thousands (except share and per share data)

	Common Stock		Additional Paid-in Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Equity (Deficiency)
	Shares	Amount			
Balance as of July 1, 2004	134,793	$ (*)	$ 2,909	$ (2,552)	$ 357
Stock-based compensation related to warrants granted to consultants on September 30, 2004	-	-	162	-	162
Issuance of common stock and warrants on November 30, 2004 related to the October 2004 Agreement net of issuance costs of $29	16,250	(*)	296	-	296
Issuance of common stock and warrants on January 26, 2005 related to the October 2004 Agreement net of issuance costs of $5	21,500	(*)	425	-	425
Issuance of common stock and warrants on January 31, 2005 related to the January 31, 2005 Agreement	35,000	(*)	-	-	(*)
Issuance of common stock and options on February 15, 2005 to former director of the Company	250	(*)	14	-	14
Issuance of common stock and warrants on February 16, 2005 related to the January 31, 2005 Agreement	25,000	(*)	-	-	(*)

(*) Less than $1.

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

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIENCY)
U.S. Dollars in thousands (except share and per share data)

	Common Stock		Additional Paid-in Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Equity (Deficiency)
	Shares	Amount			
Issuance of warrants on February 16, 2005 for finder fee related to the January 31, 2005 Agreement	-	-	144	-	144
Issuance of common stock and warrants on March 3, 2005 related to the January 24, 2005 Agreement net of issuance costs of $24	60,000	(*)	1,176	-	1,176
Issuance of common stock on March 3, 2005 for finder fee related to the January 24, 2005 Agreement	9,225	(*)	(*)	-	-
Issuance of common stock and warrants on March 3, 2005 related to the October 2004 Agreement net of issuance costs of $6	3,750	(*)	69	-	69
Issuance of common stock and warrants to the Chief Executive Officer on March 23, 2005	12,000	(*)	696	-	696
Issuance of common stock on March 23, 2005 related to the October 2004 Agreement	1,000	(*)	20	-	20

(*) Less than $1.

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

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIENCY)
U.S. Dollars in thousands (except share and per share data)

	Common Stock		Additional Paid-in Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Equity (Deficiency)
	Shares	Amount			
Classification of a liability in respect of warrants to additional paid in capital, net of issuance costs of $ 178	-	-	542	-	542
Net loss for the year	-	-	-	(2,098)	(2,098)
Balance as of June 30, 2005	318,768	(*)	6,453	(4,650)	1,803
Exercise of warrants on November 28, 2005 to finders related to the January 24, 2005 agreement	400	(*)	-	-	-
Exercise of warrants on January 25 ,2006 to finders related to the January 25, 2005 Agreement	50	(*)	-	-	-
Reclassification of warrants from equity to liabilities due to application of ASC 815-40 (originally issued as EITF 00-19)	-	-	(8)	-	(8)
Net loss for the year	-	-	-	(2,439)	(2,439)
Balance as of June 30, 2006	319,218	$(*)	$6,445	$ (7,089)	$ (644)

(*) Less than $1.

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

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIENCY)
U.S. Dollars in thousands (except share and per share data)

	Common Stock		Additional Paid-in Capital	Receipts on Account of Common Stock	Accumulated Other Comprehensive Loss	Deficit Accumulated During the Development Stage	Total Stockholders' Equity
	Shares	Amount					
Balance as of July 1, 2006	319,218	$ (*)	$ 6,445	$ -	$ -	$ (7,089)	$ (644)
Conversion of convertible debenture, net of issuance costs of $440	1,019,815	(*)	1,787	-	-	-	1,787
Classification of a liability in respect of warrants	-	-	360	-	-	-	360
Classification of deferred issuance expenses	-	-	(379)	-	-	-	(379)
Classification of a liability in respect of options granted to non-employees consultants	-	-	116	-	-	-	116
Compensation related to options granted to employees and directors	-	-	2,386	-	-	-	2,386
Compensation related to options granted to non-employee consultants	-	-	938	-	-	-	938
Exercise of warrants related to the April 3, 2006 agreement net of issuance costs of $114	75,692	(*)	1,022	-	-	-	1,022

(*) Less than $1.

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

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIENCY)
U.S. Dollars in thousands (except share and per share data)

	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Receipts on Account of Common Stock	Accumulated Other Comprehensive Loss	Deficit Accumulated During the Development Stage	Total Stockholders' Equity	Total Comprehensive Loss
Cashless exercise of warrants related to the April 3, 2006 agreement	46,674	(*)	(*)	-	-	-	-	
Issuance of common stock on May and June 2007 related to the May 14, 2007 agreement, net of issuance costs of $64	3,126,177	(*)	7,751	-	-	-	7,751	
Receipts on account of shares	-	-	-	368	-	-	368	
Cashless exercise of warrants related to the May 14, 2007 issuance	366,534	(*)	(*)	-	-	-	-	
Issuance of warrants to investors related to the May 14, 2007 agreement	-	-	651	-	-	-	651	
Unrealized loss on available for sale securities	-	-	-	-	(30)	-	(30)	$ (30)
Net loss for the year	-	-	-	-	-	(8,429)	(8,429)	(8,429)
Balance as of June 30, 2007	4,954,110	$ (*)	$ 21,077	$ 368	$ (30)	$ (15,518)	$ 5,897	-
Total comprehensive loss								$ (8,459)

(*) Less than $1.

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

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PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIENCY)
U.S. Dollars in thousands (except share and per share data)

	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Receipts on Account of Common Stock	Accumulated Other Comprehensive Loss	Deficit Accumulated During the Development Stage	Total Stockholders' Equity	Total Comprehensive Loss
Balance as of July 1, 2007	4,954,110	$ (*)	$ 21,077	$ 368	$ (30)	$ (15,518)	$ 5,897	
Issuance of common stock related to investors relation agreements	69,500	(*)	275	-	-	-	275	
Issuance of common stock in July 2007 - June 2008 related to the May 14, 2007 Agreement	908,408	(*)	2,246	(368)	-	-	1,878	
Cashless exercise of warrants related to the May 14, 2007 Agreement	1,009,697	(*)	(*)	-	-	-	-	
Compensation related to options granted to employees and directors	-	-	4,204	-	-	-	4,204	
Compensation related to options granted to non–employees consultants	-	-	543	-	-	-	543	
Realized loss on available for sale securities	-	-	-	-	30	-	30	$ 30
Net loss for the year	-	-	-	-	-	(10,498)	(10,498)	(10,498)
Balance as of June 30, 2008	6,941,715	$ (*)	$ 28,345	$ -	$ -	$ (26,016)	$ 2,329	
Total comprehensive loss								$ (10,468)

(*) Less than $1.

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

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIENCY)
U.S. Dollars in thousands (except share and per share data)

	Common Stock		Additional Paid-in Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Equity
	Shares	Amount			
Balance as of July 1, 2008	6,941,715	$(*)	$28,345	$ (26,016)	$ 2,329
Issuance of common stock related to investor relations agreements	171,389	(*)	133	-	133
Issuance of common stock and warrants related to the August 6, 2008 agreement, net of issuance costs of $125	1,391,304	(*)	1,475	-	1,475
Issuance of common stock and warrants related to the September 2008 agreement, net of issuance costs of $62	900,000	(*)	973	-	973
Issuance of common stock and warrants in November 2008 -January 2009, net of issuance costs of $39	1,746,575	(*)	660	-	660
Issuance of common stock and warrants related to the January 20, 2009 agreement, net of issuance costs of $5	216,818	(*)	90	-	90
Issuance of common stock and warrants related to the January 29, 2009 agreement, net of issuance costs of $90	969,826	(*)	1,035	-	1,035
Issuance of common stock and warrants related to the May 5, 2009 agreement, net of issuance costs of $104	888,406	(*)	1,229	-	1,229
Compensation related to options granted to employees and directors	-	-	1,315	-	1,315
Compensation related to options and warrants granted to non–employee consultants	-	-	97	-	97
Compensation related to restricted stock granted to employees and directors	427,228	(*)	642	-	642
Compensation related to restricted stock granted to non–employee consultants	23,625	(*)	52	-	52
Net loss for the period	-	-	-	(6,636)	(6,636)
Balance as of June 30, 2009	13,676,886	$(*)	$36,046	$ (32,652)	$ 3,394

(*) Less than $1.

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

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIENCY)
U.S. Dollars in thousands (except share and per share data)

	Common Stock		Additional Paid-in	Deficit Accumulated During the	Total Stockholders'
	Shares	Amount	Capital	Development Stage	Equity
Balance as of July 1, 2009	13,676,886	$ (*)	$ 36,046	$ (32,652)	$ 3,394
Issuance of common stock and warrants related to November 2008 through January 2009 agreements (on July 2009)	1,058,708	(*)	794	-	794
Issuance of common stock and warrants related to October 2009 agreements, net of issuance costs of $242	2,702,822	(*)	2,785	-	2,785
Issuance of common stock and warrants related to April 2010 agreements, net of issuance costs of $54	2,393,329	(*)	2,627	-	2,627
Issuance of common stock related to investor relations agreements	45,033	(*)	63	-	63
Exercise of options by employee	3,747	(*)	2	-	2
Compensation related to options granted to employees and directors	-	-	211	-	211
Compensation related to options and warrants granted to non–employee consultants	-	-	161	-	161
Compensation related to restricted stock and restricted stock units granted to employees and directors	981,586	(*)	1,357	-	1,357
Compensation related to restricted stock and restricted stock units granted to non–employee consultants	26,670	(*)	40	-	40
Net loss for the period	-	-	-	(7,453)	(7,453)
Balance as of June 30, 2010	20,888,781	$ (*)	$ 44,086	$ (40,105)	$ 3,981

(*) Less than $1.

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

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

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

	Year ended June 30,			Period from May 11, 2001 (inception) Through June 30,
	2010	2009	2008	2010
CASH FLOWS FROM OPERATING ACTIVITIES:				
Net loss	$(7,453)	$(6,636)	$(10,498)	$(40,105)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation	207	173	129	752
Capital loss	-	-	-	4
Impairment of property and equipment	2	5	47	54
Know-how write-off	-	-	-	2,474
Amortization of deferred issuance costs	-	-	-	604
Stock-based compensation to employees and directors	1,568	1,957	4,204	10,115
Stock-based compensation to non-employees consultants	201	149	561	2,499
Stock compensation to investor relations consultants	63	133	275	1,263
Know-how licensors – imputed interest	-	-	-	55
Salary grant in shares and warrants	-	-	-	711
Decrease (increase) in other accounts receivable	(307)	(247)	336	(792)
Decrease (increase) in prepaid expenses	59	250	(308)	49
Increase (decrease) in trade payables	132	(54)	237	589
Increase (decrease) in other accounts payable and accrued expenses	120	(96)	74	(15)
Increase in interest receivable on short-term deposit	(15)	-	-	(15)
Increase in accrued interest due to related parties	-	-	-	3
Linkage differences and interest on long-term restricted lease deposit	1	-	-	(1)
Change in fair value of liability in respect of warrants	-	-	-	(2,696)
Fair value of warrants granted to investors	-	-	-	651
Amortization of discount and changes in accrued interest on convertible debentures	-	-	-	128
Amortization of discount and changes in accrued interest from marketable securities	-	(3)	(1)	(9)
Loss from sale of investments of available-for-sale marketable securities	-	75	31	106

Impairment and realized loss on available-for-sale marketable securities	-	-	372	372
Accrued severance pay, net	14	32	4	66
Net cash used in operating activities	$(5,408)	$(4,262)	$(4,537)	$(23,138)

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

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

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

	Year ended June 30,			Period from May 11, 2001 (inception) through June 30,
	2010	2009	2008	2010
CASH FLOWS FROM INVESTING ACTIVITIES:				
Acquisition of Pluristem Ltd. (1)	$-	$-	$-	$32
Purchase of property and equipment	(389)	(313)	(840)	(1,994)
Investment in short-term deposits	(2,500)	-	-	(2,500)
Repayment of short-term deposits	1,602	-	-	1,602
Proceeds from sale of property and equipment	-	-	3	32
Investment in long-term deposits	(12)	(8)	(85)	(229)
Repayment of long-term restricted deposit	3	38	6	67
Purchase of available for sale marketable securities	-	-	-	(3,784)
Proceeds from sale of available for sale marketable securities	-	1,113	2,201	3,314
Purchase of know-how	-	-	-	(2,062)
Net cash provided by (used in) investing activities	(1,296)	830	1,285	(5,522)
CASH FLOWS FROM FINANCING ACTIVITIES:				
Issuance of common stock and warrants, net of issuance costs	$5,954	$5,462	$2,246	$27,345
Exercise of warrants and options	2	-	-	1,024
Receipts on account of shares	-	-	(368)	-
Issuance of convertible debenture	-	-	-	2,584
Issuance expenses related to convertible debentures	-	-	-	(440)
Repayment of know-how licensors	-	-	-	(300)
Repayment of notes and loan payable to related parties	-	-	-	(70)
Proceeds from notes and loan payable to related parties	-	-	-	78
Receipt of long-term loan	-	-	49	49
Repayment of long-term loan	(8)	(14)	(5)	(27)
Net cash provided by financing activities	5,948	5,448	1,922	30,243
Increase (decrease) in cash and cash equivalents	(756)	2,016	(1,330)	1,583
Cash and cash equivalents at the beginning of the period	2,339	323	1,653	-
Cash and cash equivalents at the end of the period	$1,583	$2,339	$323	$1,583

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

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PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

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

	Year ended June 30,			Period from May 11, 2001 (inception) through June 30,
	2010	2009	2008	2010
(a) Supplemental disclosure of cash flow activities:				
Cash paid during the period for:				
Taxes paid due to non-deductible expenses	$7	$33	$5	$54
Interest paid	$2	$3	$3	$18
(b) Supplemental disclosure of non-cash activities:				
Classification of liabilities and deferred issuance expenses into equity	$-	$-	$-	$97
Conversion of convertible debenture	$-	$-	$-	$2,227
Purchase of property and equipment in credit	$192	$20	$101	$192
Issuance of shares in consideration of accounts receivable	$252	$-	$-	$252
(1) Acquisition of Pluristem Ltd.				
Fair value of assets acquired and liabilities assumed at the acquisition date:				
Working capital (excluding cash and cash equivalents)				$(427)
Long-term restricted lease deposit				19
Property and equipment				130
In-process research and development write-off				246
				$(32)

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

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 1:-GENERAL

a. Pluristem Therapeutics Inc., a Nevada corporation, was incorporated and commenced operations on May 11, 2001, under the name A. I. Software Inc. which was changed as of June 30, 2003 to Pluristem Life Systems Inc. On November 26, 2007, its name was changed to Pluristem Therapeutics Inc. Pluristem Therapeutics Inc. has a wholly owned subsidiary, Pluristem Ltd. (“the Subsidiary”), which is incorporated under the laws of Israel. Pluristem Therapeutics Inc. and its Subsidiary are referred to as "the Company".

b. The Company is devoting substantially all of its efforts towards conducting research and development of adherent stromal cells production technology and the commercialization of cell therapy products. Accordingly, the Company is considered to be in the development stage, as defined in Accounting Standards Codification TM (“ASC”) 915 (originally issued as Statement of Financial Accounting Standards (“FAS”) No. 7, “Accounting and Reporting by Development stage Enterprises”). In the course of such activities, the Company have sustained operating losses and expects such losses to continue in the foreseeable future. The Company has not generated any revenues or product sales and has not achieved profitable operations or positive cash flows from operations. The Company's accumulated losses during the development stage aggregated to $40,105 through June 30, 2010 and the Company incurred net loss of $7,453 and negative cash flow from operating activities in the amount of $5,408 for the year ended June 30, 2010. 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 and research and development grants and in the longer term, from revenues from product sales or licensing of its technology. There are no assurances, however, that the Company will be successful in obtaining an adequate level of financing needed for the long-term development and commercialization of its planned products.

These conditions raise substantial doubt about the Company’s ability to continue as a going concern. The consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

c. Since December 10, 2007, the Company’s shares of common stock have been traded on the NASDAQ Capital Market under the symbol PSTI. The shares were previously traded on the OTC Bulletin Board under the trading symbol “PLRS.OB”. On May 7, 2007, the Company’s shares also began trading on Europe’s Frankfurt Stock Exchange, under the symbol PJT.

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 2:-SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements have been prepared in accordance with United States generally accepted accounting principles ("U.S. GAAP") applied on consistent basis.

a. Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates, judgments, and assumptions that are reasonable based upon information available at the time they are made. These estimates, judgments and assumptions can affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

b. Functional currency of the Subsidiary

It is anticipated that the majority of the Subsidiary's revenues will be generated outside Israel and will be determined in U.S. Dollars ("dollars"). In addition, most of the financing of the Subsidiary's operations has been made in dollars. The Company's management believes that the dollar is the primary currency of the economic environment in which the Subsidiary operates. Thus, the functional currency of the Subsidiary is the dollar. Accordingly, monetary accounts maintained in currencies other than the dollar are remeasured into dollars in accordance with ASC 830, "Foreign Currency Matters" (originally issued as Statement of Financial Accounting Standards (SFAS) 52, “Foreign Currency Translation”). All transaction gains and losses from the remeasurement of monetary balance sheet items are reflected in the statement of operations as financial income or expenses, as appropriate.

c. Principles of consolidation

The consolidated financial statements include the accounts of Pluristem Therapeutics Inc. and its Subsidiary. Intercompany transactions and balances have been eliminated upon consolidation.

d. Cash and cash equivalents

Cash equivalents are short-term highly liquid investments that are readily convertible to cash with maturities of three months or less at the date acquired.

e. Short-term bank deposit

Bank deposits with original maturities of more than three months but less than one year are presented as part of short-term investments. Deposits are presented at their cost including accrued interest. Interest on deposits is recorded as financial income.

f. Long-term restricted deposit

Long-term restricted deposit with maturities of more than one year used to secure lease agreement and hedge transactions not designated as hedging accounting instruments are presented at cost.

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 2:-SIGNIFICANT ACCOUNTING POLICIES (CONT.)

g. Property and Equipment

Property and equipment are stated at cost, net of accumulated depreciation. Depreciation is calculated by the straight-line method over the estimated useful lives of the assets, at the following annual rates:

	%
Laboratory equipment	10-15
Computers and peripheral equipment	33
Office furniture and equipment	6-15
Vehicles	15
Leasehold improvements	over the shorter of the expected useful life or the reasonable assumed term of the lease.

h. Impairment of long-lived assets

The Company's long-lived assets and identifiable intangibles are reviewed for impairment in accordance with ASC 360, "Property, Plant and Equipment" (originally issued as SFAS 144, “Accounting for the Impairment or Disposal of Long-Lived Assets”) whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of the assets to the future undiscounted cash flows expected to be generated by the assets. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets.

i. Accounting for stock-based compensation:

The Company accounts for stock-based compensation in accordance with ASC 718, "Compensation-Stock Compensation" (originally issued as SFAS 123R). ASC 718 requires companies to estimate the fair value of equity-based payment awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as an expense over the requisite service periods in the Company's consolidated income statements.

The Company recognizes compensation expenses for the value of its awards, which have graded vesting based on the accelerated method over the requisite service period of each of the awards.

The Company estimates the fair value of stock options granted using the Black-Scholes-Merton option-pricing model. The option-pricing model requires a number of assumptions, of which the most significant are, expected stock price volatility, and the expected option term. Expected volatility was calculated based upon actual historical stock price movements over the most recent periods ending on the grant date. The expected life of options granted is calculated using the Simplified Method, as defined in Staff Accounting Bulletin No. 107, "Share-Based Payments", as the

average between the vesting period and the contractual life of the options. On December 21, 2007 the SEC staff issued Staff Accounting Bulletin No. 110 (“SAB 110”), which, effective January 1, 2008, amends and replaces SAB 107, “Share-Based Payments”.

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 2:-SIGNIFICANT ACCOUNTING POLICIES (CONT.)

i. Accounting for stock-based compensation (cont.):

The Company currently uses the Simplified Method as adequate historical experience is not available to provide a reasonable estimate. The Company adopted SAB 110 effective January 1, 2008 and will continue to apply the Simplified Method until enough historical experience is available to provide a reasonable estimate of the expected term for stock option grants.

The Company has historically not paid dividends and has no foreseeable plans to issue dividends. The risk-free interest rate is based on the yield from U.S. Treasury zero-coupon bonds with an equivalent term. The expected pre-vesting forfeiture rate affects the number of exercisable options. Based on Company's historical experience, the pre-vesting forfeiture rate per grant is 5% for the options and shares granted to employees and 0% for the options and shares granted to directors and officers of the Company.

The fair value of the Company's stock options granted to employees and directors for the years ended June 30, 2009 and 2008 was estimated using the following assumptions (during fiscal year 2010 there were no options grants to employees or directors):

	Year ended June 30,			
	2009		2008	
Risk free interest rate	1.8 - 3.3	%	3.8 - 4.4	%
Dividend yields	0	%	0	%
Volatility	129 -132	%	127 -130	%
Expected term (in years)	6		6	

The assumptions below are relevant to restricted shares and restricted shares units granted in 2010 and 2009:

In accordance with ASC 718, restricted shares or restricted shares units are measured at their fair value as if it was vested and issued on the grant date. All restricted shares and restricted shares units to employees and non-employees granted in 2010 and 2009 were granted for no consideration or for a voluntary reduction in cash compensation; therefore their fair value was equal to the share price at the date of grant.

The fair value of all restricted shares and restricted shares units was determined based on the close trading price of the Company's shares known at the grant date. The weighted average grant date fair value of share granted during year 2010 was $1.

The Company applies ASC 718 and ASC 505 (EITF 96-18), "Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services", with respect to options and warrants issued to non-employees. ASC 718 requires the use of option valuation models to measure the fair value of

the options and warrants at the measurement date.

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 2:-SIGNIFICANT ACCOUNTING POLICIES (CONT.)

j. Research and Development expenses and royalty-bearing grants

Research and development expenses, net of participations are charged to the Statement of Operations as incurred.

Royalty-bearing grants from the government of Israel for funding approved research and development projects are recognized at the time the Company is entitled to such grants, on the basis of the cost incurred and applied as a deduction from research and development costs.

k. Loss per share

Basic net loss per share is computed based on the weighted average number of shares of common stock outstanding during each year. Diluted net loss per share is computed based on the weighted average number of shares of Common stock outstanding during each year, plus dilutive potential shares of common stock and warrants considered outstanding during the year, in accordance with ASC 260, “Earnings Per Share” (originally issued as SFAS 128). All outstanding stock options have been excluded from the calculation of the diluted loss per common share because all such securities are anti-dilutive for each of the periods presented.

l. Income taxes

The Company accounts for income taxes in accordance with ASC 740, "Income Taxes" (originally issued as SFAS 109). This Topic prescribes the use of the liability method, whereby deferred tax assets and liability account balances are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company provides a valuation allowance, if necessary, to reduce deferred tax assets to their estimated realizable value.

ASC 740 establishes a single model to address accounting for uncertain tax positions. ASC 740 clarified the accounting for income taxes by prescribing the minimum recognition threshold a tax position is required to meet before being recognized in the financial statements. ASC 740 also provides guidance on recognition, measurement, classification, interest and penalties, accounting in interim periods, disclosure and transition. The adoption of the provisions of ASC 740 did not have a material impact on the Company's consolidated financial position and results of operation.

m. Concentration of credit risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents, short-term deposits, long-term deposits and restricted deposits.

The majority of the Company’s cash and cash equivalents and short-term and long-term deposits are invested in dollar instruments of major banks in Israel and in the US. Generally, these deposits may be redeemed upon demand and

therefore bear minimal risk.

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 2:-SIGNIFICANT ACCOUNTING POLICIES (CONT.)

n. Severance pay

The Subsidiary's liability for severance pay is calculated pursuant to Israeli severance pay law based on the most recent salary of the employees multiplied by the number of years of employment, as of the balance sheet date. Employees are entitled to one month's salary for each year of employment or a portion thereof. The Company's liability for all of its employees is fully provided by monthly deposits with insurance policies and by an accrual. The value of these policies is recorded as an asset in the Company's balance sheet.

The deposited funds include profits or losses accumulated up to the balance sheet date. The deposited funds may be withdrawn only upon the fulfillment of the obligation pursuant to Israeli severance pay law or labor agreements. The value of the deposited funds is based on the cash surrendered value of these policies, and includes immaterial profits or losses.

Severance expenses for the years ended June 30, 2010, 2009 and 2008 amounted to approximately $134, $120, and $88, respectively.

o. Fair value of financial instruments

The carrying amounts of our financial instruments, including cash and cash equivalents, short-term deposits, other receivables, trade payable and other accounts payable and accrued liabilities, approximate fair value because of their generally short term maturities.

Effective January 1, 2008, the Company adopted ASC 820, “Fair value and disclosure” (originally issued SFAS 157). ASC 820 clarifies that 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.

The hierarchy is broken down into three levels based on the inputs as follows:

• Level 1 - Valuations based on quoted prices in active markets for identical assets that the Company has the ability to access. Valuation adjustments and block discounts are not applied to Level 1 instruments. Since valuations are based on quoted prices that are readily and regularly available in an active market, valuation of these products does not entail a significant degree of judgment.

• Level 2 - Valuations based on one or more quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly.

• Level 3 - Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

The availability of observable inputs can vary from investment to investment and is affected by a wide variety of factors, including, for example, the type of investment, the liquidity of markets and other characteristics particular to the transaction. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment and the investments are categorized as Level 3.

Foreign currency derivative contracts are classified within Level 2 as the valuation inputs are based on quoted prices and market observable data of similar instruments.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 2:-SIGNIFICANT ACCOUNTING POLICIES (CONT.)

p. Derivative financial instruments

The Company's Derivatives are not designated as hedging accounting instruments under ASC 815, Derivatives and Hedging (originally issued as SFAS 133 and SFAS161). 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 remeasurement gain and loss of the related foreign currency denominated assets and liabilities.

The fair value of the forward and options contracts as of June 30, 2010 and 2009 were recorded as a liability of $6 and an asset of $67, respectively.

q. Impact of recently issued accounting standards

1. Adoption of New Accounting Standards during the period:

In June 2009, the FASB issued what has been codified in ASC 105 "Generally Accepted Accounting Principles" (formerly: SFAS No. 168, the FASB Accounting Standards Codifications and Hierarchy of GAAP—a Replacement of SFAS 162). The Financial Accounting Standards Board (FASB) Accounting Standards Codification™ ("Codification") became the single source of authoritative U.S. GAAP. The Codification did not create any new GAAP standards but incorporated existing accounting and reporting standards into a new topical structure with a new referencing system to identify authoritative accounting standards, replacing the prior references to Statement of Financial Accounting Standards (SFAS), Emerging Issues Task Force (EITF), FASB Staff Position (FSP), etc. Authoritative standards included in the Codification are designated by their Accounting Standards Codification (ASC) topical reference, and new standards will be designated as Accounting Standards Updates (ASU), with a year and assigned sequence number. Beginning with the interim report for the third quarter of calendar year 2009, references to prior standards have been updated to reflect the new referencing system.

The Company has adopted the guidance and therefore all references by the Company to authoritative accounting principles recognized by the FASB reflect the Codification.

In February 2010, the FASB issued ASU 2010-09, which amends the Subsequent Events Topic of the ASC to eliminate the requirement for public companies to disclose the date through which subsequent events have been evaluated. The Company will continue to evaluate subsequent events through the date of the issuance of the financial statements; however, consistent with the guidance, this date will no longer be disclosed. This change did not affect the Company's consolidated financial statements.

Effective July 1, 2009, the Company adopted the updated provisions issued by the FASB for earnings per share. The new guidance provides that unvested share-based payment awards that contain non-forfeitable rights to dividends or

dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of earnings per share pursuant to the two-class method. The two-class method determines earnings per share for each class of common stock and participating security according to their respective participation rights in undistributed earnings. The adoption of these requirements did not have a material impact on the Company’s consolidated financial statements.

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 2:-SIGNIFICANT ACCOUNTING POLICIES (CONT.)

q. Impact of recently issued accounting standards (cont.)

1. Adoption of New Accounting Standards during the period (cont.)

In January 2010, the FASB updated the “Fair Value Measurements Disclosures” codified in ASU 2010-06. More specifically, this update will require (a) an entity to disclose separately the amounts of significant transfers in and out of Levels 1 and 2 fair value measurements and to describe the reasons for the transfers; and (b) information about purchases, sales, issuances and settlements to be presented separately (i.e. present the activity on a gross basis rather than net) in the reconciliation for fair value measurements using significant unobservable inputs (Level 3 inputs). This update clarifies existing disclosure requirements for the level of disaggregation used for classes of assets and liabilities measured at fair value, and requires disclosures about the valuation techniques and inputs used to measure fair value for both recurring and nonrecurring fair value measurements using Level 2 and Level 3 inputs. As applicable to the Company, this became effective as of the first interim or annual reporting period beginning after December 15, 2009, except for the gross presentation of the Level 3 roll forward information, which is required for annual reporting periods beginning after December 15, 2010 and for interim reporting periods within those years. The adoption of the new guidance does not have a material impact on its consolidated financial statements.

2. Recently issued accounting Standards

On July 21, 2010, the FASB issued ASU 2010-20, Disclosures about the Credit Quality of Financing Receivables and the Allowance for Credit Losses. The new disclosure guidance will significantly expand the existing disclosure requirements surrounding finance receivables and the allowance for loan losses. The objectives of the enhanced disclosures are to provide information that will enable readers of financial statements to understand the nature of credit risk in financing receivables, how that risk is analyzed in determining the related allowance for loan losses, and changes to the allowance during the reporting period. The new disclosures are required starting in the first interim or annual reporting period on or after December 31, 2010. The Company does not anticipate the adoption of this ASU to have an impact on its consolidated financial position, results of operations or cash flows.

NOTE 3:- CASH AND CASH EQUIVALENTS

	June 30,	
	2010	2009
In U.S. dollars	$ 1,271	$ 2,209
In New Israeli Shekels (NIS)	304	130
Other currencies	8	-
	$ 1,583	$ 2,339

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 4:-PROPERTY AND EQUIPMENT, NET

	June 30,	
	2010	2009
Cost:		
Laboratory equipment	$ 1,452	$ 1,102
Computers and peripheral equipment	150	125
Office furniture and equipment	80	50
Leasehold improvements	430	279
Vehicle	63	63
Total Cost	2,175	1,619
Accumulated depreciation:		
Laboratory equipment	383	254
Computers and peripheral equipment	116	89
Office furniture and equipment	24	16
Leasehold improvements	71	40
Vehicle	26	17
Total accumulated depreciation	620	416
Property and equipment, net	$ 1,555	$ 1,203

Depreciation expenses amounted to $207, $173 and $129 for the years ended June 30, 2010, 2009 and 2008, respectively.

NOTE 5:-OTHER ACCOUNTS PAYABLE

	June 30,	
	2010	2009
Accrued payroll	$ 102	$ 63
Payroll institutions	91	50
Accrued vacation	150	151
Liability in respect of hedge transactions	5	-
Current maturities of long-term obligation	24	8
	$ 372	$ 272

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 6:-COMMITMENTS AND CONTINGENCIES

a. The Subsidiary leases facilities under operating lease agreements. The leasing period for the leased area is 62 months as of July 1, 2007. The monthly payment is 64 thousand NIS starting from September 1, 2007 and is linked to the Israeli Consumer Price Index ("CPI"). The Subsidiary may extend the leasing period by 60 months, if an advanced notice is given. As of June 30, 2010 the monthly payment on leasing is approximately $19.

In order to secure these agreements, the Subsidiary pledged a deposit with the bank in the amount of $96. In addition, the Subsidiary has issued a bank guarantee in favor of the lessor in the amount of $94.

Lease expenses amounted $227, $218 and $193 for the years ended June 30, 2010, 2009 and 2008, respectively.

As of June 30, 2010 future rental commitments under the existing lease agreement and supplement are as follows:

Year ended June 30, 2011	$222
Year ended June 30, 2012	222
Year ended June 30, 2013	37
Total	$481

b. The Subsidiary leases 15 cars under operating lease agreements, which expire in years 2010 through 2013. The monthly payment is approximately $11 and is linked to the CPI. In order to secure these agreements, the Subsidiary pledged a deposit in the amount of $35.

Lease expenses amounted to $116, $86 and $61 for the years ended June 30, 2010, 2009 and 2008, respectively.

As of June 30, 2010 future rental commitments under the existing lease agreements are as follows:

Year ended June 30, 2011	$107
Year ended June 30, 2012	64
Year ended June 30, 2013	26
Total	$197

c. A deposit in the amount of $50 was pledged by the Subsidiary to secure the hedging transactions and a credit line.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 6:-COMMITMENTS AND CONTINGENCIES (CONT.)

d. Under the Law for the Encouragement of Industrial Research and Development, 1984, commonly referred to as the Research Law, research and development programs that meet specified criteria and are approved by a governmental committee of the Office of the Chief Scientist ("OCS") are eligible for grants of up to 50% of the project's expenditures, as determined by the research committee, in exchange for the payment of royalties from the sale of products developed under the program. Regulations under the Research Law generally provide for the payment of royalties to the Chief Scientist of 3% to 5% on sales of products and services derived from a technology developed using these grants until 100% of the dollar-linked grant is repaid. The Company's obligation to pay these royalties is contingent on its actual sale of such products and services. In the absence of such sales, no payment is required. Effective for grants received from the Chief Scientist under programs approved after January 1, 1999, the outstanding balance of the grants will be subject to interest at a rate equal to the 12 month LIBOR applicable to dollar deposits that is published on the first business day of each calendar year. Following the full repayment of the grant, there is no further liability for royalties.

Through June 30, 2010 and 2009, total grants obtained aggregated $4,104 and $2,640, respectively.

e. See note 7 P relating the May 2007 Agreement.

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS

a. On December 22, 2009, the Company's authorized common stock was increased from 30,000,000 shares with a par value of $0.00001 per share to 100,000,000 shares with a par value of $0.00001 per share. All shares have equal voting rights and are entitled to one vote per share in all matters to be voted upon by stockholders. The shares have no pre-emptive, subscription, conversion or redemption rights and may be issued only as fully paid and non-assessable shares. Holders of the common stock are entitled to equal ratable rights to dividends and distributions with respect to the common stock, as may be declared by the Board of Directors out of funds legally available.

On July 1, 2008, the authorized share capital of the Company was increased by authorizing 10,000,000 shares of preferred stock, par value $0.00001 each, with series, rights, preferences, privileges and restrictions as may be designated from time to time by the Company's Board of Directors. No shares of preferred stock have been currently issued.

b. On July 9, 2001, the Company issued 175,500 shares of common stock in consideration for $2.50, which was received on July 27, 2001.

c. On October 14, 2002, the Company issued 70,665 shares of common stock at a price of approximately $1.40 per common share in consideration for $100 before issuance costs of $17. On March 19, 2003, two directors each returned 68,250 shares of common stock with a par value of $2 per share, for cancellation, for no consideration.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

d. In July 2003, the Company issued an aggregate of 3,628 units comprised of 3,628 shares of common stock and 7,256 warrants to a group of investors, for total consideration of $1,236 (net of issuance costs of $70), under a private placement. The consideration was paid partly in the year ended June 30, 2003 ($933) and the balance was paid in the year ended June 30, 2004.

   In this placement each unit was comprised of one share of common stock and two warrants, the first warrant was exercisable within a year from the date of issuance for one share of common stock at a price of $450 per share. The second warrant is exercisable within five years from the date of issuance for one share of common stock at a price of $540 per share. All the warrants expired unexercised.

e. On January 20, 2004, the Company consummated a private equity placement with a group of investors (the "Investors"). The Company issued 15,000 units in consideration for net proceeds of $1,273 (net of issuance costs of $227). Each unit is comprised of 15,000 shares of common stock and 15,000 warrants. Each warrant is exercisable into one share of common stock at a price of $150 per share, and may be exercised until January 31, 2007. On March 18, 2004, a registration statement on Form SB-2 was declared effective and the above-mentioned common stock was registered for re-sale. If the effectiveness of the Registration Statement is suspended subsequent to the effective date of registration (March 18, 2004), for more than certain permitted periods, as described in the private equity placement agreement, the Company shall pay penalties to the Investors in respect of the liquidated damages.

According to ASC 815-40 (originally issued as Emerging Issued Task Force ("EITF") 00-19, "Accounting for derivative financial instruments indexed to, and potentially settled in, a Company's own stock" ("EITF 00-19")), the Company classified the warrants as liabilities according to their fair value as remeasured at each reporting period until exercised or expired. Changes in the fair value of the warrants were reported in the statements of operations as financial income or expense.

The Company allocated the gross amount received of $1,500 to the par value of the shares issued ($0.03) and to the liability in respect of the warrants issued ($1,499.97). The amount allocated to the liability was less than the fair value of the warrants at grant date. On January 31, 2007 all the warrants expired unexercised.

In addition, the Company issued 1,500 warrants to finders in connection with this private placement, exercisable into 1,500 common shares at a price of $150 per common share until January 31, 2007. The fair value of the warrants issued in the amounts of $192 was recorded as deferred issuance costs and is amortized over a period of three years. On April 19, 2004, the finders exercised the warrants.

f. In October 2004, the Company consummated a private placement offering ("the October 2004 Agreement") pursuant to which it issued 42,500 units. Each unit is comprised of one share of common stock and one warrant. The warrant is exercisable for one common stock at an exercise price of $60 per share, subject to certain adjustments. The units were issued as follows:

In November 2004, the Company issued according to the October 2004 Agreement 16,250 units comprised of 16,250 shares of common stock and 16,250 warrants to a group of investors, for total consideration of $296 (net of cash issuance costs of $29), and additional 600 warrants to finders as finders' fees.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

f.(cont.)

In January 2005, the Company issued according to the October 2004 Agreement an additional 21,500 units for total consideration of $425 (net of cash issuance costs of $5), and additional 450 warrants were issued to finders as finders' fees.

In March 2005, the Company issued according to the October 2004 Agreement additional 3,750 units for total consideration of $69 (net of cash issuance costs of $6), and additional 175 warrants were issued to finders as finders' fees.

In March 2005, the Company issued according to the October 2004 Agreement 1,000 common shares and 1,000 share purchase warrants to one investor for total consideration of $20 which was paid to the Company in May 2005.

On November 30, 2006, all the warrants expired unexercised.

g. On January 24, 2005, the Company consummated a private placement offering (the "January 24, 2005 Agreement") which was closed on March 3, 2005 and issued 60,000 units in consideration for $1,176 (net of cash issuance costs of $24). Each unit is compromised of one share of common stock and one warrant. The warrant is exercisable for one share of common stock at a price of $60 per share. On November 30, 2006, all the warrants expired unexercised. Under this agreement the Company issued to finders 9,225 shares and 2,375 warrants with exercise price of $500 per share exercisable until November 2007. On November 30, 2007, 1,925 unexercised warrants expired.

h. On January 31, 2005, the Company consummated a private equity placement offering (the "January 31, 2005 Agreement") with a group of investors according to which it issued 60,000 units in consideration for net proceeds of $1,137 (net of issuance costs of $63). Each unit is comprised of one share of common stock and one warrant. Each warrant is exercisable into one share of common stock at a price of $60 per share. The January 31, 2005 Agreement includes a finder's fee of a cash amount equal to 5% of the amount invested ($60) and issuance of warrants for number of shares equal to 5% of the number of shares that were issued (3,000) with an exercise price of $20 per share, subject to certain adjustments, exercisable until November 30, 2006.

According to ASC 815-40, the Company classified the warrants as liabilities according to their fair value as remeasured at each reporting period until exercised or expired. Changes in the fair value of the warrants will be reported in the statements of operations as financial income or expense.

As of the date of the issuance, the Company allocated the gross amount received of $1,200 to the par value of the shares issued ($0.12) and to the liability in respect of the warrants issued ($1,200). Issuance expenses in the amount of $63 and finder's fee in the amount of $144 were recorded as deferred issuance costs. The amount allocated to the liability was less than the fair value of the warrants at grant date. On May 13, 2005, the Registration Statement became effective and the Company was no longer subject to possible penalties. As such, the liability and the deferred

issuance costs related to the agreement has been classified to the Stockholders Equity as Additional Paid in Capital. As of May 13, 2005, the fair value of the liability in respect of the warrants issued was $720 and the amount of the deferred issuance costs was $178.

On November 30, 2006, all the warrants expired unexercised.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

i. On March 23, 2005, the Company issued 12,000 shares of common stock and 12,000 options as a bonus to the then Chief Executive Officer, Dr. Shai Meretzki, in connection with the issuance of a Notice of Allowance by the United States Patent Office for patent application number 09/890,401. Salary expenses of $696 were recognized in respect of this bonus based on the quoted market price of the Company's stock and the fair value of the options granted using the Black–Scholes valuation model. On November 30, 2006, all the warrants expired unexercised.

j. On February 11, 2004, the Company issued an aggregate amount of 5,000 shares of common stock to a consultant and service provider as compensation for carrying out investor relations activities during the year 2004. Total compensation, measured as the grant date fair market value of the stock, amounted to $800 and was recorded as an operating expense in the statement of operations in the year ended June 30, 2004.

k. On November 28, 2005, 400 warrants, which were issued to finders as finder fees related to the January 24, 2005 Agreement, were exercised.

l. On January 25, 2006, 50 warrants, which were issued to finders as finder fees related to the January 24, 2005 Agreement, were exercised.

m. Convertible Debenture

On April 3, 2006, the Company issued Senior Secured Convertible Debentures (the "Debentures"), for gross proceeds of $3,000. In conjunction with this financing, the Company issued 236,976 warrants exercisable for three years at an exercise price of $15.00 per share. The Company paid a finder's fee of 10% in cash and issued 47,394 warrants exercisable for three years, half of which are exercisable at $15.00 and half of which are exercisable at $15.40 per share. The Company also issued 5,000 warrants in connection with the separate finder's fee agreement related to the issuance of the debenture exercisable for three years at an exercise price of $15.00 per share.

a. Interest accrued on the Debentures at the rate of 7% per annum, was payable semi-annually on June 30 and December 31 of each year and on conversion and at the maturity date. Interest was payable, at the option of the Company, either (1) in cash, or (2) in shares of common stock at the then applicable conversion price. If the Company failed to deliver stock certificates upon the conversion of the Debentures at the specified time and in the specified manner, the Company was required to make substantial payments to the holders of the Debentures.

b. The warrants, issued as of April 3, 2006, become first exercisable on the 65th day after issuance. Holders of the warrants were entitled to exercise their warrants on a cashless basis following the first anniversary of issuance if the Registration Statement is not in effect at the time of exercise.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

m. Convertible Debenture (Cont.):

In accordance with ASC 815-40, the Company allocated the consideration paid for the convertible debenture and the warrants as follows:

The warrants were recorded as a liability based on their fair value in the amount of $951 at grant date. The Company estimated the fair value of the warrants using a Black-Scholes option pricing model, with the following assumptions: volatility of 83%, risk free interest rate of 4.8%, dividend yield of 0%, and an expected life of 36 months. Changes in the fair value are recorded as interest income or expense, as applicable.

The fair value of the conversion feature of the debentures at grant date, in the amount of $1,951 was recorded as a liability.

The balance of the consideration, in the amount of $97, was allocated to the debentures. The discount in the amount of $2,903 was amortized according to the effective rate interest method over the debentures contractual period (24 months).

The fair value of the warrants issued as a finder’s fee and the finder’s fee in cash amounted to $535 and were recorded as deferred issuance expenses and are amortized over the Debentures’ contractual period. The Company estimated the fair value of the warrants using a Black - Scholes option pricing model, with the following assumptions: volatility of 83%, risk free interest rate of 4.8%, dividend yield of 0%, and an expected life of 36 months.

According to ASC 815-40, in order to classify warrants and options (other than employee stock options) as equity and not as liabilities, the Company should have sufficient authorized and unissued shares of common stock to provide for settlement of those instruments that may require share settlement. Under the terms of the Debentures, the Company may be required to issue an unlimited number of shares to satisfy the debenture’s contractual requirements. As such, on April 3, 2006, the Company’s warrants and options (other than employee stock options) were classified as liabilities and measured at fair value with changes recognized currently in earnings.

As of November 9, 2006, all of the Debentures, were converted into 969,815 shares. As a result, an amount of $1,787 was reclassified into common stock and additional paid-in capital as follows: from conversion of the feature embedded in convertible debenture ($1,951), convertible debenture ($202), accrued interest ($74) net of issuance expenses in the amount of $440. In addition, the warrants and options to consultants in the amount of $476 and deferred issuance expenses in the amount of $379 were reclassified as equity.

Pursuant to an investor relations agreement dated April 28, 2006, the Company paid in cash an amount of $440 on October 19, 2006 and issued 50,000 common shares on November 9, 2006 to certain service providers following reaching certain milestones regarding the conversion of the Debentures as agreed to by the parties.

During the year ended June 30, 2007, 186,529 of the warrants which were issued on April 3, 2006, were exercised. 75,692 warrants were exercised into shares in consideration for $1,022 (net of cash exercise costs of $114), and 110,836 warrants were exercised cashless into 46,674 shares. On April 30, 2009, the rest of the warrants expired unexercised.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

n. On May 14, 2007, the Company consummated a private equity placement with a group of investors for an equity investment ("May 2007 Agreement"). The Company sought a minimum of $7,000 and up to a maximum of $13,500 for shares of the Company's common stock at a per share price of $2.50, and warrants to purchase shares at an exercise price of $5.00 exercisable until five years after the closing date of the agreement.

In May 2007, under the May 2007 Agreement, the Company issued 3,126,177 shares of the Company's common stock and 3,126,177 warrants to purchase the Company's common stock in consideration for $7,751 (net of cash issuance costs of $64).

During July and August 2007, under the May 2007 Agreement, the Company issued additional 273,828 shares of the Company's common stock and 273,828 warrants to purchase the Company's common stock in consideration for $685. The consideration was paid partly prior to the issuance of the shares in the year ended June 30, 2007 ($368) and was recorded as receipts on account of shares and the balance was paid during July and August 2007.

As part of May 2007 Agreement, the Company signed an escrow agreement according to which the Company granted an option to an investor to invest, under the same conditions defined in the May 2007 Agreement, up to $5,000 which will be paid in monthly installments over 10 months starting six months subsequent to the closing date. According to the agreement, in the event that the investor fails to make any of the payments within five days of the payment due date, the option to invest the remaining amount will be cancelled. As a result of this agreement, the Company issued 634,580 shares of the Company's common stock and 634,580 warrants to purchase the Company's common stock in consideration for $1,561 (net of cash issuance costs of $25). As of March 31, 2008 the option was cancelled.

The total proceeds related to the May 2007 Agreement accumulated as of June 30, 2008 were $9,997 (net of cash issuance costs of $89), and 4,034,585 shares and 4,034,585 warrants were issued.

In connection with the May 2007 Agreement, the Company issued 275,320 warrants to finders as finders' fee. The warrants are exercisable for five years from the date of grant at an exercise price of $2.50 per share.

During 2008 and 2007, 1,361,818 and 500,000 warrants related to the May 2007 Agreement were exercised on a cashless basis for 1,009,697 shares of stock and 366,534 shares of stock, respectively.

o. The Company issued 28,398 warrants to the investors related to the May 2007 Agreement as compensation to investors who delivered the invested amount prior to the closing date of the placement. The warrants are exercisable for five years at an exercise price of $2.50 per share. The Company recorded the fair value of the warrants as financial expenses in the amount of $651 in the year ended June 30, 2007. The fair value of these warrants was determined using the Black-Scholes pricing model, assuming a risk free rate of 4.8%, a volatility factor of 128%, dividend yield of 0% and expected life of five years.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

p. In the May 2007 Agreement, there is a provision that requires the Company for a period of four years (subject to acceleration under certain circumstances) not to sell any of the Company's common stock for less than $0.0125 per share (pre-split price). The May 2007 Agreement provides that any sale below that price must be preceded by consent from each purchaser in the placement.

Since that date, the Company had effected a one-for-200 reverse stock split. The Company decided to proceed and enter into additional security purchase agreements notwithstanding this provision for the following reasons:

- The agreement does not contain any provisions for the adjustment of the specified minimum price in the event of stock splits and the like. If such agreement were to have contained such a provision, the floor price would be $2.50.

- The majority of purchasers in the private placement have sold the stock purchased in the placement, and thus the number of purchasers whose consent is purportedly required has been substantially reduced. The number of shares outstanding as to which this provision currently applies according the information supplied by transfer agent is 2 million shares.

- An agreement that prevents the Company's Board of Directors from issuing shares that are necessary to finance the Company's business may be unenforceable.

It is unclear what could be the consequences of a court decision that the issuance of shares below $2.50 per share violates the May 2007 Agreement.

In connection therewith, the Company approved the issuance of warrants to purchase up to 161,724 shares of its common stock to each of the investors who was a party to the May 2007 Agreement that held shares purchased pursuant to such agreement, as of August 6, 2008, conditioned on having the investors execute a general release pursuant to which the Company will be released from liability including, but not limited to, any claims, demands, or causes of action arising out of, relating to, or regarding sales of certain equity securities notwithstanding the above mentioned provision. As of June 30, 2010 the Company received a general release from part of the investors, and issued them warrants to purchase 105,583 shares of its common stock.

q. On August 6, 2008, the Company sold 1,391,304 shares of the Company's common stock and warrants to purchase 695,652 shares of common stock at an exercise price of $1.90 to two investors in consideration of $1,600 pursuant to terms of a securities purchase agreement. The placement agent received a placement fee equal to 6% of the gross purchase price of the Units (excluding any consideration that may be paid in the future upon exercise of the warrants) as well as warrants to purchase 83,478 shares of common stock at an exercise price of $1.44 per share. The warrants will be exercisable after six months from the closing date through and including August 5, 2013. Total cash issuance costs related to this placement amounted to $125.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

r. On September 22, 2008, the Company sold 900,000 shares of the Company's common stock and warrants to purchase 675,000 shares of common stock to an investor in consideration for $1,035 pursuant to terms of a securities purchase agreement. The price per share of common stock was $1.15, and the exercise price of the warrants is $1.90. The warrants will be exercisable for a period of five years. As part of this transaction, the Company paid a transaction fee to the finders equal to 6% of the actual purchase price and warrants exercisable for five years at an exercise price of $1.50 per share to purchase 54,000 of the Company's shares of common stock. Total cash issuance costs related to this placement amounted to $62.

s. From November 2008 through January 2009, the Company entered into a securities purchase agreement with investors, pursuant to which the Company sold 1,746,575 shares of its common stock at a price of $0.40 per share, for an aggregate purchase price of $699, and issued warrants to purchase up to an additional 1,746,575 shares of common stock with an exercise price of $1.00 per share. The warrants will be exercisable after six months from the closing date and will expire after five years. Pursuant to the agreement, the investors have the option, by notice to the Company no later than 10 business days following the release of an official announcement by the Company that it is initiating its first human clinical trials, to purchase an additional 931,507 shares of common stock at a purchase price of $0.75 per share, for an aggregate purchase price of $699, and receive therewith warrants to purchase up to an additional 931,507 shares of common stock with an exercise price of $1.50 per share.

The issuance costs include $39 in cash and warrants exercisable for five years at an exercise price of $1.00 per share to purchase 96,579 of the Company's shares of common stock.

t. On January 20, 2009, the Company sold 216,818 shares of its common stock and warrants to purchase 216,818 shares of common stock to investors in consideration for $95 pursuant to terms of a securities purchase agreement. The price per share of common stock is $0.44, and the exercise price of the warrants is $1.00 per share. The warrants will be exercisable after six months from the closing date and will expire after five years. Pursuant to the agreement, the investors have the option, by notice to the Company no later than 10 business days following the release of an official announcement by the Company that it is initiating its first human clinical trials, to purchase an additional 127,200 shares of common stock at a purchase price of $0.75 per share, for an aggregate purchase price of $95, and receive therewith warrants to purchase up to an additional 127,200 shares of common stock with an exercise price of $1.50 per share (the "January 20 Option"). The January 20 Option is exercisable within six months from the closing date. As part of this transaction, the Company paid a transaction fee to finders in an amount of $5 in cash and issued them warrants exercisable for two years at an exercise price of $1.00 per share to purchase 12,273 shares of the Company's common stock.

u. On January 29, 2009, the Company entered into a subscription agreement with certain investors, pursuant to which the Company sold to such investors 969,826 units, each unit consisting of one share of common stock and a warrant to purchase one of the Company's share of common stock ("Unit"). The purchase price per Unit was $1.16 and the aggregate purchase price for the said Units was approximately $1,125. The warrants are exercisable 181 days following the issuance thereof for a period of five years thereafter at an exercise price of $1.90 per share. The Company paid a transaction fee to finders in an amount of $90 in cash and issued them warrants exercisable after

six months for five years at an exercise price of $1.90 per share to purchase 80,983 shares of the Company's common stock.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

v. On May 5, 2009, the Company entered into securities purchase agreements with two investors pursuant to which the Company sold 888,406 shares of its common stock and warrants to purchase 488,623 shares of common stock in consideration for $1,333. The exercise price of the warrants is $1.96 per share and they will be exercisable for a period of five years commencing six months following the issuance thereof.

The Company paid a transaction fee to finders in an amount of $104 in cash and issued them warrants exercisable after six months for five years at an exercise price of $1.875 per share to purchase 53,304 shares of the Company's common stock.

w. On July 7, 2009, the Company announced that the first patient has been enrolled in a Phase I clinical trial of its PLX-PAD product. Upon the occurrence of such event, certain investors had an option from prior agreements from November 2008 through January 2009 to purchase additional shares and warrants. Accordingly, certain investors purchased in July 2009, 1,058,708 shares of common stock at a purchase price of $0.75 per share, for an aggregate purchase price of $794, and warrants to purchase up to an additional 1,058,708 shares of common stock with an exercise price of $1.50 per share. The warrants are exercisable for a period of 4 years and six months commencing six months following the issuance.

x. On October 12, 2009, certain institutional investors purchased 2,702,822 shares of the Company's common stock and warrants to purchase 1,081,129 shares of common stock. The price per share of common stock was $1.12, and the exercise price of the warrants was $1.60 per share. The warrants will be exercisable for a period of five years commencing six months following the issuance thereof. The gross proceeds received from this offering were approximately $3,027. Total cash costs related to this placement amounted to $242.

y. On April 27, 2010, the Company closed a private placement pursuant to which it sold to certain investors 2,393,329 shares of common stock and warrants to purchase 717,999 shares of common stock and 717,999 shares of common stock, at exercise prices per share of $1.25 (the "$1.25 Warrants") and $1.40 (the "$1.40 Warrants"), respectively. The price per share of common stock was $1.12. The aggregate gross proceeds from the sale of the common stock and the warrants were $2,681. The warrants are exercisable six months following the issuance thereof, for a period of two and a half years and five years thereafter for the $1.25 Warrants and the $1.40 Warrants, respectively.

The Company paid a transaction fee to finders in an amount of $54 in cash and issued them warrants exercisable at an exercise price of $1.12 per share to purchase 146,144 shares of the Company's common stock.

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

z. The following table summarizes the issuance of shares of common stock to the Company's investor relations consultants as compensation for their services since July 1, 2007:

Period of service	Number of shares issued	Fair market value of the shares issued at the issuance date	Expenses in the statements of operations for the Year ended June 30, 2008	Year ended June 30, 2009	Year ended June 30, 2010
July – December 2007	10,000	$149	$149	$-	$-
February – July 2008	7,500	18	18	-	-
March - September 2008	3,500	8	6	2	-
April – June 2008	50,000	102	102	-	-
July 2008 – June 2009	16,129	10	-	10	-
July –September 2008	40,000	46	-	46	-
October 2008	750	1	-	1	-
October 2008	20,000	12	-	12	-
December 2008 – November 2009	50,000	24	-	14	10
February – July 2009	9,510	12	-	12	-
February – April 2009	30,000	32	-	32	-
April 2009	3,500	4	-	4	-
August 2009 – June 2010	45,033	53	-	-	53
Total	285,922	$471	$275	$133	$63

The issuance of shares to the consultants was in some cases in addition to cash compensation the consultants were entitled to.

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

aa. Options, warrants, restricted stock and restricted stock units to employees, directors and consultants:

The Company has approved two incentive option plans from 2003 and from 2005 (the “2003 Plan" and the “2005 Plan”, and collectively, the “Plans”). Under these Plans, options, restricted stock and restricted stock units (the “Awards”) may be granted to the Company’s officers, directors, employees and consultants.

Each option granted under the 2005 Plan, as it was amended and restated on January 21, 2009 is exercisable through the expiration date of the 2005 Plan, which is December 31, 2018, unless stated otherwise. The Awards vest over two years from the date of grant, as follows: 25% vests six months after the date of grant, and the remaining Awards vest monthly, in equal instalments over 18 months unless other vesting schedules are specified. Any Awards that are cancelled or forfeited before expiration become available for future grants.

As of June 30, 2010, the number of shares of common stock authorized for issuance under the 2005 Plan amounted to 5,854,988. 781,663 shares are still available for future grant under the 2005 Plan as of June 30, 2010. Under the 2003 Plan 20,500 options are authorized for issuance, and 12,870 options are still available for future grant.

a. 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 (originally issued as SFAS 123(R) "Share-Based Payment"). A summary of the Company’s share option activity for options granted to employees and directors under the Plans is as follows:

	Year ended June 30, 2010			
	Number	Weighted Average Exercise Price	Weighted Average Remaining Contractual Terms (in years)	Aggregate Intrinsic Value Price
Options outstanding at beginning of period	2,366,106	$ 3.72		
Options exercised	(3,747)	0.62		
Options forfeited	(10,440)	3.15		
Options outstanding at end of the period	2,351,919	$ 3.73	6.87	$ 314
Options exercisable at the end of the period	2,218,948	$ 3.91	6.79	$ 248
Options vested and expected to vest	2,350,082	$ 3.73	6.87	$ 311

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

aa. Options, warrants, restricted stock and restricted stock units to employees, directors and consultants (cont.):

a. Options to employees and directors (cont.):

Intrinsic value of exercisable options (the difference between the Company's closing stock price on the last trading day in the period and the exercise price, multiplied by the number of in-the-money options) represents the amount that would have been received by the employees and directors option holders had all option holders exercised their options on June 30, 2010. This amount changes based on the fair market value of the Company's common stock.

Compensation expenses related to options granted to employees and directors were recorded as follows:

	Year ended June 30,		Period from inception through June 30,
	2010	2009	2010
Research and development expenses	$ 73	$ 371	$ 2,580
General and administrative expenses	138	944	5,536
	$ 211	$ 1,315	$ 8,116

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

aa. Options, warrants, restricted stock and restricted stock units to employees, directors and consultants (cont.):

b. Options and warrants to non-employees:

On July 17, 2009, the Company granted 90,000 options exercisable at a price of $0.00001 per share to Company consultants under the 2005 Plan. The fair value of these options at the grant date was $116.

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

	Year ended June 30, 2010			
	Number	Weighted Average Exercise Price	Weighted Average Remaining Contractual Terms (in years)	Aggregate Intrinsic Value Price
Options and warrants outstanding at beginning of period	336,000	$ 5.48		
Options and warrants granted	90,000	$ (*)		
Options and warrants forfeited	(36,250)	$ 7.93		
Options and warrants outstanding at end of the period	389,750	$ 3.97	6.00	$ 109
Options and warrants exercisable at the end of the period	338,925	$ 4.56	5.54	$ 52
Options and warrants vested and expected to vest	389,750	$ 3.97	6.00	$ 109

(*) Par value of $0.00001 per share.

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

	Year ended June 30,		Period from inception through June 30,
	2010	2009	2010
Research and development expenses	$ 90	$ 7	$ 1,606

General and administrative expenses	71	90	801
	$ 161	$ 97	$ 2,407

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

aa.Options, warrants, restricted stock and restricted stock units to employees, directors and consultants (cont.):

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

On December 22, 2009, the Company granted 1,060,000 restricted stock units to the Company's employees and directors under the 2005 Plan. The purchase price is $0.00001 per share. The fair value of these shares at the grant date was $1,049.

On May 10, 2010, the Company granted 270,508 shares of restricted stock to the Company's employees and directors under the 2005 Plan. The shares were issued in exchange for a voluntary reduction of one year in the cash compensation such directors and employees were entitled to. The fair value of these shares at the grant date was $292.

The following table summarizes the activities for unvested restricted stock units and restricted stock granted to employees and directors for the year ended June 30, 2010:

	Number
Unvested at the beginning of period	1,012,171
Granted	1,330,508
Forfeited	(4,428)
Vested	(981,586)
Unvested at the end of the period	1,356,665
Expected to vest after June 30, 2010	1,321,089

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

	Year ended June 30,		Period from inception through June 30,
	2010	2009	2010
Research and development expenses	$ 582	$ 250	$ 832
General and administrative expenses	775	392	1,167
	$ 1,357	$ 642	$ 1,999

On August 12, 2010, the Company's Compensation Committee approved a grant of total 270,000 restricted shares to two of our officers as a bonus. The shares will become fully vested upon announcing successful Phase I clinical results that support filing application to the EMA or FDA for Phase II clinical trials.

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

aa. Options, warrants, restricted stock and restricted stock units to employees, directors and consultants (cont.):

d. Restricted stock and restricted stock units to consultants:

On May 10, 2010, the Company granted 9,931 shares of restricted stock to the Company's consultant under the 2005 Plan. The shares were issued in exchange for a voluntary reduction of one year in the cash compensation such consultant was entitled to. The fair value of these shares at the grant date was $11.

The following table summarizes the activities for unvested restricted stock units and restricted stock granted to consultants for the year ended June 30, 2010:

	Number
Unvested at the beginning of period	49,636
Granted	89,931
Forfeited	(39,636)
Vested	(26,670)
Unvested at the end of the period	73,261
Expected to vest after June 30, 2010	73,261

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

	Year ended June 30,		Period from inception through June 30,
	2010	2009	2010
Research and development expenses	$ 40	$ 52	$ 92
	$ 40	$ 52	$ 92

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 7: - SHARE CAPITAL AND STOCK OPTIONS (CONT.)

bb. Summary of warrants and options:

A summary of all the warrants and options outstanding as of June 30, 2010 is presented in this table:

Warrants / Options	Exercise Price per Share	Options and Warrants for Common Stock	Options and Warrants Exercisable	Weighted Average Remaining Contractual Terms(in years)
Warrants:	$ 1.00	2,072,245	2,072,245	3.40
	$ 1.12	146,144	146,144	2.20
	$ 1.25 – 1.28	817,999	100,000	2.50
	$ 1.40 - $ 1.50	1,914,185	1,196,186	4.30
	$ 1.60	1,081,129	1,081,129	4.78
	$ 1.80 - $ 2.00	3,140,112	3,140,112	3.46
	$ 2.50	106,898	106,898	1.53
	$ 4.40	3,750	3,750	0.30
	$ 5.00	2,394,585	2,394,585	1.99
Total warrants		11,677,047	10,241,049	
Options:	$ 0.00	90,000	41,255	9.04
	$ 0.62	583,445	459,424	8.29
	$ 1.04	92,294	81,264	7.86
	$ 2.97	20,000	20,000	7.86
	$ 3.50	1,021,491	1,021,491	6.03
	$ 3.72 - $ 3.80	36,116	36,116	5.78
	$ 4.00	42,500	42,500	6.30
	$ 4.38 - $ 4.40	480,607	480,607	6.95
	$ 6.80	36,250	36,250	7.37
	$ 8.20	48,547	48,547	6.15
	$ 20.00	146,669	146,669	6.70
Total options		2,597,919	2,414,123	
Total warrants and options		14,274,966	12,655,172	

This summary does not include 569,926 shares of restricted stock and 860,000 RSUs that are not vested as of June 30, 2010.

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 8:-FINANCIAL EXPENSES (INCOME), NET

	Year ended June 30,			Period from May 11, 2001 (Inception) through June 30,
	2010	2009	2008	2010
Foreign currency translation differences	$(68)	$69	$(150)	$(108)
Interest on short-term bank credit and bank's expenses	13	5	13	64
Interest on long-term loan	2	3	3	8
Interest accrued on know-how licenses	-	-	-	69
Interest income on deposits	(18)	(14)	(25)	(168)
Deferred issuance expenses amortization	-	-	-	604
Discount amortization	-	-	-	105
Interest expenses of debenture	-	-	-	74
Change in fair value of warrants	-	-	-	(2,696)
Loss related to marketable securities	-	66	214	247
Interest expenses related to warrants issued to investors	-	-	-	651
Expenses (income) of derivatives	85	(51)	14	62
	$14	$78	$69	$(1,088)

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 9:-TAXES ON INCOME

A. Tax laws applicable to the companies:

1. Pluristem Therapeutics Inc. is taxed under U.S. tax laws.

2. The Subsidiary is taxed under the Israeli income Tax Ordinance and was taxed also under the Income Tax (Inflationary Adjustments) Law, 1985 ("the law").

Results of the Subsidiary for tax purposes were measured and reflected in real terms in accordance with the changes in the CPI. As explained in Note 2, the financial statements are presented in U.S. dollars. The difference between the rate of change in Israeli CPI and the rate of change in the NIS/U.S. dollar exchange rate causes a difference between taxable income or loss and the income or loss before taxes reflected in the financial statements. In accordance with ASC 740 (originally issued as SFAS 109), the Company has not provided deferred income taxes on this difference between the reporting currency and the tax bases of assets and liabilities.

On February 26, 2008, the Israeli Parliament (the Knesset) enacted the Income Tax Law (Inflationary Adjustments) (Amendment No. 20) (Restriction of Effective Period), 2008, which the Company refers to as the Inflationary Adjustments Amendment. In accordance with the Inflationary Adjustments Amendment, the effective period of the Inflationary Adjustments Law will cease at the end of the 2007 tax year and as of the 2008 tax year the provisions of the law shall no longer apply, other than the transitional provisions intended at preventing distortions in the tax calculations. In accordance with the Inflationary Adjustments Amendment, commencing the 2008 tax year, income for tax purposes will no longer be adjusted to a real (net of inflation) measurement basis. Furthermore, the depreciation of inflation immune assets and carried forward tax losses will no longer be linked to the Israeli consumer price index.

B. Tax assessments:

The Company has not received final tax assessments since its incorporation.

C. Tax rates applicable to the Company:

1. Pluristem Therapeutics Inc.:

The tax rates applicable to Pluristem Therapeutics Inc. whose place of incorporation is Nevada are corporate (progressive) tax at the rate of up to 35%, excluding State tax and Local tax if any, which rates depend on the state and city in which the Company will conduct its business.

2. The Subsidiary –

On July 2009, the Knesset passed The Law for Economic Efficiency (Amended Legislation for Implementing the Economic Plan for 2009 and 2010), 2009, which prescribes, among others, an additional gradual reduction in the rates of the Israeli corporate tax and real capital gains tax starting 2011 to the following tax rates: 2011 - 24%, 2012 –

23%, 2013 – 22%, 2014 – 21%, 2015 – 20%, 2016 – 18% and thereafter.

The above amendment did not have an effect on the Subsidiary's financial position and results of operations.

Israeli companies are generally subject to capital gains tax at the rate of the Israeli corporate tax (2010-25%).

PLURISTEM THERAPEUTICS INC. AND ITS SUBSIDIARY
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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
U.S. Dollars in thousands (except per share amounts)

NOTE 9:-TAXES ON INCOME (CONT.)

C. Tax rates applicable to the Company (Cont.)::

2. The Subsidiary (cont.) –

Tax Benefits Under the Law for the Encouragement of Capital Investments, 1959 (the " Encouragement Law")

On July 7, 2010, the Subsidiary has received a Pre-Ruling (the "Ruling") from the Israeli Tax Authority. According to the Ruling, the Subsidiary has been granted the status of "Benefited Enterprise" according to the Amendment to the Encouragement Law (the "Program"). The subsidiary chose the year 2007 as the election year of the Program, and chose to benefit from "alternative benefits track". Accordingly, the Subsidiary is entitled to tax benefits for a period of seven consecutive years, starting in the year in which the Subsidiary first generates taxable income. The Subsidiary which is located at National Priority Zone "B", entitled to an exemption from corporate tax in the first six years and to a reduced tax rate of 25% during the remaining benefited period (one year).

The beginning of the benefit period is determined as from the year in which the Benefited Company first generates taxable income, subject to limitation of 12 years from the election year.

Dividend distributed from retained tax-exempt profits will be subject to corporate and withholding taxes in Israel. If the retained tax-exempt profits are distributed, such retained profit distribution will be subject to corporate tax at a reduced tax rate of 25%, and to withholding tax rate of 15%.

The entitlement to the above benefits is conditional upon the Subsidiary's fulfilling the conditions stipulated by the Encouragement Law, the regulations published there under and by the Ruling.

D. Carryforward losses for tax purposes

As of June 30, 2010, Pluristem Therapeutics Inc. had U.S. federal net operating loss carryforward for income tax purposes in the amount of approximately $10,447. Net operating loss carryforward arising in taxable years beginning after August 6, 1997 can be carried forward and offset against taxable income for 20 years and expiring between 2022 and 2028.

Utilization of U.S. net operating losses may be subject to substantial annual limitations due to the "change in ownership" provisions of the Internal Revenue Code of 1986 and similar state provisions. The annual limitation may result in the expiration of net operating losses before utilization.

The Subsidiary in Israel has accumulated losses for tax purposes as of June 30, 2010, in the amount of approximately $12,803, which may be carried forward and offset against taxable business income and business capital gain in the future for an indefinite period.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
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NOTE 9:-TAXES ON INCOME (CONT.)

Deferred income taxes:

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets are as follows:

	June 30,	
	2010	2009
Deferred tax assets:		
U.S. net operating loss carryforward	$ 3,656	$ 3,292
Israeli net operating loss carryforward	3,201	2,071
Allowances and reserves	54	51
Total deferred tax assets before valuation allowance	6,911	5,414
Valuation allowance	(6,911)	(5,414)
Net deferred tax asset	$ -	$ -

As of June 30, 2010, the Company has provided valuation allowances in respect of deferred tax assets resulting from tax loss carryforward and other temporary differences, since they have a history of operating losses and current uncertainty concerning its ability to realize these deferred tax assets in the future. Management currently believes that it is more likely than not that the deferred tax regarding the loss carryforward and other temporary differences will not be realized in the foreseeable future.

Reconciliation of the theoretical tax expense (benefit) to the actual tax expense (benefit):

In 2008, 2009 and 2010, the main reconciling item of the statutory tax rate of the Company (27% to 35% in 2008, 26% to 35% in 2009 and 25% to 35% in 2010) to the effective tax rate (0%) is tax loss carryforwards and other deferred tax assets for which a full valuation allowance was provided.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We conducted an evaluation under the supervision of the Chief Executive Officer and Chief Financial Officer (its principal executive officer and principal financial officer, respectively), regarding the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act) as of June 30, 2010. Based on the aforementioned evaluation, management has concluded that our disclosure controls and procedures were effective as of June 30, 2010.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting has been designed 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 generally accepted in the United States of America.

Our internal control over financial reporting includes policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of our assets; provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States of America, and that receipts and expenditures are being made only in accordance with authorization of our management and directors; and provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of our internal control over financial reporting at June 30, 2010. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control—Integrated Framework. Based on that assessment under those criteria, management has determined that, at June 30, 2010, our internal control over financial reporting was effective.

This annual report does not include an attestation report of our registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the Company's registered public accounting firm pursuant to the exemption provided to issuers that are not "large accelerated filers" nor "accelerated filers" under the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the fourth quarter of fiscal year 2010 that have materially affected, or

are reasonably likely to materially affect, internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

As of June 30, 2010, our directors and executive officers, their ages, positions held, and duration of such, are as follows:

Name	Position Held With Company	Age	Date First Elected or Appointed
Zami Aberman	Chief Executive Officer, President, Director and Chairman of the Board of Directors	56	September 26, 2005 November 21, 2005 April 3, 2006
Yaky Yanay	Chief Financial Officer, Secretary	39	November 1, 2006
Nachum Rosman	Director	64	October 9, 2007
Doron Shorrer	Director	57	October 2, 2003
Hava Meretzki	Director	41	October 2, 2003
Isaac Braun	Director	57	July 6, 2005
Israel Ben-Yoram	Director	49	January 26, 2005
Mark Germain	Director	60	May 17, 2007
Shai Pines	Director	56	December 8, 2008

Business Experience

The following is a brief account of the education and business experience of each director and executive officer during at least the past five years, indicating each person's principal occupation during the period, and the name and principal business of the organization by which they were employed.

Zami Aberman

Mr. Aberman became our Chief Executive Officer and President in September 2005 and a director of the Company in November 2005. Mr. Aberman has served as our Chairman of the Board since April 2006, and between May 2007 and February 2009 he was Co-chairman with Mr. Mark Germain. He has 25 years of experience in marketing and management in the high technology industry. He has held positions of Chief Executive Officer and Chairman in Israel, the USA, Europe, Japan and Korea. He has operated within high-tech global companies in the fields of automatic optical inspection, network security, video over IP, software, chip design and robotics. Mr. Aberman serves as the Chairman of Rose Hitech Ltd., a private investment company. He has served in the past as the Chairman of VLScom Ltd., a private company specializing in video compression for HDTV and video over IP and as a Director of Ori Software Ltd., a company involved in data management. Prior to that, he served as the President and CEO of Elbit Vision System Ltd. (EVSNF.OB), a company engaged in automatic optical inspection. Prior to his service with the Company, Mr. Aberman has served as President and CEO of Netect Ltd., specializing in the field of internet security software and was the Co-Founder, President and CEO of Associative Computing Ltd., which developed an associative parallel processor for real-time video processing. He has also served as Chairman of Display Inspection Systems Inc.,

specializing in laser based inspection machines and as President and CEO of Robomatix Technologies Ltd.. In 1992, Mr. Aberman was awarded the Rothschild Prize for excellence in his field from the President of the State of Israel. Mr. Aberman holds a B.Sc. in Mechanical Engineering from Ben Gurion University in Israel.

Yaky Yanay

Mr. Yanay was appointed as our Chief Financial Officer and Secretary in November, 2006.

Prior to joining us, Mr. Yanay was the Chief Financial Officer of Elbit Vision System Ltd. (EVSNF.OB), a company engaged in automatic optical inspection. Mr. Yanay serves as a director of Elbit Vision System Ltd. Mr. Yanay holds a bachelor's degree with honors in business administration and accounting from the college of management studies in Rishon Le Zion, Israel and is a Certified Public Accountant in Israel.

Nachum Rosman

Mr. Rosman became a director of our company in October 2007. In 1999, Mr. Rosman founded Talecity Ltd., a movie production company, and has since been serving as its Chief Financial Officer. In addition he provides management and consulting services to startup companies in the financial, organizational and human resource aspects of their operations. Mr. Rosman also serves as a director at several privately held companies. Throughout his career, Mr. Rosman held Chief Executive and Chief Financial Officer positions in Israel, the United States and England. In these positions he was responsible, among other things, for finance management, fund raising, acquisitions and technology sales.

Mr. Rosman holds a B.Sc. in Management Engineering and an M.Sc. in Operations Research from the Technion, Haifa, Israel. Mr. Rosman also participated in a Ph.D. program in Investments and Financing at the Tel Aviv University, Israel.

Doron Shorrer

Mr. Shorrer became a director of the Company in October 2003. Mr. Shorrer also serves as a director with other companies: AIG Israel Insurance Company Ltd., Omer Insurance Mutual Fund, Massad Bank, Provident Fund of employees of the Israel Electric Company LTD, Gold Bond Logistic Group and B. Yair - a construction company, the last two companies that are trading at the Tel-Aviv Stock Exchange. Between 2002 and 2004 he was Chairman of the Boards of Phoenix Insurance Company, one of the largest insurance companies in Israel, and of Mivtachim Pension Benefit Group, the largest pension fund in Israel. Prior to serving in these positions, Mr. Shorrer held senior positions that included Arbitrator at the Claims Resolution Tribunal for Dormant Accounts in Switzerland; Economic and Financial Advisor, Commissioner of Insurance and Capital Markets for the State of Israel; Member of the board of directors of "Nechasim" of the State of Israel; Member Committee for the Examination of Structural Changes in the Capital Market (The Brodet Committee); General Director of the Ministry of Transport; Co-Founder and director of an accounting firm with offices in Jerusalem, Tel-Aviv and Haifa; Member of the Lecture Staff of the Amal School Chain; Chairman of a Public Committee for Telecommunications; and Economic Consultant to the Ministry of Energy. Among many areas of expertise, Mr. Shorrer formulates, implements and administers business planning in the private and institutional sector in addition to consulting on economic, accounting and taxation issues to a large audience ranging from private concerns to government ministries. Mr. Shorrer holds a B.A. in Economics and Accounting and an M.A. in Business Administration (specialization in finance and banking) from the Hebrew University of Jerusalem and is a Certified Public Accountant (ISR).

Hava Meretzki

Ms. Meretzki became a director of our company in October 2003. Ms. Meretzki is an attorney and since 2009 has been a partner in the law firm of Meretzki - Tavor in Haifa, Israel. Ms. Meretzki specializes in civil, trade and labor law and is presently Vice-Chairman for the National Council of the Israel Bar Association. In addition, Ms. Meretzki was nominated to be a member of the committee that nominates legal advisers for Israeli governmental companies.

Ms. Meretzki received a Bachelors Degree in Law from the Hebrew University in 1991 and was admitted to the Israel Bar Association in 1993.

Isaac Braun

Mr. Braun became a director of our company in July 2005. Mr. Braun is a business veteran with entrepreneurial, industrial and manufacturing experience. He is a co-founder and has been a board member of several hi-tech start-ups in the areas of e-commerce, security, messaging, search engines and biotechnology. Mr. Braun is involved with advising private companies on raising financing and business development.

Israel Ben-Yoram

Mr. Ben-Yoram became a director of our company in January 2005. He has been a director and partner in the accounting firm of Mor, Ben-Yoram and Partners in Israel since 1985. In addition, since 1992, Mr. Ben-Yoram has been a shareholder and has served as the head director of Mor, Ben-Yoram Ltd., a private company in Israel in parallel to the operation of Mor, Ben-Yoram and Partners. This company provides management services, economic consulting services and other professional services to businesses. Furthermore, Mr. Ben-Yoram is the CEO of Eshed Dash Ltd. and Zonbit Ltd. During 2003-2004 Mr. Ben-Yoram served as a director of Brainstorm Cell Therapeutics Inc (BCLI) and Smart Energy solutions, Inc. (SMGY) both were traded in the NASDAQ.

Mr. Ben-Yoram received a B.A. in accounting from the University of Tel Aviv, an M.A. in Economics from the Hebrew University of Jerusalem, an LLB and an MBA from Tel Aviv University and an LLM from Bar Ilan University. In addition, Mr. Ben-Yoram is qualified in arbitration and in mediation.

Mark Germain

Mr. Germain became a director of our company in May 2007. Between May 2007 and February 2009, Mr. Germain served as Co-Chairman of our Board. For more than five years, Mr. Germain has been a merchant banker serving primarily the biotech and life sciences industries. He has been involved as a founder, director, Chairman of the Board of, and/or investor in, over twenty companies in the biotech field, and assisted many of them in arranging corporate partnerships, acquiring technology, entering into mergers and acquisitions, and executing financings and going public transactions. He graduated from New York University School of Law in 1975, Order of the Coif, and was a partner in a New York law firm practicing corporate and securities law before leaving in 1986. Since then, and until he entered the biotech field in 1991, he served in senior executive capacities, including as president of a public company sold in 1991. In addition to being Co-Chairman of the Company, Mr. Germain is a director of the following publicly traded companies: Stem Cell Innovations, Inc., ChromaDex, Inc., Omnimmune Corp. and Collexis Holdings, Inc. He is also a co-founder and director of a number of private companies in the biotechnology field.

Shai Pines

Mr. Pines became a director of our company in December 2008. Mr. Pines is a lawyer admitted to practice law in the State of Israel since 1981. He is a partner with, and heads the Commercial and International Transactions Department of, the Israeli law firm of Hamburger Evron & Co. From 2000 to 2009, Mr. Pines served as a member of the Supervisory Board of Globe Trade Centre SA (GTC), a Polish company, which is traded on the Warsaw Stock Exchange, and from 2000 to 2005 as a member of the Supervisory Board of GTC International BV, a Dutch private company. Mr. Pines is also a member of the Board of Governors of the Law Faculty of the Tel-Aviv University since 2006. Mr. Pines holds an MBA degree from Kellogg School of Management, Northwestern University, & the Leon Recanati Graduate School of Business Administration, Tel-Aviv University and an LL.B. degree from Tel-Aviv University. During the last decade Mr. Pines was a member of the Executive Committee of Micha Tel-Aviv - the Multidisciplinary Center for Children with Hearing Loss. As of 2009 Mr. Pines is a member of the Audit Committee of Micha Tel-Aviv.

There are no family relationships between any of the directors or officers named above.

Audit Committee and Audit Committee Financial Expert

The members of our Audit Committee are Doron Shorrer, Nachum Rosman and Israel Ben-Yoram. Doron Shorrer is the Chairman of the Audit Committee, and our Board of Directors has determined that Israel Ben-Yoram is an "Audit Committee financial expert" and that all members of the Audit Committee are "independent" as defined by the rules of the SEC and the NASDAQ rules and regulations. The Audit Committee operates under a charter that was approved by our Board on August 29, 2007. The charter is posted on our website at www.pluristem.com. The information on our website is not incorporated by reference into this Annual Report. The primary responsibilities of our Audit Committee include:

§ Appointing, compensating and retaining our registered independent public accounting firm;

§ Overseeing the work performed by any outside accounting firm;

§ Assisting the Board in fulfilling its responsibilities by reviewing: (i) the financial reports provided by us to the SEC, our stockholders or to the general public, and (ii) our internal financial and accounting controls; and

§ Recommending, establishing and monitoring procedures designed to improve the quality and reliability of the disclosure of our financial condition and results of operations.

Our Audit Committee held seven meetings during fiscal 2010.

Other Committees of the Board

Compensation Committee

The members of our Compensation Committee are Doron Shorrer, Nachum Rosman and Israel Ben-Yoram. The Board has determined that all of the members of the Compensation Committee are "independent" as defined by the rules of the SEC and NASDAQ rules and regulations. The Compensation Committee operates under a written charter that was approved by our Board on August 29, 2007. The charter is posted on our website at www.pluristem.com. The primary responsibilities of our Compensation Committee include:

§ Reviewing, negotiating and approving, or recommending for approval by our Board of the salaries and incentive compensation of our executive officers;

§ Administering our equity based plans and making recommendations to our Board with respect to our incentive–compensation plans and equity–based plans; and

§ Periodically reviewing and making recommendations to our Board with respect to director compensation.

Our Compensation Committee held three meetings during fiscal 2010.

Nominating/Corporate Governance; Director Candidates.

The Company does not have a Nominating Committee or Corporate Governance Committee or any committees of a similar nature, nor any charter governing the nomination process. Our Board does not believe that such committees are needed for a company our size. However, our independent directors will consider stockholder suggestions for additions to our Board.

Code of Ethics

Effective August 29, 2007, our Board of Directors adopted a Code of Business Conduct and Ethics that applies to, among other persons, members of our Board of Directors, our officers including our Chief Executive Officer (being our principal executive officer) and our Chief Financial Officer (being our principal financial and accounting officer), contractors, consultants and advisors.

Our Code of Business Conduct and Ethics is filed with the SEC as an exhibit to our annual report on Form 10-KSB filed on September 23, 2005. We will provide a copy of the Code of Business Conduct and Ethics to any person without charge, upon request. Requests can be sent to: Pluristem Therapeutics Inc., MATAM Advanced Technology Park, Building No. 20, Haifa 31905, Israel.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act requires our executive officers and directors, and persons who own more than 10% of our common stock, to file reports regarding ownership of, and transactions in, our securities with the SEC and to provide us with copies of those filings. Based solely on our review of the copies of such forms received by us, or written representations from certain reporting persons, we believe that during fiscal year ended June 30, 2010, all filing requirements applicable to its officers, directors and ten percent beneficial owners were complied with.

Item 11. Executive Compensation.

The following table shows the particulars of compensation paid to the following persons, where applicable, for the years ended June 30, 2010 and 2009, chief executive officer and chief financial officer. We do not currently have any other executive officers, nor did we during the years ended June 30, 2010 and 2009.

SUMMARY COMPENSATION TABLE

Name and Principal Position	Year	Salary ($) (1)	Stock-based Awards ($)(2)	Non-Equity Incentive Plan Compensation ($)	All Other Compensation ($)	Total ($)
Zami Aberman Chief Executive Officer	2010	331,917 (3)	227,068	0	0	558,985
	2009	247,918 (3)	332,380	0	0	580,298
Yaky Yanay Chief Financial Officer	2010	159,820	107,362	0	19,385 (4)	286,567
	2009	140,974	159,057	0	19,220 (4)	319,251

(1) Salary payments which were in New Israeli Shekel, or NIS, were translated into US$ at the then current exchange rate for each payment.

(2) The fair value recognized for the stock-based awards was determined as of the grant date in accordance with FASB ASC Topic 718. Assumptions used in the calculations for these amounts are included in Note 2(i) to our consolidated financial statements for fiscal 2010 included elsewhere in this Annual Report on Form 10-K

(3) Includes $11,960 and $16,757 paid to Mr. Aberman as compensation for services as a director in 2010 and 2009, respectively.

(4) Represents cost to us in connection with the car made available to Mr. Yanay. The company also pays the tax associated with this benefit which is part of the amount in the Salary column in the table above.

We have the following written agreements and other arrangements concerning compensation with our executive officers:

(a) As of July 2009, and upon initiation of our clinical trial, Mr. Aberman's compensation was increased from $20,000 to $25,000 (before the voluntary reduction discussed below). In addition, Mr. Aberman is entitled once a year to receive an additional amount that equals the monthly consulting fee. The U.S. dollar rate will be not less then 4.35 NIS per $. All amounts above are paid plus value added tax. Mr. Aberman will also be entitled to one and a half percent (1.5%) from amounts received by us from non diluting funding and strategic deals.

During November 2008 until April 2009, Mr. Aberman participated in a voluntary reduction of 25% of the monthly consulting fee he was entitled to receive, and a full reduction of the annual additional amount that equals the monthly consulting fee, in exchange for issuance of 133,036 shares of our common stock.

During May 2009 until April 2010, Mr. Aberman participated in another voluntary reduction of 15%, in exchange for 35,500 shares of our common stock.

Starting May 2010, Mr. Aberman agreed to participate in an additional voluntary reduction of 15%, which will last 12 months. In exchange for the salary reduction and waiving his rights to receive 25 accrued vacation days, he received 78,267 shares of our common stock.

On August 12, 2010, our Compensation Committee approved a grant of 200,000 restricted shares to Mr. Aberman as a bonus. The shares will become fully vested upon announcing successful Phase I clinical results that support filing application to the EMA or FDA for Phase II clinical trials.

(b) Mr. Yanay's monthly salary was 35,500 NIS. In addition, Mr. Yanay is entitled once a year to receive an additional amount that equals his monthly salary. Mr. Yanay is provided with a cellular phone and a company car pursuant to the terms of his agreement. Furthermore, Mr. Yanay was entitled to a bonus of 1.4% from amounts received by us from non diluting funding and strategic deals.

On September 23, 2009, the Board approved that Mr. Yanay's monthly salary will be increased from 35,500 NIS to 42,500 NIS and he will be entitled to a 1.0% bonus of any non diluting amounts received by the company, including strategic deals.

During November 2008 until April 2009, Mr. Yanay participated in a voluntary reduction of 25% on the monthly salary he was due to receive, in exchange for the issuance of 45,000 shares of our common stock.

During May 2009 until April 2010, Mr. Yanay participated in an additional voluntary reduction of 15% on his monthly salary and a full reduction of his annual additional amount that equals his monthly salary, in exchange for 21,300 shares of common stock.

Starting May 2010, Mr. Yanay agreed to participate in another voluntary reduction of 15%, which will last 12 months. In exchange for the salary reduction and waiving his rights to receive 20 accrued vacation days, he received 35,243 shares of our common stock.

On August 12, 2010, our Compensation Committee approved a grant of 70,000 restricted shares to Mr. Yanay as a bonus. The shares will become fully vested upon announcing successful Phase I clinical results that support filing application to the EMA or FDA for Phase II clinical trials.

We have no plans or arrangements in respect of remuneration received or that may be received by our executive officers to compensate such officers in the event of termination of employment (as a result of resignation, retirement, change of control) or a change of responsibilities following a change of control, except for the following: (i) options issued to Mr. Aberman fully vest upon a change of control, and in the event of termination of the Consulting Agreement, he will be entitled to 50% acceleration of all of his unvested options and to receive an adjustment fee that equals the monthly consulting fees multiplied by 3 plus the number of years the Consulting Agreement is in force from the second year, but in any event no more than nine years in the aggregate; and (ii) Mr. Yanay may be entitled, under Israeli law and practice, to a severance payment that equals a month's salary for each twelve-month period of employment with the company. In addition, Mr. Yanay is entitled to acceleration of the vesting of his stock options and restricted stock in the following circumstances: (1) if we terminate his employment Mr. Yanay will be entitled to acceleration of 100% of any unvested options and restricted stock and (2) if Mr. Yanay resigns, he will be entitled to acceleration of 50% of any unvested options and restricted stock.

Pension, Retirement or Similar Benefit Plans

There are no arrangements or plans in which we provide pension, retirement or similar benefits for directors or executive officers. Our directors and executive officers may receive stock options or restricted shares at the discretion of our Board in the future.

Outstanding Equity Awards at the End of Fiscal 2010

The following table presents the outstanding equity awards held as of June 30, 2010 by our executive officers:

	Number of Securities Underlying Unexercised Option Awards					Stock Awards		
Name	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable		Option exercise price ($)	Option expiration date	Number of shares that have not vested (#)		Market value of shares that have not vested ($)
Zami Aberman	22,500	-		4.40	1/16/2016	-		-
	30,000	-		4.00	10/30/2016	-		-
	250,000	-		3.50	1/23/2017	-		-
	105,000	-		4.38	12/25/2017	-		-
	91,671	18,329	(1)	0.62	10/30/2018	-		-
	-	-		-	-	46,664	(3)	$53,664
	-	-		-	-	81,915	(5)	$94,202
						105,000	(7)	$120,750
Yaky Yanay*	62,500	-		4.38	12/25/2017	-		-
	12,500	-		4.00	9/17/2016	-		-
	50,000	-		3.50	1/23/2017	-		-
	45,836	9,164	(2)	0.62	10/30/2018	-		-
	-	-		-	-	23,330	(4)	$26,830
	-	-		-	-	35,243	(6)	$40,529
						52,500	(8)	$60,375

*The above securities do not include warrants received from participation in equity investments.

(1) Options to purchase 18,329 shares vest in one installment of 4,583 shares on July 30, 2010, and three installments of 4,582 shares on each of August 30, 2010, September 30, 2010 and October 30, 2010.

(2) Options to purchase 9,164 shares vest in four installments of 2,291 shares on each of July 30, 2010, August 30, 2010, September 30, 2010 and October 30, 2010.

(3) 46,664 restricted shares vest in eight installments of 5,833 shares on each of July 12, 2010, August 12, 2010, September 12, 2010, October 12, 2010, November 12, 2010, December 12, 2010, January 12, 2011 and February 12, 2011.

(4) 23,330 restricted shares vest in two installments of 2,917 shares on each of July 12, 2010 and August 12, 2010, and six installments of 2,916 shares on each of September 12, 2010, October 12, 2010, November 12, 2010, December 12, 2010, January 12, 2011 and February 12, 2011.

(5) 81,915 restricted shares vest in one installment of 40,959 shares on November 10, 2010, and six installments of 6,826 shares on each of December 10, 2010, January 10, 2011, February 10, 2011, March 10, 2011, April 10, 2011 and May 10, 2011.

(6) 35,243 restricted shares vest in one installment of 17,621 shares on November 10, 2010, and 6 installments of 2,937 shares on December 10, 2010, January 10, 2011, February 10, 2011, March 10, 2011, April 10, 2011 and May 10, 2011.

(7) 105,000 restricted shares vest in six installments of 5,834 shares on each of July 22, 2010, August 22, 2010, September 22, 2010, October 22, 2010, November 22, 2010, and December 22, 2010, and twelve installments of 5,833 shares on each of January 22, 2011, February 22, 2011, March 22, 2011, April 22, 2011, May 22, 2011, June 22, 2011, July 22, 2011, August 22, 2011, September 22, 2011, October 22, 2011, November 22, 2011 and December 22, 2011.

(8) 52,500 restricted shares vest in twelve installments of 2,917 shares on each of July 22, 2010, August 22, 2010, September 22, 2010, October 22, 2010, November 22, 2010, December 22, 2010, January 22, 2011, February 22, 2011, March 22, 2011, April 22, 2011, May 22, 2011 and June 22, 2011, and six installments of 2,916 shares on each of July 22, 2011, August 22, 2011, September 22, 2011, October 22, 2011, November 22, 2011 and December 22, 2011.

Aggregated Option/Exercises in Last Fiscal Year and 2010 Fiscal Year End Option/Values

During the fiscal year ended June 30, 2010, no stock options were exercised by our executive officers.

Long-Term Incentive Plans-Awards in Last Fiscal Year

We have no long-term incentive plans, other than the stock option plans described below under Item 12.

Compensation of Directors

The following table provides information regarding compensation earned by, awarded or paid to each person for serving as a director who is not an executive officer during Fiscal 2010:

Name	Fees Earned or Paid in Cash ($)	Stock-based Awards ($) (1)	Total ($)
Mark Germain	9,224	38,590	47,814
Nachum Rosman	15,440	38,590	54,030
Doron Shorrer	13,738	38,590	52,328
Hava Meretzki	9,289	38,590	47,879
Isaac Braun	11,270	38,590	49,860
Israel Ben-Yoram	14,702	38,590	53,292
Shai Pines	11,311	38,590	49,901

(1)

The fair value recognized for the stock-based awards was determined as of the grant date in accordance with FASB ASC Topic 718. Assumptions used in the calculations for these amounts are included in Note 2(i) to our consolidated financial statements for fiscal 2010 included elsewhere in this Annual Report on Form 10-K.

We reimburse our directors for expenses incurred in connection with attending board meetings and provide the following compensation for directors: annual compensation of $8,400; meeting participation fees of $750 per in-person meeting; and for meeting participation by telephone, $350 per meeting. On February 7, 2007, the Board raised the annual director fee to $10,000. On May 17, 2007, the Board decided that the dollar rate would be not less then 4.25 NIS per dollar. Starting November 2008, the directors participated in a voluntary reduction of 25% on their monthly fee in exchange for issuance of shares of our common stock.

On February 11, 2010 the compensation committee decided to change the meeting participation fees of Zami Aberman to a fixed compensation in the amount of total compensation received in the past 12 months ($4,100).

During fiscal 2010 we paid a total of $84,974 to directors as compensation. This amount does not include compensation to Mr. Aberman in his capacity as a director which is reflected in the Summary Compensation Table for Fiscal 2010 above. As of June 30, 2010, the directors (not including the chairman) held 1,374,333 options, restricted shares and restricted share units of which 1,055,913 were exercisable or vested, as the case may be.

The vesting of directors' stock options and restricted stock accelerates in the following circumstances: (1) termination of a director's position by the stockholders will result in the acceleration of 100% of any unvested options and (2) termination of a director's position by resignation will result in the acceleration of 50% of any unvested options.

Other than as described in the preceding two paragraphs, we have no present formal plan for compensating our directors for their service in their capacity as directors. Directors are entitled to reimbursement for reasonable travel and other out-of-pocket expenses incurred in connection with attendance at meetings of our Board. The Board may award special remuneration to any director undertaking any special services on our behalf other than services ordinarily required of a director. Other than indicated in this statement, no director received and/or accrued any compensation for his or her services as a director, including committee participation and/or special assignments during fiscal 2010.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholders Matters.

The following table sets forth certain information, to the best knowledge and belief of the Company, as of September 1, 2010 (unless provided herein otherwise), with respect to holdings of our common stock by (1) each person known by us to be the beneficial owner of more than 5% of the total number of shares of our common stock outstanding as of such date; (2) each of our directors; (3) each of our executive officers; and (4) all of our directors and our executive officers as a group.

Name and Address of Beneficial Owner	Beneficial Number of Shares(1)	Percentage
Directors and Named Executive Officers		
Zami Aberman Chief Executive Officer, Chairman of the Board, President and Director	1,069,740 (2)	4.8 %
Shai Pines Director	46,954	*
Hava Meretzki	147,646 (3)	*

Director				
Doron Shorrer Director	169,210	(4)	*	
Israel Ben-Yoram Director	149,230	(5)	*	
Isaac Braun Director	146,377	(6)	*	
Nachum Rosman Director	116,204	(7)	*	
Mark Germain Director	391,954	(8)	1.8	%
Yaky Yanay Chief Financial Officer and Secretary	445,404	(9)	2.0	%
Directors and Executive Officers as a group (9 persons)	2,682,719	(10)	11.50	%
5% Shareholders				
Bangor Holdings Ltd.	4,064,287	(11)	19.4	%
Merina Overseas Ltd.	1,533,334	(12)	6.8	%

_____

* = less than 1%

(1) Based on 21,829,350 shares of common stock issued and outstanding as of September 1, 2010. Except as otherwise indicated, we believe that the beneficial owners of the common stock listed above, based on information furnished by such owners, have sole investment and voting power with respect to such shares, subject to community property laws where applicable. Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Shares of common stock subject to options, warrants or right to purchase or through the conversion of a security currently exercisable or convertible, or exercisable or convertible within 60 days, are reflected in the table above and are deemed outstanding for purposes of computing the percentage ownership of the person holding such option or warrants, but are not deemed outstanding for purposes of computing the percentage ownership of any other person.

(2) Includes options to acquire 517,500 shares.

(3) Includes options to acquire 95,192 shares.

(4) Includes options to acquire 116,756 shares.

(5) Includes options to acquire 94,276 shares.

(6) Includes options to acquire 93,923 shares.

(7) Includes options to acquire 63,750 shares.

(8) Includes options to acquire 307,500 shares.

(9) Includes 21,600 warrants and options to acquire 180,000 shares.

(10) Includes 21,600 warrants and options to acquire 1,468,897 shares.

(11) The information is based solely on a Schedule13G filed with the SEC on July 14, 2010. Schedule 13G provides that Mr. Uri Heller has shared voting and dispositive power with respect to such shares.

(12) This information is based on a report from American Stock Transfer and Trust Company, LLC, the Company’s transfer agent dated September 1, 2010 and includes 766,667 warrants according to the company's books.

Equity Compensation Plan Information

On November 25, 2003, our Board of Directors adopted our 2003 Stock Option Plan. Under the 2003 Stock Option Plan, options may be granted to our officers, directors, employees and consultants or the officers, directors, employees and consultants of our subsidiary. Pursuant to the Plan, we reserved for issuance 20,500 shares of our common stock. As of June 30, 2010, there were 12,870 shares of our common stock still available for future grant under the plan.

On November 21, 2005, our Board of Directors adopted our 2005 Stock Option Plan. Under the 2005 Stock Option Plan, options may be granted to our officers, directors, employees and consultants or the officers, directors, employees and consultants of our subsidiary. Pursuant to the 2005 Stock Option Plan, we reserved for issuance 75,000 shares of our common stock. On January 24, 2007 our Board of Directors amended the 2005 Stock Option Plan to reserve for issuance 1,400,000 shares of our common stock. On August 29, 2007, we reserved an additional 500,000 of common stock for the 2005 option plan, and on August 28, 2008 an additional 90,000 shares of common stock.

At our annual meeting of our stockholders held on January 21, 2009, our stockholders approved the adoption of the Amended and Restated 2005 Stock Option Plan of the Company, or the 2005 Plan, amending the 2005 Stock Option Plan in order to: (i) increase the number of shares of common stock authorized for issuance thereunder from 1,990,000 to be equal to 16% of the number of shares of common stock issued and outstanding on a fully diluted basis immediately prior to the grant of securities; (ii) allow the issuance of shares of common stock and units for such shares of common stock; and (iii) set the termination date of the 2005 Plan to be December 31, 2018.

The following table summarizes certain information regarding our equity compensation plans as of June 30, 2010:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans
Equity compensation plan approved by security holders (1)	2,594,039	$ 3.88	781,663
Equity compensation plan not approved by security holders (2)	147,630	$ 1.71	12,870
Total	2,741,669	$ 3.76	794,533

(1) Includes awards granted under the 2005 Plan.

(2) Includes awards granted under the 2003 Stock Option Plan and awards not granted under either the 2003 Stock Option Plan or the 2005 Plan.

Item 13. Certain Relationships and Related Transactions and Director Independence.

No director, executive officer, principal shareholder holding at least 5% of our common shares, or any family member thereof, had any material interest, direct or indirect, in any transaction, or proposed transaction, during the fiscal years ended June 30, 2009 and June 30, 2010, in which the amount involved in the transaction exceeded or exceeds the lesser of $120,000 or one percent of the average of our total assets at the year end for the last two completed fiscal years.

Item 14. Principal Accounting Fees and Services

The fees for services provided by Kost Forer Gabbay & Kasierer, a member of Ernst & Young Global, to the Company in the last two fiscal years were as follows:

	Twelve months ended on June 30, 2010	Twelve months ended on June 30, 2009
Audit Fees	$70,000	$40,000
Audit-Related Fees	None	None
Tax Fees	$5,000	$13,250
All Other Fees	$8,879	$19,135
Total Fees	$83,879	$72,385

Audit Fees. These fees were comprised of professional services rendered in connection with the audit of our consolidated financial statements for our annual report on Form 10-K and the review of our quarterly consolidated financial statements for our quarterly reports on Form 10-Q that are customary under auditing standards generally accepted in the United States. In addition, these fees include amounts paid in connection with preparing an attestation report of our registered public accounting firm regarding internal control over financial reporting. Due to recent change in the law, we were not required to obtain such attestation report.

Tax Fees. These fees relate to our tax compliance and tax planning.

All Other Fees. These fees were comprised mainly of fees of relating to the preparation and filing of an application with the Israeli Office of Chief Scientist and ongoing advice in executing the approved applications.

SEC rules require that before Kost Forer Gabbay & Kasierer, a member of Ernst & Young Global, is engaged by us to render any auditing or permitted non-audit related service, the engagement be:

1. Pre-approved by our audit committee; or

2. entered into pursuant to pre-approval policies and procedures established by the audit committee, provided the policies and procedures are detailed as to the particular service, the audit committee is informed of each service, and such policies and procedures do not

include delegation of the audit committee's responsibilities to management.

The audit committee pre-approves all services provided by our independent auditors. All of the above services and fees were reviewed and approved by the audit committee before the services were rendered.

The audit committee has considered the nature and amount of fees billed by Kost Forer Gabbay & Kasierer, a member of Ernst & Young Global, and believes that the provision of services for activities unrelated to the audit is compatible with maintaining Kost Forer Gabbay & Kasierer's independence.

PART IV

Item 15. Exhibits.

3.1 Composite Copy of the Company's Articles of Incorporation as amended on December 22, 2009 (incorporated by reference to Exhibit 3.1 of our quarterly report on Form 10-Q filed February 11, 2009).

3.2 Amended By-laws (incorporated by reference to Exhibit 3.1 of our current report on Form 8-K filed January 22, 2007).

4.1 Form of Common Stock Purchase Warrant (incorporated by reference from Exhibit 4.1 of our current report on Form 8-K filed on October 6, 2009).

4.2 Form of Common Stock Purchase Warrant dated April 26, 2010. (incorporated by reference to Exhibit 4.1 of our current report on Form 8-K filed on April 28, 2010).

10.1 Consulting Agreement dated September 26, 2005 between Pluristem Ltd. and Rose High Tech Ltd. (incorporated by reference to Exhibit 10.25 of our quarterly report on Form 10-QSB filed February 9, 2006).+

10.2 Form of Securities Purchase Agreement dated October 6, 2009 (incorporated by reference to Exhibit 10.1 of our current report on Form 8-K filed on October 6, 2009).

10.3 Assignment Agreement dated May 15, 2007 between Pluristem Therapeutics Inc. and each of Technion Research and Development Foundation Ltd., Shai Meretzki, Dr. Shoshana Merchav (incorporated by reference to Exhibit 10.1 of our current report on Form 8-K filed on May 24, 2007).

10.4 Assignment Agreement dated May 15, 2007 between Pluristem Therapeutics Inc. and Yeda Research and Development Ltd. in (incorporated by reference to Exhibit 10.2 of our current report on Form 8-K filed on May 24, 2007).

10.5 Placement Agency Agreement, dated October 6, 2009, between Pluristem Therapeutics Inc. and Roth Capital Partners, LLC. (incorporated by reference to Exhibit 1.1 of our current report on Form 8-K filed on October 6, 2009).

10.6 Form of Regulation D Securities Purchase Agreement for Common Stock and Warrants. (incorporated by reference from Exhibit 10.1 of our current report on Form 8-K filed on April 28, 2010).

10.7 Form of Regulation S Securities Purchase Agreement for Common Stock and Warrants. (incorporated by reference to Exhibit 10.2 of our current report on Form 8-K filed on April 28, 2010).

10.8 Summary of Directors' Ongoing Compensation (incorporated by reference to Exhibit 10.1 of our quarterly report on Form 10-Q filed on November 12, 2009).

10.9 2003 Stock Option Plan (incorporated by reference to Exhibit 4.1 of our registration statement on Form S-8 filed on December 29, 2003) (Registration no. 333-111591).

10.10 The Amended and Restated 2005 Stock Option Plan (incorporated by reference to Exhibit 10.1 of our current report on Form 8-K filed on January 23, 2009).

10.11 Form of Stock Option Agreement under the Amended and Restated 2005 Stock Option Plan. (incorporated by reference to Exhibit 10.4 of our annual report on Form 10-K filed September 23, 2009). +

10.12 Form of Restricted Stock Agreement under the Amended and Restated 2005 Stock Option Plan. (incorporated by reference to Exhibit 10.16 of our annual report on Form 10-K filed September 23, 2009). +

10.13 Form of Restricted Stock Agreement (Israeli directors and officers) under the Amended and Restated 2005 Stock Option Plan. (incorporated by reference to Exhibit 10.17 of our annual report on Form 10-K filed September 23, 2009). +

14.1 Code of Business Conduct and Ethics and Compliance Program adopted by the Board of Directors (incorporated by reference to Exhibit 14.1 of our annual report on Form 10-KSB filed on September 23, 2005).

21.1 List of Subsidiaries of the Company (incorporated by reference to Exhibit 21.1 of our annual report on Form 10-K filed on September 29, 2008).

23.1* Consent of Kost Forer Gabbay & Kasierer, A member of Ernst & Young Global.

31.1* Certification pursuant to Rule 13a-14(a)/15d-14(a) of Zami Aberman.

31.2* Certification pursuant to Rule 13a-14(a)/15d-14(a) of Yaky Yanay.

32.1** Certification pursuant to 18 U.S.C. Section 1350 of Zami Aberman.

32.2** Certification pursuant to 18 U.S.C. Section 1350 of Yaky Yanay.

*Filed herewith.

** Furnished herewith

+ Management contract or compensation plan.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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 Therapeutics Inc.

By: /s/ Zami Aberman
(Zami Aberman, Chief Executive Officer,
Principal Executive Officer)
Date: September 20, 2010

By: /s/ Yaky Yanay
Yaky Yanay, Chief Financial Officer
(Principal Financial and Accounting Officer)
Dated: September 20, 2010

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/ Zami Aberman
Zami Aberman, Chief Executive Officer
(Principal Executive Officer)
Chairman of the Board and Director
Dated: September 20, 2010

By: /s/Yaky Yanay
Yaky Yanay, Chief Financial Officer
(Principal Financial and Accounting Officer)
Dated: September 20, 2010

By: /s/ Doron Shorrer
Doron Shorrer, Director
Dated: September 20, 2010

By: /s/ Hava Meretzki
Hava Meretzki, Director
Dated: September 20, 2010

By: /s/ Isaac Braun
Isaac Braun, Director
Dated: September 20, 2010

By: /s/ Israel Ben-Yoram
Israel Ben-Yoram, Director
Dated: September 20, 2010

By: /s/ Nachum Rosman
Nachum Rosman, Director

Dated: September 20, 2010

By: /s/ Mark Germain
Mark Germain, Director
Dated: September 20, 2010

By: /s/ Shai Pines
Shai Pines, Director
Dated: September 20, 2010