

PLURISTEM LIFE SYSTEMS INC

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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

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PROSPECTUS

Subject to Completion

May 13, 2005

PLURISTEM LIFE SYSTEMS, INC.

A NEVADA CORPORATION

SHARES OF COMMON STOCK OF PLURISTEM LIFE SYSTEMS, INC.

This prospectus relates to the resale by certain selling security holders of Pluristem Life Systems, Inc. of up to 70,565,000 shares of our common stock. The selling security holders may offer to sell the shares of common stock being offered in this prospectus at fixed prices, at prevailing market prices at the time of sale, at varying prices or at negotiated prices.

We will not receive any proceeds from the resale of shares of our common stock by the selling security holders. We will, however, receive proceeds upon exercise of the share purchase warrants and these proceeds will be used for general working capital purposes. We will pay for expenses of this offering.

Each of the selling security holders may be deemed to be an underwriter, as such term is defined in the Securities Act.

Our common stock is traded on the National Association of Securities Dealers OTC Bulletin Board under the symbol "PLRS". On April 18, 2005, the closing bid price of our common stock was \$0.22 on the OTC Bulletin Board.

Our business is subject to many risks and an investment in our common stock will also involve a high degree of risk. You should invest in our common stock only if you can afford to lose your entire investment. You should carefully consider the various Risk Factors described beginning on page 11 before investing in our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The information in this prospectus is not complete and may be changed. The selling security holders may not sell or offer these securities until this registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

The date of this prospectus is May 13, 2005.

The following table of contents has been designed to help you find important information contained in this prospectus. We encourage you to read the entire prospectus.

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As used in this prospectus, the terms "we", "us", "our", and "Pluristem" mean Pluristem Life Systems, Inc., unless otherwise indicated.

All dollar amounts refer to US dollars unless otherwise indicated.

PROSPECTUS SUMMARY

THIS IS ONLY A SUMMARY AND DOES NOT CONTAIN ALL OF THE INFORMATION THAT MAY BE IMPORTANT TO YOU. YOU SHOULD READ THE ENTIRE PROSPECTUS, ESPECIALLY RISK FACTORS AND OUR FINANCIAL STATEMENTS AND THE RELATED NOTES INCLUDED IN THIS PROSPECTUS, BEFORE DECIDING TO INVEST IN SHARES OF OUR COMMON STOCK.

Our Business

We are a company engaging in the research and commercialization of an exclusive technology to expand stem cells outside of the human body. Stem cells are unspecialized cells that renew themselves for long periods through cell division. Scientists have developed sufficient fundamental understanding to use stem cells for bone marrow transplants and other methods of cell therapy. However, generally there are not sufficient stem cells available to carry out transplants and other operations on adults. Our technology grows stem cells for potential use in combating fatal disease. We acquired our exclusive technology under a License Agreement with the Weizmann Institute of Science and the Technion-Israel Institute of Technology. We intend to improve this technology platform and develop it into a functional stem cell expansion system that we can sell or license to other research laboratories, umbilical cord blood banks, or clinics in the future. We have decided to name this system the PluriX bioreactor system.

Currently, we are in the research and developmental stage of our PluriX bioreactor system and have not begun the process of seeking regulatory approval for marketing our PluriX bioreactor system in any jurisdiction.

Our principal executive office is at MATAM Advanced Technology Park, Building No. 20, Haifa, Israel. Our telephone number is 011-972-4-850-1080.

We were incorporated in the State of Nevada under the name A.I. Software, Inc. on May 11, 2001. We were not successful in implementing our initial business plan of developing an artificial intelligence software called Randomix. In March and April of 2003, our board of directors decided to pursue initiatives in the biotechnology industry as an extension of our business. In May of 2003, we acquired our exclusive technology under a License Agreement with the Weizmann Institute of Science and the Technion-Israel Institute of Technology. On June 10, 2003, we acquired all of the issued and outstanding shares of a research and development company called Pluristem, Ltd. so we would have the capacity to conduct further research and development of our exclusive technology. On June 25, 2003, we changed our name to Pluristem Life Systems, Inc.

Number of Shares Being Offered

This prospectus relates to the resale by certain selling security holders of Pluristem Life Systems, Inc. of up to 70,565,000 shares of our common stock in connection with the resale of:

up to 8,500,000 shares of our common stock, representing those shares of our common stock that were sold to certain selling security holders pursuant to the Common Stock and Warrant Purchase Agreements entered into between the selling security holders and our company dated October 25, 2004 see Description of the Agreements with Certain Selling Security Holders in the October 25, 2004 Private Placement

up to 8,500,000 shares of our common stock, representing those shares of our common stock that are issuable to certain security holders upon exercise of warrants issued in connection with the Common Stock

and Warrant Purchase Agreements entered into between the selling security holders and our company dated October 25, 2004 - see Description of the Agreements with Certain Selling Security Holders in the October 25, 2004 Private Placement

up to 245,000 shares of our common stock, representing those shares of our common stock that are issuable to certain security holders upon exercise of warrants issued as consideration for services provided as placement agents - see Description of the Agreements with Certain Selling Security Holders in the October 25, 2004 Private Placement

up to 12,000,000 shares of our common stock, representing those shares of our common stock that were sold to certain selling security holders pursuant to the Common Stock and Warrant Purchase Agreements entered into between the selling security holders and our company dated January 24, 2005 - see Description of the Agreements with Certain Selling Security Holders in the January 24, 2005 Private Placement

up to 12,000,000 shares of our common stock, representing those shares of our common stock that are issuable to certain security holders upon exercise of warrants issued in connection with the Common Stock and Warrant Purchase Agreements entered into between the selling security holders and our company dated January 24, 2005 - see Description of the Agreements with Certain Selling Security Holders in the January 24, 2005 Private Placement

up to 1,845,000 shares of our common stock, representing those shares of our common stock that were issued to a security holder as consideration for services provided as a placement agent - see Description of the Agreements with Certain Selling Security Holders in the January 24, 2005 Private Placement

up to 475,000 shares of our common stock, representing those shares of our common stock that are issuable to certain security holders upon exercise of warrants issued as consideration for services provided as placement agents - see Description of the Agreements with Certain Selling Security Holders in the January 24, 2005 Private Placement

up to 12,000,000 shares of our common stock, representing those shares of our common stock that were sold to certain selling security holders pursuant to the Private Placement Subscription Agreements entered into between the selling security holders and our company dated January 31, 2005 - see Description of the Agreements with Certain Selling Security Holders in the January 31, 2005 Private Placement

up to 12,000,000 shares of our common stock, representing those shares of our common stock that are issuable to certain security holders upon exercise of warrants issued in connection with the Private Placement Subscription Agreements entered into between the selling security holders and our company dated January 31, 2005 - see Description of the Agreements with Certain Selling Security Holders in the January 31, 2005 Private Placement and

up to 600,000 shares of our common stock, representing those shares of our common stock that are issuable to a security holder upon exercise of warrants issued as consideration for services provided as a placement agent - see Description of the Agreements with Certain Selling Security Holders in the January 31, 2005 Private Placement

up to 2,400,000 shares of our common stock, representing those shares of our common stock that are issuable to our Chief Executive Officer, Dr. Shai Meretzki, upon exercise of warrants issued to him in connection with the issuance of a Notice of Allowance by the United States Patent Office for our patent application number 09/890,401.

The selling security holders may sell the shares of common stock in the public market or through privately negotiated transactions or otherwise. The selling shareholders may sell these shares of common stock through

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ordinary brokerage transactions, directly to market makers or through any other means described in the section entitled "Plan of Distribution".

Number of Shares Outstanding

There were 63,603,483 shares of our common stock issued and outstanding as at April 25, 2005.

Use of Proceeds

We will not receive any of the proceeds from the sale of the shares of our common stock being offered for sale by the selling security holders. We will, however, receive proceeds upon exercise of the share purchase warrants and these proceeds will be used for general working capital purposes. We will incur all costs associated with this registration statement and prospectus.

Summary of Financial Data

The summarized financial data presented below is derived from and should be read in conjunction with our audited consolidated financial statements for the years ended June 30, 2004 and June 30, 2003, and our unaudited consolidated financial statements for the six-month period ended December 31, 2004, (in each case including the notes to those financial statements) which are included elsewhere in this prospectus along with the section entitled "Plan of Operation" beginning on page 43 of this prospectus.

	For the 6-month period ended December 31, 2004 (unaudited)	For the 6-month period ended December 31, 2003 (unaudited)
Revenue	Nil	Nil
Net Loss for the Period	\$708,955	\$693,084
Net loss Per Share- basic and diluted	\$0.03	\$0.03
	As at December 31, 2004 (unaudited)	As at December 31, 2003 (unaudited)
Working Capital (Deficiency)	\$(117,737)	\$(190,701)
Total Assets	\$860,190	\$610,339
Total Share Capital	\$3,355,920	\$1,333,610
Accumulated deficit	\$(3,260,203)	\$(1,233,982)
Total Stockholders' Equity (Deficiency)	\$95,717	\$99,628
	For the year ended June 30, 2004	For the year ended June 30, 2003
Revenue	Nil	Nil
Net Loss for the Period	\$2,010,350	\$462,995
Net loss Per Share - basic and diluted	\$0.083	\$0.01
	As at June 30, 2004	As at June 30, 2003

Working Capital (Deficiency)	\$349,496	\$261,619
Total Assets	\$1,377,198	\$994,594
Total Share Capital	\$2,908,258	\$1,031,315
Accumulated deficit	\$(2,551,248)	\$(540,898)
Total Stockholders' Equity	\$357,010	\$490,417

RISK FACTORS

An investment in our common stock involves a number of very significant risks. You should carefully consider the following risks and uncertainties in addition to other information in this prospectus in evaluating our company and our business before purchasing shares of common stock. Our business, operating results and financial condition could be seriously harmed due to any of the following risks. The risks described below are not the only ones facing our company. Additional risks not presently known to us may also impair our business operations. You could lose all or part of your investment due to any of these risks.

RISKS RELATED TO OUR BUSINESS AND COMPANY

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 expansion technology, which raise doubt about our ability to continue as a going concern.

Our company has a limited operating history in our current business of developing and commercializing stem cell expansion technology and must be considered in the development stage. We were incorporated on May 11, 2001 with a business plan to develop an artificial intelligence software called Randomix. We were not successful in implementing our original business plan in regard to our Randomix software and as a result we decided in April of 2003 to pursue initiatives in the biotechnology industry as an extension to our business. In May of 2003 we entered into a license agreement with the Weizmann Institute of Science and the Technion-Israel Institute of Technology to acquire an exclusive license for a stem cell expansion technology. In June of 2003, we acquired our wholly-owned subsidiary, Pluristem, Ltd., based in Israel to conduct further research and development of the exclusive stem cell expansion technology licensed to us.

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 and commercialise our stem cell expansion technology. Our primary source of funds has been the sale of our common stock. We cannot assure 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, and we had a going concern note as described in an explanatory paragraph to our consolidated financial statements for the year ended June 30, 2004.

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

We are engaged in the business of developing and commercializing a technology and proposed device called the PluriX Bioreactor system. The proposed function of our PluriX Bioreactor system is to allow researchers and physicians to expand hematopoietic stem cells outside of the human body without differentiation so they may use in bone marrow transplants and other methods of cell therapy. Our PluriX Bioreactor system is in the development stage and we have not begun the regulatory approval process for our PluriX Bioreactor system. 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 business will be dependent upon successful commercialization of our PluriX Bioreactor system, which will require significant additional research and development as well as substantial clinical trials.

If we encounter problems or delays in the research and development of our PluriX Bioreactor system, we may not be able to raise sufficient capital to finance our operation during the period required to resolve the problems or delays.

Our PluriX Bioreactor system is 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 PluriX Bioreactor system 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.

We need to raise additional financing to support the research and development of our PluriX Bioreactor system 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.

We raised proceeds of approximately \$3,250,000 in three private placement offerings of our securities in October of 2004 and January of 2005 to support the development and commercialization of our PluriX Bioreactor system. These funds are expected to fund operations until early summer of 2006. Our ability to continue to develop and commercialize the PluriX Bioreactor system 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 and commercialize our technology. 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, no cash flow from operations and we are dependent for funds on our ability to sell our common stock, primarily on a private placement basis. There can be no assurance that we will be able to obtain financing on that basis in light of factors such as 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 shareholders. 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 PluriX Bioreactor system, which might result in the loss of some or all of your investment in our common stock.

If we fail to obtain and maintain required regulatory approvals for our PluriX Bioreactor system, our ability to commercialize our PluriX Bioreactor system will be limited severely.

Once fully developed, we intend to market our PluriX Bioreactor system primarily in the United States, Europe and Japan. We must obtain the approval of the Food and Drug Administration before commercialization of our technology 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 PluriX Bioreactor system, or of the cells produced in the PluriX Bioreactor system, including long-term sustained cell engraftment, or if one or more patients die or suffer severe complications in future clinical trials, the Food and Drug Administration or other regulatory authorities could delay or withhold regulatory approval of our technology.

Furthermore, even if we obtain regulatory approval for our PluriX Bioreactor system, that approval may be subject to limitations on the indicated uses for which it may be marketed. Even after granting regulatory approval, the Food and Drug Administration, 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.

Even if we obtain regulatory approvals to commercialize our technology, we may encounter a lack of commercial acceptance of our PluriX Bioreactor system, which would impair the profitability of our business.

Our research and development efforts are primarily directed toward obtaining regulatory approval to market the PluriX Bioreactor system as an alternative to, or as an improvement for, the traditional bone marrow harvest and peripheral blood progenitor cell stem cell collection methods. These stem cell collection methods have been widely practiced for a number of years, and our technology may not be accepted by the marketplace as readily as these or other competing processes and methodologies. Additionally, our PluriX Bioreactor system 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 PluriX Bioreactor system 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 may become obsolete and our business may suffer.

The market for our technology is very competitive, is subject to rapid technological changes and varies for different individual products. We believe that there are potentially many competitive approaches being pursued in competition to our technology, including some by private companies for which information is difficult to obtain.

Many of our competitors have significantly greater resources, more product candidates and have developed product candidates and processes that directly compete with our technology. Our competitors may have developed, or could in the future develop, new technologies that compete with our technology or even render our technology obsolete. Our technology is designed to expand hematopoietic stem cells outside of the human body without differentiation so they may be used in bone marrow transplants and other methods of cell therapy. Even if we are able to demonstrate improved or equivalent results, researchers and practitioners may not use our technology and we will suffer a competitive disadvantage. Finally, to the extent that others develop new technologies that address the targeted application for our PluriX Bioreactor system, our business will suffer.

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, including our Chief Executive Officer, Dr. Shai Meretzki, our President, John L. Bakos, and our Chief Financial Officer, Yossi Keret. 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.

Our success depends in large part on our ability to develop and protect our PluriX Bioreactor system technology. If our patents and proprietary right agreements do not provide sufficient protection for our PluriX Bioreactor system technology, our business and competitive position will suffer.

We rely on an exclusive, world-wide license relating to the production of human cells granted to us by the Weizmann Institute of Science and Technion-Israel Institute of Technology for certain of our patent rights. If we materially breach such agreement or otherwise fail to materially comply with such agreement, or if such agreement expires or is otherwise terminated by us, we may lose our rights under the patents held by the Weizmann Institute of Science and Technion-Israel Institute of Technology. At the latest, the license will terminate when the patents underlying the license expire. The underlying patents will expire in approximately 2020. Also, the scope of the patents licensed to us may not be sufficiently broad to offer meaningful protection. In addition, the patents licensed to us could be successfully challenged, invalidated or circumvented so that our patent rights would not create an effective competitive barrier. Significantly, we do not as yet have patents in the United States or Europe or any other major market, although patents have been applied for.

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.

We may be subject to intellectual property litigation such as patent infringement claims, which could adversely affect our business.

Our success will also depend in part on our ability to develop commercially viable technology without infringing the proprietary rights of others. Although we have not been subject to any filed infringement claims, other patents could exist or could be filed which would prohibit or limit our ability to develop and market our PluriX Bioreactor system in the future. In the event of an intellectual property dispute, we may be forced to litigate. Intellectual property litigation would divert management's attention from developing our technology and would force us to incur substantial costs regardless of whether we are successful. An adverse outcome could subject us to significant liabilities to third parties, and force us to curtail or cease the development and commercialization of our PluriX Bioreactor system.

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 the PluriX Bioreactor system during research and development efforts, including future clinical trials, or after commercialization 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 and, since September 2000, involving the Palestinian population, and a state of hostility, varying in degree and intensity, has led to security and economic problems for Israel and companies based in Israel. 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. Also, since the end of September 2000, there has been a marked increase in the level of terrorism in Israel, which has significantly damaged both the Israeli economy and levels 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 45 and 54 years old, depending upon the nature of their military service.

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 judgement 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 investors 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 or liquidity 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 or liquidity should not invest in our common stock.

Our stock is considered a penny stock and certain securities rules may hamper the tradability of our shares in the market.

See Market for Common Equity and Related Security Holder Matters .

FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements which relate to future events or our future financial performance. In some cases, you can identify forward-looking statements by terminology such as "may", "should", "expects", "plans", "anticipates", "believes", "estimates", "predicts", "potential" or "continue" or the negative of these terms or other comparable terminology. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, including the risks in the section entitled "Risk Factors" on pages 11 to 15, that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements.

While these forward-looking statements, and any assumptions upon which they are based, are made in good faith and reflect our current judgment regarding the direction of our business, actual results will almost always vary, sometimes materially, from any estimates, predictions, projections, assumptions or other future performance suggested herein. Except as required by applicable law, including the securities laws of the United States, we do not intend to update any of the forward-looking statements to conform these statements to actual results. The safe harbor for forward-looking statements provided in the Private Securities Litigation Reform Act of 1995 does not apply to the offering made in this prospectus.

SECURITIES AND EXCHANGE COMMISSION'S PUBLIC REFERENCE

Any member of the public may read and copy any materials filed by us with the Securities and Exchange Commission at the SEC's Public Reference Room at 450 Fifth Street, NW, Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. The SEC

maintains an Internet website (<http://www.sec.gov>) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

THE OFFERING

This prospectus relates to the resale by certain selling security holders of Pluristem Life Systems, Inc. of up to 70,565,000 shares of our common stock in connection with the resale of:

up to 8,500,000 shares of our common stock, representing those shares of our common stock that were sold to certain selling security holders pursuant to the Common Stock and Warrant Purchase Agreements entered into between the selling security holders and our company dated October 25, 2004 - see Description of the Agreements with Certain Selling Security Holders in the October 25, 2004 Private Placement

up to 8,500,000 shares of our common stock, representing those shares of our common stock that are issuable to certain security holders upon exercise of warrants issued in connection with the Common Stock and Warrant Purchase Agreements entered into between the selling security holders and our company dated October 25, 2004 - see Description of the Agreements with Certain Selling Security Holders in the October 25, 2004 Private Placement

up to 245,000 shares of our common stock, representing those shares of our common stock that are issuable to certain security holders upon exercise of warrants issued as consideration for services provided as placement agents - see Description of the Agreements with Certain Selling Security Holders in the October 25, 2004 Private Placement

up to 12,000,000 shares of our common stock, representing those shares of our common stock that were sold to certain selling security holders pursuant to the Common Stock and Warrant Purchase Agreements entered into between the selling security holders and our company dated January 24, 2005 - see Description of the Agreements with Certain Selling Security Holders in the January 24, 2005 Private Placement

up to 12,000,000 shares of our common stock, representing those shares of our common stock that are issuable to certain security holders upon exercise of warrants issued in connection with the Common Stock and Warrant Purchase Agreements entered into between the selling security holders and our company dated January 24, 2005 - see Description of the Agreements with Certain Selling Security Holders in the January 24, 2005 Private Placement

up to 1,845,000 shares of our common stock, representing those shares of our common stock that were issued to a security holder as consideration for services provided as a placement agent - see Description of the Agreements with Certain Selling Security Holders in the January 24, 2005 Private Placement

up to 475,000 shares of our common stock, representing those shares of our common stock that are issuable to certain security holders upon exercise of warrants issued as consideration for services provided as placement agents - see Description of the Agreements with Certain Selling Security Holders in the January 24, 2005 Private Placement

up to 12,000,000 shares of our common stock, representing those shares of our common stock that were sold to certain selling security holders pursuant to the Private Placement Subscription Agreements entered into between the selling security holders and our company dated January 31, 2005 - see Description of the Agreements with Certain Selling Security Holders in the January 31, 2005 Private Placement

up to 12,000,000 shares of our common stock, representing those shares of our common stock that are issuable to certain security holders upon exercise of warrants issued in connection with the Private Placement Subscription Agreements entered into between the selling security holders and our company

dated January 31, 2005 - see Description of the Agreements with Certain Selling Security Holders in the January 31, 2005 Private Placement and

up to 600,000 shares of our common stock, representing those shares of our common stock that are issuable to a security holder upon exercise of warrants issued as consideration for services provided as a placement agent - see Description of the Agreements with Certain Selling Security Holders in the January 31, 2005 Private Placement

up to 2,400,000 shares of our common stock, representing those shares of our common stock that are issuable to our Chief Executive Officer, Dr. Shai Meretzki, upon exercise of warrants issued to him in connection with the issuance of a Notice of Allowance by the United States Patent Office for our patent application number 09/890,401.

The selling security holders may sell the shares of common stock being offered in this prospectus at fixed prices, at prevailing market prices at the time of sale, at varying prices or at negotiated prices. We will not receive any proceeds from the resale of shares of our common stock by the selling security holder.

USE OF PROCEEDS

The shares of common stock offered by this prospectus are being registered for the account of the selling security holders named in this prospectus. As a result, all proceeds from the sales of the common stock will go to the selling security holders and we will not receive any proceeds from the resale of the common stock by the selling security holders. We will, however, incur all costs associated with this registration statement and prospectus.

Assuming all of the warrants for which the underlying shares of our common stock that are covered by this prospectus are exercised for cash, we will receive cash proceeds from the exercise of the warrants and we will use these proceeds for our general working capital.

DETERMINATION OF OFFERING PRICE

This prospectus covers the resale by the selling security holders named in this prospectus of up to 70,565,000 shares of our common stock. The selling security holder may offer to sell the shares of our common stock being offered in this prospectus at fixed prices, at prevailing market prices at the time of sale, at varying prices or at negotiated prices. We will not receive any proceeds from the resale of shares of our common stock by the selling security holder.

SELLING SECURITY HOLDERS

The selling security holders may offer and sell, from time to time, any or all of the common stock issued and those issuable to them upon exercise of the share purchase warrants. Because any one of the selling security holders may offer all or only some portion of the shares of common stock registered for such holder, no estimate can be given as to the amount or percentage of these shares of common stock that will be held by the selling security holders upon termination of the offering.

The following table sets forth certain information regarding the beneficial ownership of shares of common stock by the selling security holders as of April 18, 2005, and the number of shares of common stock covered by this prospectus. The number of shares in the table represents an estimate of the number of shares of common stock to be offered by the selling security holder.

The selling security holders identified by footnote 1 in the table below acquired their beneficial interests in the shares being offered hereby in the private placement described in this Prospectus under the caption Description of the Agreements with Certain Selling Security Holders in the October 25, 2004 Private Placement. The selling security holders identified by footnote 2 in the table below acquired their beneficial interests in the shares being offered hereby in the private placement described in this Prospectus under the caption Description of the

Agreements with Certain Selling Security Holders in the January 24, 2005 Private Placement. The selling security holders identified by footnote 3 in the table below acquired their beneficial interests in the shares being offered hereby in the private placement described in this Prospectus under the caption Description of the Agreements with Certain Selling Security Holders in the January 31, 2005 Private Placement.

Beneficial ownership is determined in accordance with SEC rules and includes voting or investment power with respect to the securities. This includes shares which a person or entity has the right to acquire in the next 60 days. However, each selling security holder identified by footnotes 1, 2, 3 or 4 in the table below is subject to certain limitations on the exercise of their warrants, if any. Therefore, although they are included in the table below, the number of shares of Common Stock for some listed selling security holders may include shares that are not subject to purchase during the 60-day period. Other than the relationships described below, none of the selling security holders had or have any material relationship with us. None of the selling security holders is a broker-dealer or an affiliate of a broker-dealer to our knowledge.

Name of Selling Security Holder and Position, Office or Material Relationship with Pluristem	Common Shares owned by the Selling Security Holder	Number of Shares Issuable Upon Exercise of all of the Share Purchase Warrants	Shares Offered Pursuant to this Offering	Number of Shares Owned by Selling Security Holder After Offering and Percent of Total Issued and Outstanding if All Shares Offered are Sold	
				# of Shares	% of Class
Park Ridge Investments A.V.V.	1,000,000 (1)	1,000,000 (1)	2,000,000	Nil	0%
Shay Britz	500,000 (1)	500,000 (1)	1,000,000	Nil	0%
Glenrock Israel Ltd.	600,000 (1)	600,000 (1)	1,200,000	Nil	0%
Bezalel Ziv Ron	100,000 (1)	100,000 (1)	200,000	Nil	0%
Alshuler-Shaham Ltd.	300,000 (1)	300,000 (1)	600,000	Nil	0%
Rolfe Investments Ltd.	250,000 (1)				