# OPEXA THERAPEUTICS, INC.

## FORM 424B3

(Prospectus filed pursuant to Rule 424(b)(3))

Filed 06/30/06

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| Address | 2635 TECHNOLOGY FOREST BLVD.<br>THE WOODLANDS, TX 77381 |
| Telephone | (281) 272-9331 |
| CIK | 0001069308 |
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| Sector | Healthcare |
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Filed Pursuant to Rule 424(b)(3)
Registration No. 333-134046

# Opexa Therapeutics, Inc.

7,113,720 Shares of Common Stock

This prospectus relates to the sale or disposition from time to time by the selling stockholders named herein and their transferees of up to 7,113,720 shares of our common stock, or interests therein, including 4,600,000 shares of common stock previously issued and 2,513,720 shares of common stock issuable upon the exercise of common stock purchase warrants.

Shares of our common stock are traded on the NASD OTC Bulletin Board under the symbol "OPXA.OB." On June 19, 2006, the last reported sales price for our common stock on the OTC Bulletin Board was $9.00 per share.

We will not receive any proceeds from the sale of the shares of our common stock covered by this prospectus. We will, however, receive the proceeds of any cash exercise of the common stock purchase warrants.

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**Investing in our common stock involves a high degree of risk. You should read carefully this entire prospectus, including the section captioned "Risk Factors" beginning on page 3, before making a decision to purchase our stock.**

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**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.**

The date of this prospectus is June 29, 2006.

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**You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information that is different. This prospectus may only be used where it is legal to sell these shares of our common stock. The information in this prospectus may only be accurate as of the date of this prospectus.**

**This prospectus provides you with a general description of the shares of our common stock that the selling stockholders may offer. Each time a selling stockholder sells shares of our common stock, the selling stockholder is required to provide you with a prospectus containing specific information about the selling stockholder and the terms of the shares of our common stock being offered to you.**

**This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission for a continuous offering. Under this prospectus, the selling stockholders may, from time to time, sell or otherwise dispose of the shares of our common stock described in this prospectus, or interests therein, in one or more offerings. This prospectus may be supplemented from time to time to add, update or change information in this prospectus. Any statement contained in this prospectus will be deemed to be modified or superseded for the purposes of this prospectus to the extent that a statement contained in a prospectus supplement modifies such statement. Any statement so modified will be deemed to constitute a part of this prospectus only as so modified, and any statement so modified will be deemed to constitute a part of this prospectus.**

**The registration statement containing this prospectus, including the exhibits to the registration statement, provides additional information about us, the selling stockholders and the shares of our common stock covered by this prospectus. The registration statement, including the exhibits, can be read on the SEC website or at the SEC offices mentioned under the heading "Where You Can Find More Information."**

## PROSPECTUS SUMMARY

*The following summary highlights selected information from this prospectus and does not contain all of the information that you should consider before investing in our common stock. This prospectus contains information regarding our businesses and detailed financial information. You should carefully read this entire prospectus, including the historical financial statements and related notes, before making an investment decision.*

*In this prospectus, "Opexa Therapeutics, Inc.," the "company," "we," "us" or "our" refer to "Opexa Therapeutics, Inc., a Texas corporation, and its subsidiaries, except where otherwise indicated or required by context. On June 19, 2006 we changed our name from PharmaFrontiers Corp. to Opexa Therapeutics, Inc.*

*On June 15, 2006 we completed a 1-for-10 reverse split of our common stock. Except where specifically indicated all references to a number of shares herein or per share amounts reflect the split.*

**Our Business**

We are a biopharmaceutical company engaged in developing autologous personalized cell therapies. Our strategy is to develop and commercialize cell therapies to treat several major diseases including multiple sclerosis, cardiovascular diseases, and diabetes. We have an exclusive license from Baylor College of Medicine to an individualized T cell therapy that is in FDA Phase I/II human dose ranging clinical trials to evaluate its safety and effectiveness in treating multiple sclerosis. We have an exclusive worldwide license for the intellectual property rights and research results of an autologous T cell vaccine for rheumatoid arthritis from the Shanghai Institutes for Biological Sciences (SIBS), Chinese Academy of Sciences of the People's Republic of China. We also have an exclusive license to a stem cell technology in which adult pluripotent stem cells are derived from monocytes obtained from the patient's own blood. We are initially pursuing indications in heart failure and Type I diabetes with our stem cell therapy.

Autologous therapies use cells or other materials from the patient's own body to create treatments for the patient, thus preventing rejection complications that result when "foreign" or "non-self" cells are introduced into a patient. Cellular therapies are expected to play a large role in the treatment and cure of a broad spectrum of human diseases. According to independent market researchers, cellular therapies along with their related technologies, such as diagnostics and blood banking, may exceed $30 billion by 2010.

Our multiple sclerosis cell therapy, Tovaxin™, is currently in Phase I/II studies. Tovaxin™ consists of modified autoreactive T cells. Multiple sclerosis is a result of a person's own T cells attacking the myelin sheath that coats the nerve cells of the central nervous system. These T cells, that attack a person's own body, are referred to as "autoreactive" T cells. In our treatment the T cells are taken from the patient, modified and returned to the patient. The modified T cells cause an immune response directed at the autoreactive T cells in the patient's body. This immune response reduces the level of autoreactive T cells and potentially allows the myelin sheath to be repaired. In addition, we are evaluating whether this technology will allow us to diagnose multiple sclerosis and determine the severity of the disease through an analysis of the level of autoreactive T cells in a patient's blood.

Two clinical studies of Tovaxin™ have reached critical milestones:

- The dose escalation study was designed for patients with relapsing-remitting or secondary-progressive MS, intolerant of, or having failed, current therapy. Blood was obtained from each patient from which T cells reactive to two peptides each of three proteins (MBP, PLP, and MOG) were expanded ex vivo and prepared as a trivalent formulation of MRTCs. The MRTCs were attenuated by Cesium137 irradiation prior to patients receiving subcutaneous injections of either 6-9 million cells (Dose 1) or 30-45 million cells (Dose 2) at weeks 0, 4, 12 and 20. MRTC frequencies were performed at baseline and weeks 5, 13, 21, 28 and 52. Patients were evaluated for changes in EDSS, MSIS and exacerbations.

Tovaxin is a patient-specific therapeutic vaccination strategy for MS patients. To formulate Tovaxin T cell vaccine, the patient's own myelin peptide-specific activated T cell lines are harvested and attenuated on the day of vaccine administration.

The study's results demonstrated that MRTCs in the peripheral blood were depleted in a dose dependent manner and analyses showed reductions in all three types of MRTCs at all follow-up visits. All patients in the Dose 2 group had a 100% reduction in MRTC counts at the week five follow-up visit. Percentage reductions were greater in the Dose 2 group than in the Dose 1 group at every follow-up visit. Correlation between the reduction in overall MRTC frequencies and the physical component of the MSIS (p=0.0086) was strong. There was a trend to improved EDSS (p=0.0561). The annual relapse rate (ARR) for the patients prior two years before therapy was 1.28 and following therapy the ARR was 0.10 (92 percent reduction) adjusted for the number of months in the study. The treatment appears to be safe and well tolerated with minimal adverse events and no dose-limiting toxicities.

- Phase I/II extension study: The analysis of data on ten (10) patients that have been enrolled in a Phase I/II open-label extension study of Tovaxin(TM) T-Cell vaccine in worsening multiple sclerosis indicates that the treatment is safe and well-tolerated. Adverse events were mild or moderate in severity. None of the ten patients reported an MS exacerbation while on study. Analysis of myelin-reactive T-cell (MRTC) counts showed a percentage reduction from baseline at 3, 6, and 9 months, for all three types of MRTC, as well as the Total MRTC. Reductions in disease assessment disability scores were observed at all follow-up visits. No therapy induced lesions were observed on week 52 MRI's for three patients. These results suggest that MRTC vaccination is safe and well tolerated and also suggest that MRTC vaccination reduces MRTC counts, as well as EDSS and MSIS scores.

In October 2005, the FDA approved the protocol for our Phase IIb clinical trial of Tovaxin. We intend to enroll the first patient in this pivotal Phase IIb in the first half of 2006.

Our Rheumatoid Arthritis (RA) T-cell vaccination (TCV) technology is conceptually similar to Tovaxin. RA is an autoimmune T-cell-mediated disease in which Pathogenic T-cells trigger an inflammatory autoimmune response of the synovial joints of the wrists, shoulders, knees, ankles and feet which causes pain, stiffness, and swelling around the joints. Our RA TCV technology allows the isolation of these pathogenic T-cells from synovial fluid drawn from a patient. We expand and modify these T-cells in our laboratory. The modified T-cells are injected subcutaneously into patients thereby inducing an immune response directed at the Pathogenic T-cells in the patient’s body. This immune response reduces the level of Pathogenic T-cells and potentially allows the reduction of joint swelling in RA patients. Human trials that have been conducted in China show minimal side-effects and promising efficacy measured as a reduction of joint swelling following the T-cell vaccination.

Our stem cell technology allows us to create adult pluripotent stem cells from monocytes isolated from blood drawn from the patient. We believe that these stem cells, if successfully developed, may provide the basis for therapies to treat a variety of diseases and conditions. We anticipate that our stem cell technology will have a significant competitive advantage over many of the other stem cell technologies. The peripheral blood monocytes, used by our technology to produce stem cells, have the advantage of being relatively abundant and easy and cost effective to obtain. Our technology does not have the collection and storage difficulties presented by umbilical cord blood or the controversial ethical and regulatory issues associated with embryonic stem cells. In addition, our technology is less difficult and less risky than collecting adult stem cells from tissues such as bone marrow, spinal fluid or adipose (fat) tissue. Furthermore, our stem cells are pluripotent, whereas adult stem cells used in competitive technologies are not likely to be pluripotent.

Our stem cell technology will also avoid rejection issues because it is autologous ("self"). This is as opposed to the embryonic, umbilical, and some adult stem cell technologies, which in some cases must be taken from one individual and given to another. Further, we believe our stem cell therapies will be regulated as autologous "manipulated" non-homologous use cell therapies. Thus, we use one's own stem cells, and we therefore do not expect to encounter the same significant pre-clinical and clinical development regulatory hurdles that embryonic, umbilical, and some adult stem cells therapies are expected to face.

Initially we are conducting pre-clinical research to develop stem cell therapies to treat Type I diabetes and heart failure. We believe that with our stem cell technology plus our additional technology related to the differentiation of stem cells into islet cells, we will be able to create insulin producing islet cells derived from the patient's own blood. We are currently conducting laboratory research and plan to move expeditiously through pre-clinical development of our diabetes stem cell therapy and, if successful, initiate human testing in 2006.

**Recent Developments**

On June 19, 2006 we amended our Articles of Incorporation in order to effect a 1-for-10 reverse stock spilt that did not reduce the number of shares of common stock we are authorized to issue, but increased the par value from $0.05 per share to $0.50 per share.

Also on June 19, 2006 we effected a name change from "PharmaFrontiers Corp." to "Opexa Therapeutics, Inc."

At our annual meeting on June 15, 2006 the shareholders approved an amendment of the Company's June 2004 Compensatory Stock Option Plan ("Plan") to i) increase the aggregate number of shares of common stock authorized for issuance under the Plan from 300,000 shares to 1,200,000 shares, and ii) increase the limitation on Performance Awards to be issued in any fiscal year pursuant to Section 5(d) of the Plan from 10,000 shares of common stock to 50,000 shares of common stock.

**Our Executive Offices**

Our principal executive and administrative office facility is located in The Woodlands, Texas at 2635 N. Crescent Ridge Drive, The Woodlands, Texas 77381 and our telephone number is (281) 272-9331. We maintain a website at www.opexa therapeutics.com, however the information on our website is not part of this prospectus, and you should rely only on information contained in this prospectus when making a decision as to whether or not to invest in shares of our common stock.

## RISK FACTORS

*The shares offered hereby have not been approved or disapproved by the SEC or the securities regulatory authority of any state, nor has any such regulatory body reviewed this prospectus for accuracy or completeness. The shares offered hereby are speculative, involve an unusually high degree of risk and should only be purchased by those who can afford to lose their entire investment. Therefore, prospective investors should carefully consider the following risk factors before purchasing the shares offered hereby.*

The following factors affect our business and the industry in which we operate. The risks and uncertainties described below are not the only ones that we face. Additional risks and uncertainties not presently known or that we currently consider immaterial may also have an adverse effect on our business. If any of the matters discussed in the following risk factors were to occur, our business, financial condition, results of operations, cash flows, or prospects could be materially adversely affected.

**Risks Related to Our Business**

**Our business is at an early stage of development.**

Our business is at an early stage of development. We do not have any products in late-stage clinical trials or on the market. We are still in the early stages of identifying and conducting research on potential products. Only one of our products has progressed to the stage of being studied in human clinical trials. Our potential products will require significant research and development and preclinical and clinical testing prior to regulatory approval in the United States and other countries. We may not be able to develop any products, to obtain regulatory approvals, to enter clinical trials for any of our product candidates, or to commercialize any products. Our product candidates may prove to have undesirable and unintended side effects or other characteristics adversely affecting their safety, efficacy or cost-effectiveness that could prevent or limit their use. Any product using any of our technology may fail to provide the intended therapeutic benefits, or achieve therapeutic benefits equal to or better than the standard of treatment at the time of testing or production.

**We have a history of operating losses and do not expect to be profitable in the near future.**

We have not generated any profits since our entry into the biotechnology business, have no source of revenues, and have incurred significant operating losses. We expect to incur additional operating losses for the foreseeable future and, as we increase our research and development activities, we expect our operating losses to increase significantly. We do not have any sources of revenues and may not have any in the foreseeable future.

**We will need additional capital to conduct our operations and develop our products and our ability to obtain the necessary funding is uncertain.**

We need to obtain significant additional capital resources from sources including equity and/or debt financings, license arrangements, grants and/or collaborative research arrangements in order to develop products and continue the Company's business. We believe that we have sufficient working capital to finance operations through the third quarter of 2007. Thereafter, we will need to raise additional working capital. Our current burn rate is approximately $800,000 per month excluding capital expenditures. The timing and degree of any future capital requirements will depend on many factors, including:

- the accuracy of the assumptions underlying our estimates for capital needs in 2006 and beyond;

- scientific progress in our research and development programs;
- the magnitude and scope of our research and development programs;
- our ability to establish, enforce and maintain strategic arrangements for research, development, clinical testing, manufacturing and marketing;
- our progress with preclinical development and clinical trials;
- the time and costs involved in obtaining regulatory approvals;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims; and
- the number and type of product candidates that we pursue.

We do not have any committed sources of capital, although we have issued and outstanding warrants that, if exercised, would result in an equity capital raising transaction. Additional financing through strategic collaborations, public or private equity financings, capital lease transactions or other financing sources may not be available on acceptable terms, or at all. Additional equity financings could result in significant dilution to our stockholders. Further, if additional funds are obtained through arrangements with collaborative partners, these arrangements may require us to relinquish rights to some of our technologies, product candidates or products that we would otherwise seek to develop and commercialize ourselves. If sufficient capital is not available, we may be required to delay, reduce the scope of or eliminate one or more of our programs, any of which could have a material adverse effect on our financial condition or business prospects.

**Approximately 88% of our total assets are comprised of intangible assets that are subject to review on a periodic basis to determine whether an impairment on these assets is required. An impairment would not only greatly diminish our assets, but would also require us to record a significant non-cash expense charge.**

We are required under generally accepted accounting principles to review our intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Goodwill is required to be tested for impairment at least annually. At March 31, 2006, our intangible assets, consisting of the University of Chicago license, the Shanghai Institute for Biological Science license and acquired intangible assets from the Opexa acquisition that is an inseparable group of patents and licenses that can't function independently, were approximately $25.8 million. If management determines that impairment exists, we will be required to record a significant charge to expense in our financial statements during the period in which any impairment of our goodwill is determined.

**Our financial statements include substantial non-operating gains or losses resulting from required quarterly revaluation under GAAP of our outstanding derivative instruments.**

Generally accepted accounting principles in the United States require that we report the value of certain derivative instruments we have issued as current liabilities on our balance sheet and report changes in the value of these derivatives as non-operating gains or losses on our statement of operations. The value of the derivatives is required to be recalculated (and resulting non-operating gains or losses reflected in our statement of operations and resulting adjustments to the associated liability amounts reflected on our balance sheet) on a quarterly basis, and is based on the market value of our common stock. Due to the nature of the required calculations and the large number of shares of our common stock involved in such calculations, changes in our common stock price may result in significant changes in the value of the derivatives and resulting gains and losses on our statement of operations.

**Clinical trials are subject to extensive regulatory requirements, very expensive, time-consuming and difficult to design and implement. Our products may fail to achieve necessary safety and efficacy endpoints during clinical trials.**

Human clinical trials are very expensive and difficult to design and implement, in part because they are subject to rigorous regulatory requirements. The clinical trial process is also time consuming. We estimate that clinical trials of our product candidates will take at least several years to complete. Furthermore, failure can occur at any stage of the trials, and we could encounter problems that cause us to abandon or repeat clinical trials. The commencement and completion of clinical trials may be delayed by several factors, including:

- unforeseen safety issues;
- determination of dosing issues;
- lack of effectiveness during clinical trials;
- slower than expected rates of patient recruitment;
- inability to monitor patients adequately during or after treatment; and
- inability or unwillingness of medical investigators to follow our clinical protocols.

In addition, we or the FDA may suspend our clinical trials at any time if it appears that we are exposing participants to unacceptable health risks or if the FDA finds deficiencies in our IND submissions or the conduct of these trials.

**We are dependent upon our management team and a small number of employees.**

Our business strategy is dependent upon the skills and knowledge of our management team. We believe that the special knowledge of these individuals gives us a competitive advantage. If any critical employee leaves, we may be unable on a timely basis to hire suitable replacements to effectively operate our business. We also operate with a very small number of employees and thus have little or no backup capability for their activities. The loss of the services of any member of our management team or the loss of a number of other employees could have a material adverse effect on our business.

**We are dependent on contract research organizations and other contractors for clinical testing and for certain research and development activities, thus the timing and adequacy of our clinical trials and such research activities are, to a certain extent, beyond our control.**

The nature of clinical trials and our business strategy requires us to rely on contract research organizations, independent clinical investigators and other third party service providers to assist us with clinical testing and certain research and development activities. As a result, our success is dependent upon the success of these outside parties in performing their responsibilities. Although we believe our contractors are economically motivated to perform on their contractual obligations, we cannot directly control the adequacy and timeliness of the resources and expertise applied to these activities by our contractors. If our contractors do not perform their activities in an adequate or timely manner, the development and commercialization of our drug candidates could be delayed.

**Our current research and manufacturing facility is not large enough to manufacture future stem cell and T-cell therapies.**

We conduct our research and development in a 10,000 square foot facility in The Woodlands, Texas, which includes a 1,200 square foot suite of three rooms for the future manufacture of stem cell and T-cell therapies through Phase III trials. Our current facility is not large enough to conduct commercial-scale manufacturing operations. We will need to expand further our manufacturing staff and facility, obtain a new facility or contract with corporate collaborators or other third parties to assist with future drug production.

In the event that we decide to establish a commercial-scale manufacturing facility, we will require substantial additional funds and will be required to hire and train significant numbers of employees and comply with applicable regulations, which are extensive. We do not have funds available for building a manufacturing facility, and we may not be able to build a manufacturing facility that both meets regulatory requirements and is sufficient for our commercial-scale manufacturing.

We may arrange with third parties for the manufacture of our future products. However, our third-party sourcing strategy may not result in a cost-effective means for manufacturing our future products. If we employ third-party manufacturers, we will not control many aspects of the manufacturing process, including compliance by these third parties with the FDA's current Good Manufacturing Practices and other regulatory requirements. We further may not be able to obtain adequate supplies from third-party manufacturers in a timely fashion for development or commercialization purposes, and commercial quantities of products may not be available from contract manufacturers at acceptable costs.

**Patents obtained by other persons may result in infringement claims against us that are costly to defend and which may limit our ability to use the disputed technologies and prevent us from pursuing research and development or commercialization of potential products.**

A number of pharmaceutical, biotechnology and other companies, universities and research institutions have filed patent applications or have been issued patents relating to cell therapy, stem cells, T-cells, and other technologies potentially relevant to or required by our expected products. We cannot predict which, if any, of such applications will issue as patents or the claims that might be allowed. We are aware that a number of companies have filed applications relating to stem cells. We are also aware of a number of patent applications and patents claiming use of stem cells and other modified cells to treat disease, disorder or injury.

If third party patents or patent applications contain claims infringed by either our licensed technology or other technology required to make and use our potential products and such claims are ultimately determined to be valid, there can be no assurance that we would be able to obtain licenses to these patents at a reasonable cost, if at all, or be able to develop or obtain alternative technology. If we are unable to obtain such licenses at a reasonable cost, we may not be able to develop some products commercially. There can be no assurance that we will not be obliged to defend ourselves in court against allegations of infringement of third party patents. Patent litigation is very expensive and could consume substantial resources and create significant uncertainties. An adverse outcome in such a suit could subject us to significant liabilities to third parties, require disputed rights to be licensed from third parties, or require us to cease using such technology.

**If we are unable to obtain future patents and other proprietary rights our operations will be significantly harmed.**

Our ability to compete effectively is dependent in part upon obtaining patent protection relating to our technologies. The patent positions of pharmaceutical and biotechnology companies, including ours, are uncertain and involve complex and evolving legal and factual questions. The coverage sought in a patent application can be denied or significantly reduced before or after the patent is issued. Consequently, we do not know whether the patent applications for our technology will result in the issuance of patents, or if any future patents will provide significant protection or commercial advantage or will be circumvented by others. Since patent applications are secret until the applications are published (usually eighteen months after the earliest effective filing date), and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain that the inventors of our licensed patents were the first to make the inventions covered by the patent applications or that the licensed patent applications were the first to be filed for such inventions. There can be no assurance that patents will issue from the patent applications or, if issued, that such patents will be of commercial benefit to us, afford us adequate protection from competing products, or not be challenged or declared invalid.

**Our competition includes fully integrated biopharmaceutical and pharmaceutical companies that have significant advantages over us.**

The markets for therapeutic stem cell products, multiple sclerosis products, and rheumatoid arthritis products are highly competitive. We expect that our most significant competitors are fully integrated pharmaceutical companies and more established biotechnology companies. These companies are developing stem cell-based products and they have significantly greater capital resources and expertise in research and development, manufacturing, testing, obtaining regulatory approvals, and marketing than we currently do. Many of these potential competitors are further along in the process of product development and also operate large, company-funded research and development programs. As a result, our competitors may develop more competitive or affordable products, or achieve earlier patent protection or product commercialization than we are able to achieve. Competitive products may render any products or product candidates that we develop obsolete.

**If we fail to meet our obligations under our license agreements, we may lose our rights to key technologies on which our business depends.**

Our business depends on three licenses from third parties. Additionally, any business relating to a T cell vaccine for rheumatoid arthritis depends upon a license from the Shanghai Institute for Biological Science. These third party license agreements impose obligations on us, such as payment obligations and obligations to diligently pursue development of commercial products under the licensed patents. If a licensor believes that we have failed to meet our obligations under a license agreement, the licensor could seek to limit or terminate our license rights, which could lead to costly and time-consuming litigation and, potentially, a loss of the licensed rights. During the period of any such litigation, our ability to carry out the development and commercialization of potential products could be significantly and negatively affected. If our license rights were restricted or ultimately lost, our ability to continue our business based on the affected technology platform could be severely adversely affected.

**Restrictive and extensive government regulation could slow or hinder our production of a cellular product.**

The research and development of stem cell therapies is subject to and restricted by extensive regulation by governmental authorities in the United States and other countries. The process of obtaining U.S. Food and Drug Administration, or FDA, and other necessary regulatory approvals is lengthy, expensive and uncertain. We may fail to obtain the necessary approvals to continue our research and development, which would hinder our ability to manufacture or market any future product.

**To be successful, our product candidates must be accepted by the health care community, which can be very slow to adopt or unreceptive to new technologies and products.**

Our product candidates, if approved for marketing, may not achieve market acceptance since hospitals, physicians, patients or the medical community in general may decide to not accept and utilize these products. The product candidates that we are attempting to develop represent substantial departures from established treatment methods and will compete with a number of more conventional drugs and therapies manufactured and marketed by major pharmaceutical companies. The degree of market acceptance of any of our developed products will depend on a number of factors, including:

- our establishment and demonstration to the medical community of the clinical efficacy and safety of our product candidates;
- our ability to create products that are superior to alternatives currently on the market;
- our ability to establish in the medical community the potential advantage of our treatments over alternative treatment methods; and
- reimbursement policies of government and third-party payers.

If the health care community does not accept our products for any of the foregoing reasons, or for any other reason, our business would be materially harmed.

***Risks Related to Our Common Stock***

**There is currently a limited market for our common stock, and any trading market that exists in our common stock may be highly illiquid and may not reflect the underlying value of our net assets or business prospects.**

Although our common stock is currently traded on the OTC Bulletin Board, there is currently a limited market for our common stock and there can be no assurance that an improved market will ever develop. Investors are cautioned not to rely on the possibility that an active trading market may develop.

**As our share price is volatile, we may be or become the target of securities litigation, which is costly and time-consuming to defend.**

In the past, following periods of market volatility in the price of a company's securities or the reporting of unfavorable news, security holders have often instituted class action litigation. If the market value of our common stock experiences adverse fluctuations and we become involved in this type of litigation, regardless of the outcome, we could incur substantial legal costs and our management's attention could be diverted from the operation of our business, causing our business to suffer.

**Our "blank check" preferred stock could be issued to prevent a business combination not desired by management or our current majority shareholders.**

Our articles of incorporation authorize the issuance of "blank check" preferred stock with such designations, rights and preferences as may be determined by our board of directors without shareholder approval. Our preferred stock could be utilized as a method of discouraging, delaying, or preventing a change in our control and as a method of preventing shareholders from receiving a premium for their shares in connection with a change of control.

**Future sales of our common stock in the public market could lower our stock price.**

We may sell additional shares of common stock in subsequent public or private offerings. We may also issue additional shares of common stock to finance future acquisitions. We cannot predict the size of future issuances of our common stock or the effect, if any, that future issuances and sales of shares of our common stock will have on the market price of our common stock. Sales of substantial amounts of our common stock (including shares issued in connection with an acquisition), or the perception that such sales could occur, may adversely affect prevailing market prices for our common stock.

**We presently do not intend to pay cash dividends on our common stock.**

We currently anticipate that no cash dividends will be paid on the common stock in the foreseeable future. While our dividend policy will be based on the operating results and capital needs of the business, it is anticipated that all earnings, if any, will be retained to finance the future expansion of the our business. Therefore, prospective investors who anticipate the need for immediate income by way of cash dividends from their investment should not purchase the shares offered in this offering.

## FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933. These statements relate to future events and/or future financial performance and involve known and unknown risks, uncertainties and other factors that may cause the actual results, levels of our activity, performance or achievements or the industry in which we operate to be materially different from any future results, levels of activity, performance or achievements expressed or implied by the forward-looking statements. These risks and other factors include those listed under “Risk Factors” and those described elsewhere in this prospectus.

In some cases, you can identify forward-looking statements by our use of terms such as “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “potential,” or the negative of these terms or other comparable terminology. These statements are only predictions. Actual events or results may differ materially. In evaluating these statements, you should specifically consider various factors, including the risks outlined under “Risk Factors.” These factors may cause our actual results to differ materially from any forward-looking statement.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee future results, levels of activity, performance, or achievements. Moreover, neither the Company nor any other person assumes responsibility for the accuracy and completeness of these forward-looking statements. We do not intend to update any of the forward-looking statements after the date of this prospectus to conform prior statements to actual results.

## USE OF PROCEEDS

The selling stockholders will receive all of the proceeds from the sale or other disposition of the shares of our common stock covered hereby, or interests therein. We will not receive any of the proceeds from any such sale by any selling stockholder. See “Selling Stockholders.” We will, however, receive all of the net proceeds of any cash exercise of the warrants. If all of the warrants were exercised for cash, the proceeds to us would be approximately $14,950,000. Any net proceeds from the cash exercise of the warrants will be added to working capital and used for general corporate purposes. No assurance can be given as to whether or how many of the warrants will be exercised for cash.

## PRICE RANGE OF OUR COMMON STOCK AND DIVIDEND POLICY

Shares of our common stock are traded on the National Association of Securities Dealers Inc. Over the Counter Bulletin Board under the symbol "OPXA.OB". Our common stock trades on a limited, sporadic and volatile basis. As of June 19, 2006, the last reported sales price of our common stock on the OTC Bulletin Board was $9.00. As of June 19, 2006, there were 6,696,704 shares of our common stock outstanding that were held of record by 935 persons.

The following table sets forth, for the periods indicated, the range of high and low bid information for our common stock. These quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission, and may not represent actual transactions.

| | Price Ranges [1] | |
|---|---|---|
| | High | Low |
| **Fiscal Year Ended December 31, 2004** | | |
| First Quarter | $ 0.03 | $ 0.01 |
| Second Quarter | 14.25 | 0.01 |
| Third Quarter | 8.15 | 6.50 |
| Fourth Quarter | 9.50 | 5.90 |
| **Fiscal Year Ended December 31, 2005** | | |
| First Quarter | 8.70 | 4.50 |
| Second Quarter | 5.50 | 2.46 |
| Third Quarter | 1.41 | 1.25 |
| Fourth Quarter | 0.63 | 0.59 |
| **Fiscal Year Ended December 31, 2006** | | |
| First Quarter | 0.62 | 0.55 |
| Second Quarter through June 19, 2006 | 5.10 | 10.10 |

**(1)** Except for the Second Quarter of 2006, the price ranges do not give effect to the 1-for-10 reverse split. We have adjusted all prices for the second quarter of 2006 for the 1-for-10 reverse split to determine a high and low price for such period.

Holders of shares of common stock will be entitled to receive cash dividends when, as and if declared by our Board of Directors, out of funds legally available for payment thereof. However, if dividends are not declared by our Board of Directors, no dividends shall be paid. We have not paid any dividends on our common stock since our inception.

We do not anticipate that any cash dividends will be paid in the foreseeable future. While our dividend policy will be based on the operating results and capital needs of the business, we anticipate that all earnings, if any, will be retained to finance our future expansion. Therefore, prospective investors who anticipate the need for immediate income by way of cash dividends from their investment should not purchase the shares offered by this prospectus.

## SELECTED HISTORICAL FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this prospectus. The selected consolidated financial data in this section is not intended to replace the consolidated financial statements and accompanying footnotes. The selected consolidated balance sheet data as of December 31, 2005 and 2004 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. The selected consolidated financial data for the three months and as of March 31, 2006 are unaudited. Historical results are not necessarily indicative of the results to be expected in the future.

| | Three Months Ended March 31, 2006 | Year Ended December 31, 2005 | Year Ended December 31, 2004 |
|---|---|---|---|
| **Consolidated Statements of Operations Data:** | | | |
| Revenues | $ - | $ - | $ - |
| Operating Expenses: | | | |
| General and administrative | $ 1,075,882 | $ 550,178 | $ 572,534 |
| Depreciation and amortization | 432,333 | 1,735,209 | 264,819 |
| Research and development | 738,450 | 9,892,253 | 2,465,634 |
| Loss on disposal of assets | 362 | 22,810 | 457,122 |
| Net operating loss | (2,247,027) | (12,200,450) | (3,760,109) |
| Interest Income | 19,621 | 81,930 | 5,992 |
| Other Income | 3,385 | 28,174 | 2,379 |
| Gain on derivative liability | 254,140 | 3,896,841 | -- |
| Interest expense | (429) | (7,323,851) | (868,926) |
| Net loss | $ (1,970,310) | $ (15,517,356) | $ (4,620,664) |
| Net loss per common share, basic and diluted [1] | $ (0.10) | $ (0.99) | $ (0.73) |
| Weighted average number of common shares outstanding, basic and diluted [1] | 20,654,294 | 15,648,365 | 6,309,145 |

[1] Not adjusted for 1-for-10 reverse split of common stock effected on June 19, 2006.

| | As of March 31, 2006 | As of December 31, 2005 | As of December 31, 2004 |
|---|---|---|---|
| **Consolidated Balance Sheet Data:** | | | |
| Cash and cash equivalents and prepaid expenses | 1,268,344 | 2,743,190 | 946,329 |
| Intangible assets | 25,846,159 | 26,130, 441 | 26,791,073 |
| Fixed Assets | 549,574 | 479,996 | 341,984 |
| Other assets | 450,943 | 388,210 | - |
| Total assets | 28,115,020 | 29,741,837 | 28,079,386 |
| Current liabilities | 8,870,534 | 9,191,431 | 4,883,165 |
| Common stock | 1,048,351 | 1,030,977 | 502,992 |
| Additional paid in capital | 40,430,468 | 39,783,452 | 27,439,896 |
| Deficit accumulated during the development stage | (22,234,333) | (20,264,023) | (4,746,667) |
| Total stockholders' equity | 19,244,486 | 20,550,406 | 23,196,221 |
| Total liabilities and stockholders' equity | 28,115,020 | 29,741,837 | 28,079,386 |

## MANAGEMENT'S DISCUSSION AND ANALYSIS
## OF FINANCIAL CONDITIONS AND RESULTS OF OPERATIONS

The following discussion of our financial condition and results of operations should be read together with the consolidated financial statements and related notes that are included elsewhere in this prospectus. This discussion may contain forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under "Risk Factors", "Disclosure Regarding Forward-Looking Statements" or in other parts of this prospectus. We undertake no obligation to update any information in our forward-looking statements except as required by law.

**Overview**

We are a development-stage company and have a limited operating history. Our predecessor company for financial reporting purposes was formed on January 22, 2003 to acquire rights to our adult stem cell technology. In November 2004 we acquired Opexa Pharmaceuticals, Inc. and its multiple sclerosis treatment technology. We are still developing all of our technology, and to date, we have not generated any revenues from our operations. As we continue to execute our operations plan, we expect our development and operating expenses to increase.

*Research and development* . We have made and expect to continue to make substantial investments in research and development in order to develop and market our technology. Research and development costs consist primarily of general and administrative and operating expenses related to research and development activities. We expense research and development costs as incurred. Property, plant and equipment for research and development that has an alternative future use is capitalized and the related depreciation is expensed as research and development costs. We expect our research and development expense to increase as we continue to invest in the development of our technology.

*General and administrative* . General and administrative expenses consist primarily of salaries and benefits, office expense, professional services fees, and other corporate overhead costs. We anticipate increases in general and administrative expenses as we continue to develop and prepare for commercialization of our technology

**Results of Operations**

***Comparison of Three Months Ended March 31, 2006 with the Three Months Ended March 31, 2005***

**Net Sales.** We recorded no sales for the three months ended March 31, 2006 and 2005.

**General and Administrative Expenses.** Our general and administrative expenses decreased during the three months ended March 31, 2006 to $1,075,882 as compared to $1,206,715 from the same period in 2005. The decrease in general and administrative expenses is due primarily to a reduction in legal fees associated with patent filings, a lower allocation of facilities costs and overhead now allocated to research and development offset in part by an increase in stock-based compensation expense. In January 1, 2006, we adopted Statement of Financial Accounting Standards No. 123 (revised 2004), “Share-Based Payment,” (“SFAS 123R”) which requires the measurement and recognition of compensation expense for all share-based payment awards made to our employees and directors including stock options and restricted stock based on estimated fair values. We elected to adopt the modified prospective transition method as provided by SFAS 123R and, accordingly, prior year results have not be restated. Stock-based compensation expense recognized under SFAS 123R for the three months ended March 31, 2006 was $484,392.

**Research and Development Expenses.** Research and development expense increased to $738,450 for the three months ended March 31, 2006 compared to $644,264 for the same period in 2005. The increase is primarily related an increase in consulting fees related to our Rheumatoid Arthritis program and a higher allocation of facilities and overhead costs to research and development due to increased development activities.

**Interest Expense.** Interest expense was $429 for the three months ended March 31, 2006 compared to $1,487,384 for the same period in 2005. The interest expense during 2005 was due to notes that were outstanding during the first quarter of 2005 which were subsequently converted into equity in June 2005.

**Gain (loss) on derivative instruments liabilities, net.** We recognized a gain on derivative instruments of $254,140 for the three months ended March 31, 2006. This gain is a result of the net unrealized (non-cash) change in the fair value of our derivative instrument liabilities related to certain warrants.

**Net loss.** The Company had net loss for the three months ended March 31, 2006, of ($1,970,310), or ($0.10) per share (basic and diluted), compared with a net loss of ($3,747,304), or ($0.37) per share (basic and diluted), for the same period in 2005. The net loss per share amounts to do not give effect to the 1-for-10 reverse split of the Company's common stock effected on June 19, 2006. The decrease in net loss is primarily due to the reduction in interest expense discussed above.

**Recent Financing**

In Apri1 2006, the Company closed upon a transaction in which the Company issued 4,600,000 shares of the Company's common stock and warrants to purchase 2,300,000 shares of the Company's common stock for $23,000,000 to certain institutional and accredited investors (the "Financing").

The warrants will expire in five years, and are exercisable at $6.50 per share. The warrants contain standard adjustment provisions for stock splits, distributions, reorganizations, mergers and consolidations. The Company has the right to call the warrants commencing one year from the effective date of a resale registration statement if the closing bid price per share of the Company's common stock equals or exceeds $13.00 for twenty consecutive trading days in which the daily average trading volume of the common stock is at least 20,000 shares. Additionally, if the resale registration statement is not effective for any period after April 13, 2007, then the warrant holders may exercise their warrants on a cashless basis during the period the resale registration statement is not effective.

***Comparison of Year Ended December 31, 2005 with the Year Ended December 31, 2004***

**Net Sales.** We recorded no sales for the twelve months ended December 31, 2005 and 2004.

**General and Administrative Expenses.** Our general and administrative expenses during the twelve months ended December 31, 2005, was $550,178 as compared to $572,534 for the twelve months ended December 31, 2004. General and administrative expenses consist primarily of salaries and benefits, office expense, professional services fees, and other corporate overhead costs. We anticipate increases in general and administrative expenses as we continue to develop and prepare for commercialization of our technology.

**Research and Development Expense.** Research and development expense was $9,892,253 for the twelve months ended December 31, 2005, as compared to $2,465,634 the twelve months ended December 31, 2004. The increase in expenses was primarily due the acquisition of Opexa and the assumption of its operations and research and development programs as well as our Phase I/II clinical trials for Tovaxin, stem cell development and pre-clinical costs, the hiring of personnel and other expenses associated with the increase in research and development efforts. We have made and expect to continue to make substantial investments in research and development in order to develop and market our technology. Research and development costs consist primarily of general and administrative and operating expenses related to research and development activities. We expense research and development costs as incurred. Property, plant and equipment for research and development that has an alternative future use is capitalized and the related depreciation is expensed as research and development costs. We expect our research and development expense to increase as we continue to invest in the development of our technology.

**Interest Expense.** Interest expense was $7,323,851 for the twelve months ended December 31, 2005 compared to $868,926 for the twelve months ended December 31, 2004. The increase is primarily related to the amortization of the remaining discount under the beneficial conversion feature of the 15% exchangeable convertible promissory notes (the "Notes"); in 2005 the accrued interest on the Notes was converted into shares of Common Stock.

**Gain (loss) on derivative instruments liabilities, net.** The Company recognized a gain on derivative instruments of $3,896,841 for the year ended December 31, 2005. The decrease is a result of the net unrealized (non-cash) change in the fair value of our derivative instrument liabilities related to certain warrants.

**Net loss.** We had net loss for the year ended December 31, 2005, of $15,517,356 or ($0.99) per share (basic and diluted), compared with a net loss of $4,620,664 or ($.73) per share (basic and diluted), for the twelve months ended December 31, 2004. The net loss per share for the years ended December 31, 2005 and 2004 does not consider the 1-for-10 reverse split of common shares effected June 19, 2006. The primary reason for the increase in net loss is due primarily to the amortization of the remaining discount under the beneficial conversion feature of the Notes and the accrued interest on the Notes that was converted into shares of common stock, along with start-up of operations which included the hiring of new personnel including employees and directors and scientific advisory board members. These individuals have agreements with us that provide for salary payments. The increase in net loss is also attributable to the acquisition of Opexa Pharmaceuticals and the assumption of its operations and research and development programs. Also included are professional fees incurred from legal, accounting, and consulting services to secure and expand our license patent claims. Anticipated future expenses include research and development, professional and consulting fees, and expenses associated with the expansion of the office and laboratory/manufacturing facilities. The increase in net loss for 2005 was offset in part by the (non-cash) gain on derivative liability of $3,896,841 recognized during the year ended December 31, 2005.

**Liquidity and Capital Resources**

Historically, we have financed operations primarily from the sale of debt and equity securities. As of December 31, 2005, we had cash of approximately $2,500,000. Our current burn rate is approximately $800,000 per month excluding capital expenditures. As a result of the April 2006 financing, we believe that we have sufficient working capital to fund operations through the third quarter of 2007. Thereafter, we will need to raise additional capital to fund our working capital needs. We do not have any material commitments from investors or any credit facilities available with financial institutions or any other third parties. Therefore, we expect that we will need to engage in a best efforts sales of our securities to raise needed working capital. There is no assurance that we will be successful in any funding effort. The failure to raise such funds will necessitate the curtailment of operations and delay of the start of the clinical trials.

**Off-Balance Sheet Arrangements**

As of March 31, 2006, we had no off-balance sheet arrangements.

**Critical Accounting Policies**

Our discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We believe the following critical accounting policies affect our most significant judgments and estimates used in preparation of our consolidated financial statements.

*Reverse Acquisition* . We treated the merger of PharmaFrontiers Corp. into Sportan as a reverse acquisition. Pursuant to the guidance in Appendix B of SEC Accounting Disclosure Rules and Practices Official Text, the "merger of a private operating company into a non-operating public shell corporation with nominal net assets typically results in the owners and management of the private company having actual or effective operating control of the combined company after the transaction, with the shareholders of the former public shell continuing only as passive investors. These transactions are considered by the staff to be capital transactions in substance, rather than business combinations. That is, the transaction is equivalent to the issuance of stock by the private company for the net monetary assets of the shell corporation, accompanied by a recapitalization." Accordingly, the reverse acquisition has been accounted for as a recapitalization. For accounting purposes, the original PharmaFrontiers Corp. is considered the acquirer in the reverse acquisition. The historical financial statements are those of the original PharmaFrontiers Corp. Earnings per share for periods prior to the merger are restated to reflect the number of equivalent shares received by the acquiring company.

*Impairment of Long-Lived Assets* . We review long-lived assets and certain identifiable assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If the sum of the expected future undiscounted cash flows is less than the carrying amount of the asset, further impairment analysis is performed. An impairment loss is measured as the amount by which the carrying amount exceeds the fair value of assets.

*Stock-Based Compensation.* Effective January 1, 2006, we adopted the provisions of Statement of Financial Accounting Standards No. 123R, "Share-Based Payment" ("SFAS 123R") which establishes accounting for equity instruments exchanged for employee service. We utilize the Black-Scholes option pricing model to estimate the fair value of employee stock based compensation at the date of grant, which requires the input of highly subjective assumptions, including expected volatility and expected life. Further, as required under SFAS 123R, we now estimate forfeitures for options granted, which are not expected to vest. Changes in these inputs and assumptions can materially affect the measure of estimated fair value of our share-based compensation. These assumptions are subjective and generally require significant analysis and judgment to develop. When estimating fair value, some of the assumptions will be based on, or determined from, external data and other assumptions may be derived from our historical experience with stock-based payment arrangements. The appropriate weight to place on historical experience is a matter of judgment, based on relevant facts and circumstances.

We estimated volatility by considering historical stock volatility. As allowed by Staff Accounting Bulletin (SAB) No. 107, Share-Based Payment, we have opted to use the simplified method for estimating expected term equal to the midpoint between the vesting period and the contractual term.

*Research and Development* . The costs of materials and equipment or facilities that are acquired or constructed for research and development activities and that have alternative future uses are capitalized as tangible assets when acquired or constructed. The cost of such materials consumed in research and development activities and the depreciation of such equipment or facilities used in those activities are research and development costs. However, the costs of materials, equipment, or facilities acquired or constructed for research and development activities that have no alternative future uses are considered research and development costs and are expensed at the time the costs are incurred.

*Accounting for Derivative Instruments.* Statement of Financial Accounting Standard ("SFAS") No. 133, "Accounting for Derivative Instruments and Hedging Activities," as amended, requires all derivatives to be recorded on the balance sheet at fair value. These derivatives are separately valued and accounted for on our balance sheet. Fair values for securities traded in the open market and derivatives are based on quoted market prices. Where market prices are not readily available, fair values are determined using market based pricing models incorporating readily observable market data and requiring judgment and estimates.

The pricing model we use for determining fair values of our derivatives is the Black Scholes Pricing Model. Valuations derived from this model are subject to ongoing internal and external verification and review. The model uses market-sourced inputs such as interest rates, exchange rates and stock price volatilities. Selection of these inputs involves management's judgment and may impact net income.

In September 2000, the Emerging Issues Task Force ("EITF") issued EITF 00-19, "Accounting for Derivative Financial Instruments Indexed to and Potentially Settled in, a Company's Own Stock," ("EITF 00-19") which requires freestanding contracts that are settled in a company's own stock, including common stock warrants, to be designated as an equity instrument, asset or a liability. Under the provisions of EITF 00-19, a contract designated as an asset or a liability must be carried at fair value on a company's balance sheet, with any changes in fair value recorded in the company's results of operations. A contract designated as an equity instrument must be included within equity, and no fair value adjustments are required. In accordance with EITF 00-19, in June 2006, we determined that certain outstanding warrants to purchase our common stock should be separately accounted for as liabilities. We had not classified these derivative liabilities as such in our historical financial statements. In order to reflect these changes, we restated our financial statements for the year ended December 31, 2005 and for the three months ended March 31, 2006 to record the fair value of these warrants on our balance sheet and record unrealized changes in the values of these derivatives in our consolidated statement of operations as "Gain (loss) on derivative liabilities."

We have evaluated the provisions of the registration rights agreement that require us to pay registration delay payments in combination with the financial instrument and concluded that the combined instrument meets the definition of a derivative under SFAS 133.

The EITF recently deliberated the impact of liquidated damages clauses in registration rights agreements and the effect on accounting and classification of instruments subject to the scope of EITF 00-19 in EITF 05-04 The Effect of a Liquidated Damages Clause on a Freestanding Financial Instrument Subject to Issue No. 00-19. The EITF has not reached a consensus on this issue and has deferred deliberation until the FASB addresses certain questions which could impact a conclusion on this issue. Specifically, EITF 05-04 presents alternative views on whether the liquidated damages provisions in registration rights agreements should be combined with or treated separately from the associated financial instrument. As discussed above, we view the registration rights agreement and the financial instrument as one combined freestanding instrument. If the EITF were to adopt the view that the registration rights agreement should be viewed as a separate instrument from the financial instrument, we may have to account for additional derivatives.

## OUR BUSINESS

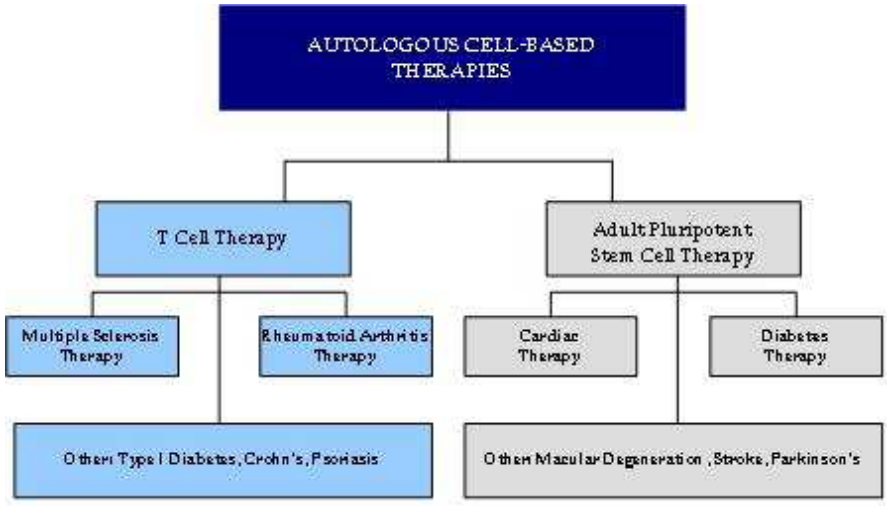
**Overview**

We are a biopharmaceutical company engaged in developing autologous personalized cell therapies. Our strategy is to develop and commercialize cell therapies to treat several major diseases including multiple sclerosis, cardiovascular diseases, and diabetes. We have an exclusive license to an individualized T cell therapy that is in FDA Phase I/II human dose ranging clinical trials to evaluate its safety and effectiveness in treating multiple sclerosis. We also have an exclusive license to a stem cell technology in which adult pluripotent stem cells are derived from monocytes obtained from the patient's own blood. We are initially pursuing indications in heart failure and Type I diabetes with our stem cell therapy.

Our lead product, Tovaxin™, is a T-cell-based therapeutic vaccine for MS, offering a unique and personalized approach to treating the disease by inducing an immune response against the pathogenic myelin autoreactive T-cells. Tovaxin has just been accepted by the U.S. Food and Drug Administration's (FDA) Center for Biologics Evaluation and Research (CBER) for a Phase IIb clinical study, entitled "A Multicenter, Randomized, Double-Blind, Placebo-Controlled Study of Subcutaneous Tovaxin™ in Subjects with Clinically Isolated Syndrome or Relapsing Remitting Multiple Sclerosis" following two successful Phase I/II open-label studies. The results from two Tovaxin Phase I/II clinical trials provided safety and effectiveness information. Human trials have shown that the our T-cell vaccination (TCV) safely induces immune responses that deplete and regulate myelin autoreactive T-cells, thus stabilizing the disease and it is the first MS drug to demonstrate sustained improvement in many of the patients and sustained reversal of disability in some of the patients that were treated. Moreover, we are evaluating T-cell assay technology, which can be used to monitor T-cell therapy and may have the potential for early diagnosis of MS.

We also hold the exclusive worldwide license to adult pluripotent stem cells derived from peripheral blood monocytes that allow for the isolation, propagation, and differentiation into cells and tissues for patient-specific cell-based therapies. We are currently pursuing indications for congestive heart failure (CHF) and Type 1 diabetes (T1D) with its stem cell technology. We expect to conduct basic research to determine the potential use of its stem cells in other indications, such as macular degeneration, stroke, and Parkinson's disease.

**Overview of Opexa Therapeutics Technologies and Programs**



In the United States, approximately 400,000 people suffer from multiple sclerosis, a chronic progressive autoimmune disease of the central nervous system (CNS) that is caused by myelin autoreactive T-cells progressively eroding the myelin that surrounds and insulates nerve fibers of the brain and spinal cord. Globally, there are approximately 2.5 million MS patients representing a drug market in excess of $4 billion. The US markets accounted for 50 per cent of global MS sales in 2004, at US$2.3 billion. MS remains a challenging autoimmune disease to study because the pathophysiologic mechanisms are diverse, and the chronic, unpredictable course of the disease makes it difficult to determine whether the favorable effects of short-term treatment will be sustained. Therapies that can prevent or stop the progression of disease and allow reversal of the neurological damage and disability caused by the disease represent the greatest unmet need in MS.

In recent years, the understanding of MS pathogenesis has evolved to comprise an initial, T-cell-mediated inflammatory activity followed by selective demyelination (erosion of the myelin coating of the nerve fibers) and then neurodegeneration. The discovery of disease-relevant immune responses has accelerated the development of targeted therapeutic products for the treatment of the early stages of MS. Healthy individuals have been found to have autoreactive T-cells, which recognize a variety of self-antigens (e.g., myelin basic protein [MBP], proteolipid protein [PLP], and myelin oligodendrocyte glycoprotein [MOG]) as part of the normal T-cell repertoire and circulate naturally in the periphery without causing an autoimmune disease.

Some subjects unfortunately who have the appropriate genetic background have increased susceptibility for the in vivo activation and clonal expansion of myelin autoreactive T-cells. These myelin autoreactive T-cells may remain dormant, but at some point they are activated in the periphery, possibly by molecular mimicry (i.e., recognition of epitopes that are common to autoantigens and microbial antigens as exogenous triggers), thus enabling them to cross the blood-brain barrier (BBB) and infiltrate the healthy tissue of the brain and spinal cord. The cascade of pathogenic events leads to demyelination of axons, which causes nerve impulse transmissions to diffuse into the tissue.

**Current Therapy for Multiple Sclerosis**

Current MS disease modifying drugs on the market are only palliative and generally work through a mechanism of immunomodulation or immunosuppression. These therapies for MS are dominated by three forms of interferon that require frequent subcutaneous or intramuscular injections. Copaxone is an immunomodulator composed of a random copolymer of amino acids that is administered daily. Novantrone (mitoxanthrone) is an immunosuppressive drug that can only be given four times per year with a life time limit of 8 to 12 doses. All of the current therapies only slow the progression of MS and they have significant patient compliance challenges because of the dosing schedule, limited decrease in relapse rate, side effects profile (e.g., the interferon formulations produce severe flu-like symptoms, injection site reactions, infection and neutralizing antibodies (range from 5% to 45%) are developed that limits the efficacy of treatment; copaxone causes significant injection site reactions; while novantrone causes infections, bone marrow suppression, nausea, hair thinning, bladder infections, and mouth sores). These drugs must be administered daily to weekly and they reduce relapses by about 38-75% (as compared to a patient's prior 2-year history).

Tysabri, a selective adhesion molecule inhibitor (an alpha 4 integrin antagonist), represents another class of MS drugs which works by preventing immune system cells (all leukocytes carrying the alpha 4 integrin glycoprotein on their surface) from crossing the BBB and move into the CNS. Unfortunately, Tysabri blocks the movement of all inflammatory T-cells not just the myelin autoreactive T-cells and leaves patients at a risk of life threatening infections. Tysabri with a reduction in relapse rates of 67% (versus placebo) was still expected to generate $2 to 3 billion in peak annual sales in an existing products market of approximately $4 billion had it not been for the severe side effects.

A number of companies have committed resources to research and development programs to develop novel MS drug therapies. These programs represent incremental improvements over current therapy and their mechanisms of action are similar to current therapy. Tovaxin is the only whole T-cell based vaccination strategy that safely and effectively eliminates the myelin autoreactive T-cells and induces immune tolerance with the potential to prevent the disease or stop disease progression and perhaps to allow the reversal of disease symptoms and progression to severe disability.

In our open-label Phase I/II studies, Tovaxin has shown a reduction in relapses in excess of 90% with virtually no side effects based on only 4 injections annually administered over 3-4 months. Furthermore, approximately 40% of the MS patients treated with Tovaxin demonstrated a reversal of disability as measured by the Kurtzke Expanded Disability Status Scale (EDSS; a method of quantifying disability of MS patients) while the remainder of patients (except for one relapse) experienced no progression of disease. Based on the results of the Phase I/II studies a Phase IIb clinical trial to study Tovaxin therapy in early (clinically isolated syndrome (CIS) and early relapsing remitting (RR)) MS patients has been cleared by the FDA and is scheduled to be initiated the first half of 2006.

**Tovaxin™ for Multiple Sclerosis**

Tovaxin works selectively on the myelin autoreactive T-cells by harnessing the body's natural immune defense system and feedback mechanisms to deplete these T-cells and induce favorable immune regulatory responses which rebalance the immune system. Tovaxin induces immune responses that deplete (Appendix C) and regulate the myelin autoreactive pro-inflammatory T-cells that cause the inflammation and erosion of the myelin sheath resulting in MS. Specifically, Tovaxin is manufactured by taking the MRTCs from the blood, expanding them to a therapeutic dose ex-vivo, and attenuating them with gamma irradiation to prevent DNA replication. These attenuated MRTCs are then injected subcutaneously into the body in large quantities. The body recognizes specific T-cell receptor molecules of these MRTCs as foreign and mounts an immune response reaction against them, not only destroying the injected attenuated MRTCs, but also the circulating, myelin autoreactive T-cells carrying the peptide-specific T-cell receptor molecules. In addition, T-cell activation molecules on the surface of the activated MRTCs used as vaccine induce favorable immune regulatory responses, which promote anti-inflammatory responses. Because the therapy uses an individual's own cells, the only directly identifiable side effect is injection site reaction in a small percentage of the patients. These reactions clear within 24 hours. Clinical studies indicate that following TCV therapy the body does not attack normal T-cells so the patient is not put at peril for side effects and life threatening infections.

Tovaxin consists of a trivalent formulation (MBP, PLP and MOG) of attenuated myelin-peptide reactive T-cells (MRTCs) which targets only the myelin-specific subset of T-cells. Current therapies on the market and under development do not eliminate the MRTCs and are, therefore, only a palliative treatment to reduce the frequency and occurrence of MS symptoms. The current iteration of Tovaxin is a trivalent formulation, which uses six peptides (two each from three myelin proteins) to select the MRTCs. This formulation is very pharmacologically active with only minimal local and systemic side effects. Tovaxin, a whole T-cell vaccine, is a completely new class of drug for MS that works in concert with the body's immune regulatory system to suppress the T-cell-mediated inflammatory activity and deplete the MRTCs.

This same technology platform will have application in other T-cell mediated diseases such as Crohn's disease, psoriasis, rheumatoid arthritis and type 1diabetes.

**Tovaxin™ Intellectual Property**

Tovaxin is protected by a series of patents and patent applications. There is also substantial know-how surrounding the Tovaxin manufacturing process that should be patentable.

The technology was discovered by Dr. Jingwu Zhang of Baylor College of Medicine in Houston. We have an exclusive, worldwide license from the Baylor College of Medicine to develop and commercialize three technology areas for MS, namely T-cell vaccination, peptides, and diagnostics. Under the License Agreement with the Baylor College of Medicine, we have rights to a total of 7 patents (2 U.S. and 5 foreign) and 69 patent applications (6 U.S., 62 foreign, and 1 Patent Cooperation Treaty [PCT]).

The license was granted to us by Baylor in exchange for common stock in Opexa Pharmaceuticals, Inc. (acquired by us in November 2004). The key terms of the agreement are: exclusive, worldwide, and a 2% royalty on net sales of licensed products. The royalty decreases after the aggregate net sales exceed $500 million. There are no other performance or payment terms in the license. We also have a separate consulting agreement with the inventor, Dr. Jingwu Zhang, which grants us the right of first refusal on all future discoveries made by Dr. Zhang.

**Tovaxin™ Manufacturing**

We manufacture our TCV therapy in our own GMP facility. The TCV technology is similar to that of traditional microbial vaccine technology, where the pathogen (or the attenuated derivative) is used to derive the protective antigens necessary to induce protective immune responses. In preparing a TCV therapy, the myelin autoreactive T-cells causing the disease are taken from the blood, specifically identified, and expanded ex vivo by incubating these T-cells with MBP, PLP, and MOG-selected peptides in the presence of antigen-presenting cells and growth factors. Myelin-peptide reactive T-cells are grown to therapeutic levels and cryopreserved. Prior to use, the MRTCs are expanded, formulated, and attenuated (by irradiation) to render them incompetent to replicate but viable for therapy. These attenuated T-cells are administered subcutaneously through a series of injections. A single draw of a 500 ml bag of blood is sufficient to provide a full year’s therapeutic regime of Tovaxin.

We have improved the manufacturing process of Tovaxin. Based on a new process, turnaround (receipt of blood from the patient and return Tovaxin to the patient) is decreased from 12 to 5 weeks and it is anticipated that the material and labor costs of an annual course of therapy will be approximately $4,000. Current therapies are priced at $16,000 to $25,000 annually. The price of newer therapies with better safety and efficacy profiles are anticipated to be priced at $20,000 to $25,000 annually.

We have also validated supply chain logistics improvements that make manufacturing with a regional central facility economical. The viability of blood MRTCs from the time the blood is drawn from the patient to receipt at the processing facility has been established at a minimum of 24 hours, which is sufficient for anywhere in the United States and, likely, Canada. Experiments are underway to determine whether blood MRTCs viability can be extended to at least 72 hours. Stability on the final TCV formulation for injection into patients has already been established at 72 hours. We are actively conducting experiments to improve the stability profile of Tovaxin.

We have developed a supply chain agreement with Lifeblood Biological Services (Memphis, TN) in which Lifeblood will manage blood collection and shipment to our manufacturing facility using the same infrastructure that is used to collect transfusable products. We will manage direct shipment of the TCV to the investigator for administration to patient.

**Clinical Development of Tovaxin ™**

The intent of our clinical development program is to position Tovaxin as first-line therapy for MS. Improvements in efficacy combined with the inherent safety of the treatment make this goal realistic. If successful, Tovaxin would be the first product that specifically targets the "root cause" of MS—the myelin autoreactive T-cells. Compared to other treatments available, this therapy is individualized autologous, easier to tolerate and potentially places the disease into remission. If patients are treated early enough in the disease course, this therapy may prevent progression to more serious forms of MS and possibly allows the reversal of disease. Furthermore, Tovaxin seems to be appropriate to be combined with existing therapies to form a therapeutic cocktail that could be used over the entire life cycle of a patient as other treatments are added or replaced. Remyelination therapies should be easier to develop and implement following the depletion and regulation of the myelin autoreactive T-cells.

The clinical effectiveness of whole T-cell vaccines has evolved from 1990 to 2005 due to formulation improvements. There are three primary myelin proteins (MBP, MOG and PLP) that have been implicated in T-cell pathogenesis of MS. In the early 1990's, Dr. Zhang used monovalent MBP-reactive T cell formulations to treat patients in an open-label clinical trial, which demonstrated an excellent safety profile and a 40% reduction in Annualized Relapse Rate (ARR; a primary outcome measure for licensing MS therapies) (Table 1). Patients treated in Israel with a divalent (MBP, MOG) formulation had an excellent safety profile and reduced ARR by 55% (Table 1). Most recently, patients treated in our Phase I/II open-label studies with trivalent (MBP, MOG, and PLP) formulations had an excellent safety profile and reduced ARR by 93% (Table 1). In the upcoming Phase IIb trial, a new formulation refinement will be implemented that is expected to further improve efficacy.

**Table 1. Comparison of Annual Relapse Rate Reductions with T-Cell Vaccine Formulations**

| T-Cell Vaccine Formulation | Peptide Formulation | Annual Relapse Rate Reduction (%)* | Number Patients |
|---|---|---|---|
| Monovalent | MBP | 40 | 114 |
| Divalent | MBP, MOB | 55 | 20 |
| Trivalent | MBP, MOG, PLP | 93 | 16 |
| Patient-Specific** | Variable based on patient-specific T-cells | TBD*** | 150 |

* All three clinical trials were open-label. ** The Phase IIb trial will select peptide-specific myelin-reactive T-cells to tailor the T-cell vaccine specifically for the individual patient. *** TBD = to be determined. Over the past 10 years 150 patients have been treated with T-cell vaccine.

**Tovaxin™ Phase IIb**

The Phase IIb trial, entitled "A Multicenter, Randomized, Double-Blind, Placebo-Controlled Study of Subcutaneous Tovaxin™ in Subjects with Clinically Isolated Syndrome or Relapsing Remitting Multiple Sclerosis", to be initiated in the first half of 2006, will be a multi-site double-blind, randomized, placebo-controlled 150 (100 treated, 50 placebo) patient trial. The patient population will be those patients with early stage disease where Tovaxin is likely to have its greatest impact. The primary endpoint will be lesion evaluation (the total number of gadolinium-enhancing lesions) via MRI with a secondary endpoint being annual relapse rate. This trial is designed to rigorously demonstrate the safety and efficacy of Tovaxin in the fastest, most economical manner prior to initiating a pivotal Phase III trial approximately the second half of 2007.

A rigorous, blinded study is now required using patient-specific formulation(s) in subjects with early stage disease (where the therapy is likely to work best) to specifically define safety and efficacy parameters prior to entering a Phase III registration study. The Tovaxin vaccine unlike other MS products in development activates regulatory T-cells (Tregs) that (1) induce the depletion of the myelin autoreactive T-cells (anti-idiotypic response of anti-id networks of CD4+ and CD8+ Tregs) that recognize specific MRTCs by their unique TCR CDR3 peptides, and (2) induce immune responses to T-cell activation markers (anti-ergotypic response that recognizes the state of activation of T-cells irrespective of their TCR specificity), and (3) skews the pro-inflammatory Th1 phenotype autoantigen-specific cells that produce IFN-gamma and interleukin [IL]-2 and IL-12 to anti-inflammatory Th2 phenotype autoantigen-specific cells that produce IL-4, IL-10, IL-6 and IL-12. These combined effects of TCV have the potential to allow the body to repair the multiple sclerosis lesions.

**Stem Cell Therapy**

Stem cells are undifferentiated primary cells that have the potential to become any tissues and organs of the body. They hold enormous therapeutic promise for the development of effective treatments and possibly cure various diseases. Hematopoietic stem cells, present in the bone marrow and precursors to all blood cells, are currently the only type of stem cells commonly used for therapy. Doctors have been transferring HSCs in bone marrow transplants for more than 40 years. Advanced techniques for collecting or “harvesting” HSCs are now used to treat leukemia, lymphoma and several inherited blood disorders.

The clinical potential of stem cells has also been demonstrated in the treatment of other human diseases, including diabetes and advanced kidney cancer. However, these new therapies have been offered only to a very limited number of patients using adult stem cells.

New clinical applications for stem cells are currently being tested therapeutically for the treatment of liver diseases, coronary diseases, autoimmune and metabolic disorders (amyloidosis), chronic inflammatory diseases (lupus) and other advanced cancers.

Unfortunately stem cell therapies have technical, ethical and legal hurdles to overcome before they will be able to be used to effect tissue and organ repair in disease states that heretofore have only treated the symptoms. A significant hurdle to most uses of stem cells is that scientists do not yet fully understand the signals that turn specific genes on and off to influence the differentiation of the stem cell. Therefore, scientists will have to be able to precisely control the differentiation of stem cells into the specific cell type to be used in therapy and drug testing Current knowledge of the signals controlling differentiation fall well short of being able to mimic these conditions precisely to consistently have identical differentiated cells for each specified use.

To realize the promise of novel cell-based therapies for such pervasive and debilitating diseases, scientists must be able to easily and reproducibly manipulate stem cells so that they possess the necessary characteristics for successful differentiation, transplantation and engraftment. The following is a list of steps in successful cell-based treatments that scientists will have to learn to precisely control to bring such treatments to the clinic. To be useful for transplant purposes, stem cells must be reproducibly made to:

- Proliferate extensively and generate sufficient quantities of tissue
- Differentiate into the desired cell type(s)
- Survive in the recipient after transplant
- Integrate into the surrounding tissue after transplant
- Function appropriately for the duration of the recipient's life
- Avoid harming the recipient in any way
- Avoid the problem of immune rejection

Although there are many ways to access stem cells, our autologous blood monocyte-derived stem cells offer distinct advantages. The press has been focused on embryonic stem cells because, intrinsically, they have the most potential but recent studies have indicated that adult stem cells maybe better clinically. Embryonic stem cells have three major drawbacks: (1) They are very expensive to access, requiring 150 to 250 embryos to develop one cell line; (2) They are very difficult to control; and (3) They are used by administering them into another individual (allogeneic), thus risking rejection. Some of these drawbacks can be overcome if the cord blood stem cells are frozen at birth; but most people have not done this. Therefore, the only practical way to access one's own stem cells is either through bone marrow, the spinal cord or fat tissue. All of these procedures require expensive, hospital treatment and are fairly traumatic to the patient.

Stem cell transplants have been shown to be successful. Investigators have conducted clinical studies on late stage heart failure patients using stem cells from the patients' bone marrow injected directly into the damaged parts of the heart. This procedure involved threading a catheter through an artery into the left ventricle (the heart's main pumping chamber) and "mapping" specific sites of muscle damage. Stem cells were then injected into these areas. After two months, the treated patients had significantly less heart failure and angina and were better able to pump blood than the untreated patients. The treated group also tended to do better on treadmill tests, and after four months, the treated patients had a sustained improvement in pumping power and the ability to supply blood to the entire body.

**Stem Cell Platform**

Our second exciting opportunity and comprehensive technology platform involves a proprietary process to produce large quantities of monocyte-derived stem cells (MDSC) from blood at a relatively low cost. The importance of these MDSC is that they can be prepared from a patient's monocytes, expanded ex vivo, and then administered to the same patient. Because this is an autologous therapy, there should be no rejection issues and no need for the use of debilitating anti-rejection drugs. Moreover, this method avoids the controversial ethical issues associated with embryonic stem cells. Lastly, since the source of MDSC is the patient's own peripheral blood, it has the advantage of being abundant, easy to obtain even on a repetitive basis, and cost effective.

Adult stem cells are unspecialized cells that have potential to develop into many different cell types in the body. Adult stem cells are believed to be a potential autologous renewable replacement source which might be used to treat various diseases, such as heart disease, type 1 diabetes, stroke, heart attack, burn injuries, spinal cord injuries, Parkinson's and Alzheimer's diseases, and many others. Adult stem cells are in clinical trials globally and are currently being used therapeutically in Thailand where hematopoietic stem cells (HSCs) are being used to treat cardiac disease (severe angina pectoris). In addition, adult stem cells are in clinical trials in the U.S. (mesenchymal stem cells), Brazil, Uruguay and Europe (bone marrow derived stem cells).

Working either alone or in conjunction with strategic partners, we intend to utilize these MDSC from the same patient to effect autologous tissue or organ repair. The initial internal therapeutic targets are late stage heart failure and type 1 diabetes. Other therapeutic targets would be pursued through early-stage licensing or strategic alliances. This program is currently in pre-clinical development. The value proposition is to confirm that we can make large amounts of inexpensive functional stem cells from easily accessible monocytes and then leverage off the advances being made globally to accelerate clinical trials.

Our technology and solution circumvents many of the problems other stem cell technologies have by being able to access large quantities of pluripotent (able to self replicate and be differentiated into all cell types except germ cells) stem cells from a patients own blood. The proprietary system works by first separating the monocytes (a type of white blood cell) from a patient's blood. These monocytes are then reversed in their evolution (de-differentiated) by applying specific growth factors to them to yield a unique MDSC. Blood is rich in monocytes and a 500 ml bag of blood will yield over 100 million stem cells.

**Stem Cell Pre-Clinical and Clinical Development**

We plan to conduct pre-clinical animal studies on these MDSC in 2006 before filing an IND. The plan is to leverage off of extensive international research and clinical trials and develop these cells internally for late stage heart failure and type 1 diabetes. All other potential applications will be out-licensed to generate upfront cash, milestone payments, and royalties.

Type 1 diabetes and heart failure were chosen for internal development because they are large markets (over 1 million patients in the U.S.) and we have a proprietary method of creating islet cells. Stem cell research using more expensive processes has shown encouraging clinical results for the use of cellular therapy in these indications. The objective will be to develop these programs through proof of principle in human and then out-license them to a major company.

**Stem Cell Intellectual Property**

We have an exclusive, worldwide license from the University of Chicago, through its prime contractor relationship with Argonne National Laboratory, to the development of pluripotent stem cells from monocytes isolated from human peripheral blood and their use in treating diseases. The technology was discovered at the Argonne National Laboratory, a U.S. Department of Energy Laboratory. Under the License Agreement with the University of Chicago, we have the rights to a total of 8 patent applications (3 US, 2 PCT and 3 Foreign). We hold a license to produce cells that generate insulin using its core stem cell technology as well as a license for the use of some unique growth factors, which have overcome the challenge of differentiating an adult stem cell to produce insulin. A patent application has been filed for the use of MDSC to develop beta-islet cells for treatment of type 1 diabetes. We have filed a patent application for the use of MDSC to treat heart disease based on technology developed by us since acquiring the license from the University of Chicago. Under the terms of this license, the University is entitled to 4% royalty on sales.

**Stem Cell Strategy**

We will review possible strategic partners for stem cells following the proof-of-principle in animal models and the submission of an IND for diabetes and cardiology. Possible licensing would be for marketing rights in exchange for upfront money, milestone payments, payment of all ongoing clinical costs in licensed territories, and royalties on sales.

*Synergy between T-Cell Vaccination and Stem Cell Therapeutics*

Insulin dependent type 1 diabetes (T1D; insulin dependent diabetes (IDDM)) mellitus is a T cell-mediated inflammatory autoimmune disease of the pancreas, resulting in a lack of insulin. In a person with T1D, beta cells of Langerhans are damaged by autoimmune inflammation, leading to an insufficiency of insulin. In T1D several autoantigen-specific T cell autoreactivities have been identified. These include islet-specific antigens, like insulin, and other nonislet-specific antigens, like glutamic acid decarboxylase (GAD), carboxypeptidase H (CPH), and tyrosine phosphatase (IA-2) among others. Of all the known autoantigens implicated in the disease process, treatment with only insulin, GAD 65, and the heat shock protein 60 (HSP60) peptide p277 can protect nonobese diabetic (NOD) mice from disease. Insulin and GAD 65 are also the most prominent islet autoantigens shown to be recognized by peripheral T cells from T1D patients. These antigens, among others, may form the basis for a PharmaFrontier's TCV therapy for T1D.

Our TCV program has significant synergy with our stem cell program with respect to the treatment modality for T1D. Because autoreactive T-cells are implicated in the destruction of beta cells, a therapeutic strategy that includes T1D TCV followed by ne w stem cell derived beta cell replacement could be an extraordinary therapy or cure for T1D.

**Licenses, Patents and Proprietary Rights**

We believe that proprietary protection of our technologies will be critical to the development of our business. We intend to protect our proprietary intellectual property through patents and other appropriate means. We rely upon trade-secret protection for some confidential and proprietary information and take active measures to control access to that information. We currently have non-disclosure agreements will all of our employees.

Our intellectual property strategy includes developing proprietary technology for the sourcing, scale up, manufacturing, and storage of T cells and pluripotent adult stem cells and the use of these cells in multiple therapeutic applications. This strategy will include expanding on technologies in-licensed to us as well as in-licensing additional technologies through collaborations with universities and biotech companies.

We have licenses to certain patents that relate to our T cell technology and our pluripotent adult stem cell technology.

*T Cell Therapy IP*

We have an exclusive, worldwide license from the Baylor College of Medicine to patent applications claiming rights to the treatment of multiple sclerosis using modified T cells and to the use of the T cell technology as a diagnostic. Under the Baylor license we are obligated to pay a percentage of net sales of products subject to the licensed patents.

We also have an exclusive worldwide license for the intellectual property rights and research results of an autologous T cell vaccine for the treatment of rheumatoid arthritis from the Shanghai Institutes for Biological Sciences (SIBS), Chinese Academy of Sciences of the People's Republic of China. Pursuant to the SIBS license agreement, we made an initial payment to SIBS and we are obligated to pay a percentage of net sales of products subject to the licensed technology. SIBS' initial human clinical trial results indicate that the T cell vaccination induces immune responses that correlate with clinical improvements measured as reductions in ACR50 (American College Rheumatology (ACR) criteria, which measures joint swelling and tenderness and other factors such as pain and disability) and reductions in rheumatoid arthritis laboratory parameters

*Stem Cell Therapy IP*

We have an exclusive, worldwide license from the University of Chicago to a patent application claiming rights to the development of adult pluripotent stem cells from monocytes isolated from adult human peripheral blood. The technology was developed at the Argonne National Laboratory, a U.S. Department of Energy Laboratory operated by the University of Chicago.

Pursuant to the license we have issued a total of 53,307 shares of our common stock to the University of Chicago. We have also agreed to pay the University of Chicago $1.5 million upon the later of October 31, 2006 or our raising $10 million or more in any financing. We are also obligated to issue to the University of Chicago sufficient additional shares of common stock so that the University holds a total of 2.6% of our outstanding stock after our raising $10 million or more in any financing to be issued by October 31, 2006. We have agreed to pay a percentage of royalties on sales of products subject to the licensed patents, as well as sublicense fees. In addition, the University of Chicago license requires us to expend on research and development at least $6,000,000 before February 2008. To date we have spent in excess of $2,000,000 and have met our obligations required by the license. The license also requires us to sell a product or method based on the licensed technology by February 2011.

**Research Collaborations**

We anticipate that from time to time in the future we will enter into collaborative research agreements with other academic and research institutions. We will use such agreements to enhance our research capabilities. Typically, in the industry, such agreements provide the industry partner with rights to license the intellectual property created through the collaboration. We may also enter into collaborative research agreements with other pharmaceutical companies when we believe such collaboration will support the development and commercialization of our technology.

**Commercialization Through Third Part ies**

We anticipate that we will grant sublicenses for certain applications of our technologies. We believe that by sublicensing some of the rights to our technology to pharmaceutical companies and other third parties, we will be able to more efficiently develop some applications of our technologies. We currently do not have any sublicenses.

**Competition**

The development of therapeutic and diagnostic agents for human disease is intensely competitive. Major pharmaceutical companies currently offer a number of pharmaceutical products to treat heart attack, stroke, Parkinson's disease, diabetes, liver diseases, arthritis and other diseases for which our technologies may be applicable. Many pharmaceutical and biotechnology companies are investigating new drugs and therapeutic approaches for the same purposes, which may achieve new efficacy profiles, extend the therapeutic window for such products, alter the prognosis of these diseases, or prevent their onset. We believe that our products, when and if successfully developed, will compete with these products principally on the basis of improved and extended efficacy and safety and their overall economic benefit to the health care system. We expect competition to increase. We believe that our most significant competitors will be fully integrated pharmaceutical companies and more established biotechnology companies. Smaller companies may also be significant competitors, particularly through collaborative arrangements with large pharmaceutical or biotechnology companies. Some of our primary competitors in the current treatment of and in the development of treatments for multiple sclerosis include Biogen, Elan, Serono, Aventis, Teva, and Schering AG. Some of our primary competitors in the development of stem cell therapies include Aastrom Biosciences, Geron, Gamida-Cell Ltd, Stem Cells Inc., Cellerant Therapeutics, Viacell, and Osiris Therapeutics. Many of these competitors have significant products in development that could be competitive with our potential products.

**Sales and Marketing**

We intend to develop a sales force to market our multiple sclerosis cell therapy and diagnostic products in the U.S. Given the concentration of multiple sclerosis among a relatively small number of specialized neurologists, we believe that a modest size sales force would be sufficient to market the multiple sclerosis products. Our plan is to start building the sales force with the launch of the multiple sclerosis diagnostic products.

We expect to partner with large biotech and pharmaceutical companies for the marketing and sales of our stem cell therapy products.

**Description of Property**

Our principal executive offices are located at 2635 N. Crescent Ridge Drive, The Woodlands, Texas, and our telephone number is (281) 272-9331. This 10,200 sq. ft. facility is located on 3 acres. This location provides space for research and development laboratories; a specialized flow cytometry and microscopy lab; support of clinical trials with GMP manufacturing suites; quality systems management with a quality control laboratory, regulatory affairs offices, quality assurance space; as well as administrative support space. There is 2500 sq. ft. of space in the facility still available for future build-out. The facility including the property is leased for a term of ten years ending September 30, 2015, with two options for an additional five years each at the then prevailing market rate. We believe that our lease is at a competitive or market rate.

**Government Regulation**

Our research and development activities and the future manufacturing and marketing of our potential products are, and will be, subject to regulation for safety and efficacy by a number of governmental authorities in the United States and other countries.

In the United States, pharmaceuticals, biologicals and medical devices are subject to Food and Drug Administration or FDA, regulation. The Federal Food, Drug and Cosmetic Act, as amended, and the Public Health Service Act, as amended, the regulations promulgated thereunder, and other Federal and state statutes and regulations govern, among other things, the testing, manufacture, safety, efficacy, labeling, storage, export, record keeping, approval, marketing, advertising and promotion of our potential products. Product development and approval within this regulatory framework takes a number of years and involves significant uncertainty combined with the expenditure of substantial resources.

*FDA Approval*

We will need to obtain FDA approval of any therapeutic product we plan to market and sell. The steps required before our potential products may be marketed in the United States include:

*1.* *Preclinical Laboratory and Animal Tests* . Preclinical tests include laboratory evaluation of the product and animal studies in specific disease models to assess the potential safety and efficacy of the product and our formulation as well as the quality and consistency of the manufacturing process.

*2.* *Submission to the FDA of an Application for an Investigational New Drug Exemption, or IND, Which Must Become Effective Before U.S. Human Clinical Trials May Commence* . The results of the preclinical tests are submitted to the FDA as part of an IND, and the IND becomes effective 30 days following its receipt by the FDA, as long as there are no questions, requests for delay or objections from the FDA.

*3.* *Adequate and Well-Controlled Human Clinical Trials to Establish the Safety and Efficacy of the Product* . Clinical trials involve the evaluation of the product in healthy volunteers or, as may be the case with our potential products, in a small number of patients under the supervision of a qualified physician. Clinical trials are conducted in accordance with protocols that detail the objectives of the study, the parameters to be used to monitor safety and the efficacy criteria to be evaluated. Any product administered in a U.S. clinical trial must be manufactured in accordance with clinical good manufacturing practices, or GMP, determined by FDA. Each protocol is submitted to the FDA as part of the IND.

The protocol for each clinical study must be approved by an independent Institutional Review Board, or IRB, at the institution at which the study is conducted and the informed consent of all participants must be obtained. The IRB will consider, among other things, the existing information on the product, ethical factors, the safety of human subjects, the potential benefits of the therapy and the possible liability of the institution.

Clinical development is traditionally conducted in three sequential phases, which may overlap:

- In Phase I, products are typically introduced into healthy human subjects or into selected patient populations to test for adverse reactions, dosage tolerance, absorption and distribution, metabolism, excretion and clinical pharmacology.

- Phase II involves studies in a limited patient population to (i) determine the efficacy of the product for specific targeted indications and populations, (ii) determine optimal dosage and dosage tolerance and (iii) identify possible adverse effects and safety risks. When a dose is chosen and a candidate product is found to be effective and to have an acceptable safety profile in Phase II evaluations, Phase III trials begin.

- Phase III trials are undertaken to conclusively demonstrate clinical efficacy and to test further for safety within an expanded patient population, generally at multiple study sites.

The FDA continually reviews the clinical trial plans and results and may suggest changes or may require discontinuance of the trials at any time if significant safety issues arise.

1. Submission to the FDA of Marketing Authorization Applications. The results of the preclinical studies and clinical studies are submitted to the FDA in the form of marketing approval authorization applications.

2. FDA Approval of the Application(S) Prior to Any Commercial Sale or Shipment of the Drug Biologic Product Manufacturing Establishments Located in Certain States Also May be Subject to Separate Regulatory and Licensing Requirement. The testing and approval process will require substantial time, effort and expense. The time for approval is affected by a number of factors, including relative risks and benefits demonstrated in clinical trials, the availability of alternative treatments and the severity of the disease. Additional animal studies or clinical trials may be requested during the FDA review period, which might add to that time.

After FDA approval for the product, the manufacturing and the initial indications, further clinical trials may be required to gain approval for the use of the product for additional indications. The FDA may also require unusual or restrictive post-marketing testing and surveillance to monitor for adverse effects, which could involve significant expense, or may elect to grant only conditional approvals.

*FDA Manufacturing Requirements*

Among the conditions for product licensure is the requirement that the prospective manufacturer’s quality control and manufacturing procedures conform to the FDA’s current good manufacturing practices, or GMP, requirement. Even after product licensure approval, the manufacturer must comply with GMP on a continuing basis, and what constitutes GMP may change as the state of the art of manufacturing changes. Domestic manufacturing facilities are subject to regular FDA inspections for GMP compliance, which are normally held at least every two years. Foreign manufacturing facilities are subject to periodic FDA inspections or inspections by the foreign regulatory authorities with reciprocal inspection agreements with the FDA. Domestic manufacturing facilities may also be subject to inspection by foreign authorities.

*Fast Track, Priority Review and Accelerated Approval*

Fast Track refers to a process for interacting with the FDA during drug development. Priority Review applies to the time frame the FDA targets for reviewing a completed application. Accelerated Approval (Subpart H) applies to the design and content of the studies used to support a marketing claim.

Fast Track is a formal mechanism to interact with the FDA using approaches that are available to all applicants for marketing claims. The Fact Track mechanism is described in the Food and Drug Administration Modernization Act of 1997. The benefits of Fast Track include scheduled meetings to seek FDA input into development plans, the option of submitting a New Drug Application (NDA) in sections rather than all components simultaneously, and the option of requesting evaluation of studies using surrogate endpoints as discussed below. The Fast Track designation is intended for the combination of a product and a claim that addresses an unmet medical need, but is independent of Priority Review and Accelerated Approval. An applicant may use any or all of the components of Fast Track without the formal designation. Fast Track designation does not necessarily lead to a Priority Review or Accelerated Approval.

**Priority Review** is a designation for an application after it has been submitted to the FDA for review for approval of a marketing claim. Under the Food and Drug Administration Modernization Act of 1997, reviews for New Drug Applications, or NDAs, are designated as either Standard or Priority. A Standard designation sets the target date for completing all aspects of a review and the FDA taking an action on the application (approve or not approve) at 10 months after the date it was filed. A Priority designation sets the target date for the FDA action at 6 months. A Priority designation is intended for those products that address unmet medical needs.

**Accelerated Approval or Subpart H Approval** is a program described in the NDA regulations that is intended to make promising products for life threatening diseases available on the market on the basis of preliminary evidence prior to formal demonstration of patient benefit. The studies are designed to measure and the FDA evaluation is performed on the basis of a surrogate marker (a measurement intended to substitute for the clinical measurement of interest, usually prolongation of survival) that is considered likely to predict patient benefit. The approval that is granted may be considered a provisional approval with a written commitment to complete clinical studies that formally demonstrate patient benefit. The Federal Register published a discussion of Accelerated Approval with comments. Absent a formal demonstration of patient benefit, a risk benefit assessment cannot be made. Accelerated Approval designation does not necessarily lead to a Priority Review.

*Proposed FDA Regulations*

The FDA is requiring human cell, tissue, and cellular and tissue-based product (HCT/P) establishments to follow current good tissue practice, which governs the methods used in, and the facilities and controls used for, the manufacture of HCT/Ps; recordkeeping; and the establishment of a quality program. The agency is also issuing new regulations pertaining to labeling, reporting, inspections, and enforcement that will apply to manufacturers of those HCT/Ps regulated solely under the authority of the Public Health Service Act, and not as drugs, devices, and/or biological products.

As part of this approach, the FDA has published final rules for registration of establishments that engage in the recovery, screening, testing, processing, storage or distribution of human cells, tissues, and cellular and tissue-based products, and for the listing of such products. These products specifically include stem cells that are progenitors of blood cells; however, the FDA makes no explicit statement regarding the inclusion of other types of stem cells. In addition, the FDA has published proposed rules for making suitability determinations for donors of cells and tissue and for current good tissue practice for manufacturers using them. We cannot now determine the full effects of this regulatory initiative, including precisely how it may affect the clarity of regulatory obligations and the extent of regulatory burdens associated with pluripotent adult stem cell research (for stem cells that give rise to various tissue types, including blood), and the manufacture and marketing of adult stem cell products.

*Other Regulations*

In addition to safety regulations enforced by the FDA, we are also subject to regulations under the Occupational Safety and Health Act, the Environmental Protection Act, the Toxic Substances Control Act and other present and potential future foreign, Federal, state and local regulations.

Outside the United States, we will be subject to regulations that govern the import of drug products from the United States or other manufacturing sites and foreign regulatory requirements governing human clinical trials and marketing approval for our products. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursements vary widely from country to country. In particular, the European Union is revising its regulatory approach to high tech products, and representatives from the United States, Japan and the European Union are in the process of harmonizing and making more uniform the regulations for the registration of pharmaceutical products in these three markets.

**Employees**

As of June 19, 2006, we had 32 full time employees. We believe that our relations with our employees are good. None of our employees is represented by a union or covered by a collective bargaining agreement.

**Legal Proceedings**

We are not currently a party to any legal proceedings.

## MANAGEMENT

The following table sets forth certain information regarding our current directors and executive officers.

Our executive officers are elected by the board of directors and serve at the discretion of the board. All of the current directors serve until the next annual stockholders' meeting or until their successors have been duly elected and qualified.

| Name | Age | Position |
|---|---|---|
| David B. McWilliams | 63 | President and Chief Executive Officer, Director |
| C. W. Rouse | 58 | Chief Financial Officer [(1)] |
| Lynne Hohlfeld | 46 | Chief Financial Officer [(1)] |
| Scott B. Seaman | 50 | Director |
| Gregory H. Bailey | 50 | Director |
| David Hung | 48 | Director |
| Michael Richman | 45 | Director |

[(1)] Mr. Rouse will retire on June 30, 2006. Ms. Hohlfeld will assume the position on that date.

Biographical information for our directors and executive officers is set forth below:

**David B. McWilliams** was appointed President and Director in August 2004. From December 2004 until August 2004, Mr. McWilliams was a private investor. From June 2003 to December 2003, Mr. McWilliams served as President and CEO of Bacterial Barcodes, Inc., a molecular diagnostics company. From May 2002 to June 2003, Mr. McWilliams served as CEO of Signase, Inc., a cancer therapy company. Mr. McWilliams served as CEO of Encysive Pharmaceuticals Inc., a cardiovascular therapeutics company from June 1992 to March 2002. Prior to June 1992, Mr. McWilliams served as CEO of Zonagen Inc., a human reproductive products company. Prior to that time, Mr. McWilliams was a senior executive with Abbott Laboratories and a management consultant with McKinsey & Co. He currently serves as a director of Novelos Therapeutics, Inc. and Fairway Medical Systems, Inc. He also serves on the boards of the Texas Healthcare and Bioscience Institute and the Houston Technology Center. He received an MBA in finance from the University of Chicago, and a B.A. in chemistry, Phi Beta Kappa, from Washington and Jefferson College.

**C. William Rouse** has served as our Chief Financial Officer since May 2004. Prior to May 2004, Mr. Rouse was Managing Director of Rouse Associates from April 1999 until May 2004. From January 1995 to April 1999 he was Chief Marketing Officer for Futorian Inc. and from December 1990 to January 1995 he was a Division General Manager for Masco Corporation. Prior to 1990 Mr. Rouse was President of BEI, Inc. Mr. Rouse has led several startups and turnarounds and founded several successful companies.

**Lynne Hohlfeld** will assume the position of Chief Financial Officer on June 30, 2006. She has served as Vice President, Finance since April 2006. From September 2004 until April 2006, she was vice president and chief financial officer of Denota Ventures. From August 2000 until March 2004 she was senior vice president, chief financial officer of Bacterial Barcodes, Inc., a Houston-based molecular diagnostics company spun out of the Baylor College of Medicine there. She was also senior vice president and chief financial officer of Spectral Genomics of Houston upon its merger with Bacterial Barcodes in March 2004. Ms. Hohlfeld was also employed by LifeCell Corporation from 1997 to 1999, serving as controller. Ms. Hohlfeld's career includes positions at Dixie Chemical Company, Price Waterhouse Coopers, McKenna & Company, and Arthur Andersen. Ms. Hohlfeld received a B.B.A. in accounting from the University of Wisconsin - Madison and is a certified public accountant.

**Scott B. Seaman** has served as a Director of since April, 2006. Mr. Seaman currently serves as the executive director and treasurer of the Albert and Margaret Alkek Foundation of Houston, Texas, a private foundation primarily supporting institutions in the Texas Medical Center in Houston, Texas. Since January 1996 to present, Mr. Seaman has served as the chief financial officer of Chaswil Ltd., an investment management company. Since September 1986, Mr. Seaman has served as secretary and treasurer of M & A Properties Inc., a ranching and real estate concern. Since January 2003, Mr. Seaman has served as chairman and, since July 2004, president of ICT Management Inc., the general partner of Impact Composite Technology Ltd., a composite industry supplier. Since May 2004, Mr. Seaman has served as a Member of the Investment Committee of Global Hedged Equity Fund LP, a hedge fund. Mr. Seaman received a bachelor's degree in business administration from Bowling Green State University.

**Dr. Gregory H. Bailey** has served as a Director of since April, 2006. Since May 2004, Dr. Bailey has served as a managing director of MDB Capital Group LLC. From June 2002 to June 2003, Dr. Bailey served as a managing director of Gilford Securities, Inc and from 1998 to June 2002, Dr. Bailey served as a managing director of Knightsford Bank Corp. Since May 2005, Dr. Bailey has served as director of Medivation, Inc., a public company focused on acquiring biomedical technologies. Dr. Bailey holds a M.D. from the University of Western Ontario.

**Dr. David Hung** has served as a Director since May 2006. Dr. Hung has served as the president, chief executive officer and as a director of Medivation, Inc. since December 17, 2004. Dr. Hung also has served as the President and Chief Executive Officer, and member of the board of directors, of Medivation, Inc.'s subsidiary, Medivation Neurology, Inc. since its inception in September 2003. From 1998 until 2001, Dr. Hung was employed by ProDuct Health, Inc., a privately held medical device company, as Chief Scientific Officer (1998-1999) and as President and Chief Executive Officer (1999-2001). From December 2001 to January 2003, Dr. Hung served as a consultant to Cytyc Health Corporation. From July 1999 to November 2001, Dr. Hung served as president and chief executive officer of ProDuct Health, Inc. Dr. Hung received his M.D. from the University of California at San Francisco, and his M.A. and A.B. in biology and organic chemistry from Harvard College.

**Michael S. Richman** has served as a Director since June 2006. Mr. Richman is Executive Vice President and Chief Operating Officer of MacroGenics, Inc. He joined MacroGenics, Inc in 2002 with over twenty years experience in corporate business development within the biotechnology industry. Before joining MacroGenics Inc, he was senior vice president, corporate development administration at MedImmune, Inc. from 1996 to 2002. From 1985 to 1996, Mr. Richman served in various senior positions at Chiron Corporation, a public biotechnology company, with his last position being director of corporate business development. His previous positions include manager of business development from 1990 to 1992 and manager of intellectual property from 1988 to 1990. Mr. Richman received his MSBA degree from San Francisco State University with a concentration in International Business, and a B.S. degree form the University of California at Davis.

**Committees of the Board of Directors**

We currently have an audit committee, a compensation committee, and a nominating and corporate governance committee.

*Audit Committee* . The audit committee of the Board currently consists of Dr. Hung, Mr. Richman and Mr. Seaman, all of which are independent, non-employee directors. The audit committee selects, on behalf of our board of directors, an independent public accounting firm to be engaged to audit our financial statements, discuss with the independent auditors their independence, review and discuss the audited financial statements with the independent auditors and management and recommend to our board of directors whether the audited financials should be included in our Annual Reports to be filed with the SEC. The audit committee operates pursuant to a written charter, which was adopted in February 2005. During the last fiscal year, the audit committee held 4 meetings and the then members of the Audit Committee attended that meeting.

All of the members of the audit committee are non-employee directors who: (1) met the criteria for independence set forth in Rule 10A-3(b)(1) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"); (2) did not participate in the preparation of our financial statements or the financial statements of Opexa Pharmaceuticals, Inc.; and (3) are able to read and understand fundamental financial statements, including a balance sheet, income statement and cash flow statement. The Board has determined that Mr. Seaman qualifies as an "audit committee financial expert" as defined by Item 401(e) of Regulation S-B of the Exchange Act.

*Compensation Committee* . The compensation committee of the board consists of Dr. Hung, Mr. Richman and Mr. Seaman, who are independent directors, as defined in Rule 10A-3 of the Exchange Act. The compensation Committee reviews and approves (1) the annual salaries and other compensation of our executive officers and (2) individual stock and stock option grants. The compensation Committee also provides assistance and recommendations with respect to our compensation policies and practices and assists with the administration of our compensation plans. The compensation committee held 4 meetings in the fiscal year ended December 31, 2005, and the then members of the compensation committee attended each meeting.

In addition, the Board has adopted a written charter for the compensation committee, adopted in August 2004, which is available on the Company's website at www.opexatherapeutics.com.

*Nominating and Corporate Governance Committee* . The nominating and corporate governance committee of the board currently consists of Dr. Hung, Mr. Richman and Mr. Seaman, each of whom are found by the board of directors to be an "independent director" pursuant to the applicable rules and regulations promulgated by the SEC. The nominating and corporate governance committee assists our board of directors in fulfilling its responsibilities by: identifying and approving individuals qualified to serve as members of our board of directors, selecting director nominees for our annual meetings of shareholders, evaluating the performance of our board of directors, and developing and recommending to our board of directors corporate governance guidelines and oversight with respect to corporate governance and ethical conduct. This committee operates pursuant to a written charter adopted in February 2005, which is available on the Company's website at http://www.opexatherapeutics.com under the heading "Investor Info". During the fiscal year ended December 31, 2005, the nominating and corporate governance committee held 4 meetings, and the then members of the compensation committee attended each meeting.

*Compensation Committee Interlocks And Insider Participation* . Our compensation committee is comprised of Dr. Hung, Mr. Richman and Mr. Seaman. None of the committee members has ever been an employee of Opexa Therapeutics, Inc. None of our executive officers serve as a member of the board of directors or compensation committee of any entity that has any executive officer serving as a member of our Board of Directors or compensation committee.

**Compensation of Directors**

Mr. McWilliams who is a director and an officer does not receive any compensation for his services as a member of our board of directors. As director's compensation for the period ending April 13, 2007, the Company approved the issuance of a ten year option to purchase 35,000 shares of common stock to Dr. Bailey, Mr. Seaman and Dr. Hung at an exercise price of $5.20 per share. On June 16, 2006 the Company approved the issuance of a ten year option to purchase 35,000 shares of common stock to Mr. Richman at an exercise price of $9.80. Each of these options vest 50% on the date of grant, 25% on the first anniversary and the remaining 25% on the second anniversary with ninety day acceleration upon the director's termination. We reimburse our directors for travel and lodging expenses in connection with their attendance at board and committee meetings.

In April 2006, the board approved the accelerated vesting of the options held by Messrs. Boveroux, Wesner, Kamin and Frison and extended the term to exercise for three years. In addition, subject to the shareholders' approval of an amendment to the Plan increasing the number of shares of common stock authorized for issuance under the Plan, as compensation for the directors' prior efforts, the board approved the issuance of three year options to purchase 2,000 shares to each of Messrs. Boveroux, Wesner and Kamin and 2,500 shares to Mr. Frison. These options are exercisable at $5.20 per share and vest in one year.

## EXECUTIVE COMPENSATION

### Summary Compensation Table

The following tables set forth certain information regarding our CEO and each of our most highly-compensated officers whose total annual salary and bonus for the fiscal years ending December 31, 2005, 2004 and 2003 exceeded $100,000.

| | | Annual Compensation | | Long Term Compensation Awards | |
|---|---|---|---|---|---|
| Name and Principal Position | Year | Salary ($) | Bonus ($) | Securities Underlying Options (#) | All Other Compensation ($) |
| David B. McWilliams (1) | 2005 | 250,000 | - | 5,000 | - |
| | 2004 | 83,000 | - | 37,000 (2) | - |
| | 2003 | - | - | - | - |
| C. William Rouse (3) | 2005 | 180,000 | - | 5,000 | - |
| | 2004 | 77,500 | - | 10,000 (2) | - |
| | 2003 | - | - | - | - |
| Warren Lau (4) | 2005 | - | - | - | - |
| | 2004 | 98,000 | - | - | - |
| | 2003 | - | - | - | - |
| Jason Otteson (5) | 2005 | - | - | - | - |
| | 2004 | 42,000 | - | - | - |
| | 2003 | 102,000 | - | 2,400 | - |

(1) Served as chief executive officer since August 2004.

(2) See “Executive Employment Contracts” for a discussion of the option.

(3) Served as chief financial officer since May 2004.

(4) Served as chief executive officer from June 2004 through August 2004.

(5) Served as chief executive officer until June 2004.

### Option Grants in Last Fiscal Year

(Individual Grants)

| Name | Number of Securities Options Granted | % of Total Options Granted to Fiscal Year | Exercise/Base Price ($/Share) | Expiration Date |
|---|---|---|---|---|
| David B. McWilliams | 5,000 | 2% | 30.00 | 01/21/2010 |
| C. William Rouse | 5,000 | 2% | 30.00 | 01/21/2010 |
| Warren Lau | - | - | - | - |
| Jason Otteson | - | - | - | - |

**Options Exercises and Fiscal 2005 Year End Values**

| Name | Number of Shares Underlying Unexercised Options at December 31 2005 | | Value of Unexercised In-the-Money Options at December 31 2005 (1) | |
|---|---|---|---|---|
| | Exercisable | Unexercisable | Exercisable | Unexercisable |
| David B. McWilliams | 24,334 | 17,667 | $ -0- (1) | $ -0- (1) |
| C. William Rouse | 10,000 | 5,001 | -0- (1) | -0- (1) |
| Warren Lau | - | - | - | - |
| Jason Otteson | - | - | - | - |

(1) The value of "in-the-money" stock options represents the difference between the $30.00 exercise price of such options and the fair market value of $6.00 per share of common stock as of December 31, 2005, the closing price of the common stock reported on the OTC Bulletin Board for December 30, 2005.

No options were exercised during the fiscal year ended December 31, 2005. No stock appreciation rights were outstanding at the end of the 2005 fiscal year.

**Executive Employment Contracts**

David B. McWilliams has an existing employment agreement with us that he entered into effective August, 2004. Mr. McWilliams current agreement for the position of chief executive officer is at an annual salary of $250,000 and may be terminated by us or him at any time for any or no reason. Mr. McWilliams has the right to purchase 37,000 shares of our common stock exercisable at a price per share of $30.00, which all vested in April 2006. In January 2005, Mr. McWilliams was granted an option to purchase 5,000 shares of common stock at a purchase price of $30.00 per share, of which 3,334 shares vested in January 2006. In May 2006, subject to the shareholders' approval of the proposed amendment to the Plan increasing the number of shares of common stock authorized for issuance under the Plan, Mr. McWilliams was granted a ten year option for purchase 120,000 shares of common stock at $5.00 per share vesting in three years with ninety day acceleration upon Mr. McWilliams termination.

C. William "Bill" Rouse entered into an employment agreement, expiring June 2006, providing for an annual salary of $180,000. Mr. Rouse has the right to purchase 10,000 shares of our common stock exercisable at a price per share of $30.00. This option will vest in three parts: 3,333 on April 29, 2005, 3,333 on April 29, 2006 and finally 3,334 on April 29, 2007. Any unexercised options will expire on April 29, 2009. In January 2005, Mr. Rouse was granted an option to purchase 5,000 shares of common stock at a purchase price of $30.00 per share, of which 3,333 shares vested in January 2006. In May 2006, subject to the shareholders' approval of the proposed amendment to the Plan increasing the number of shares of common stock authorized for issuance under the Plan, Mr. Rouse was granted two options: (i) a five year option exercisable at $5.00 per share to purchase 65,000 shares of common stock, 1/3 vesting immediately and the balance vesting one year from the grant date, with no acceleration or termination provisions resulting from Mr. Rouse's termination of employment with the Company; and (ii) a five year option exercisable at $5.00 per share to purchase 10,000 shares of common stock to become vested if our registration statement to be filed pursuant to the April 2006 private offering, is filed with the SEC and deemed effective by the SEC without triggering any payment obligations as provided for in the April 2006 private offering, with no acceleration or termination provisions from Mr. Rouse's termination of employment with the Company. Mr. Rouse tendered his retirement effective June 30, 2006.

## SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth, as of June 19, 2006, the number and percentage of outstanding shares of our common stock owned by: (a) each person who is known by us to be the beneficial owner of more than 5% of our outstanding shares of common stock; (b) each of our directors; (c) the named executive officers as defined in Item 402 of Regulation S-B; and (d) all current directors and executive officers, as a group. As of June 19, 2006, there were 6,696,704 shares of common stock issued and outstanding.

Beneficial ownership has been determined in accordance with Rule 13d-3 under the Exchange Act. Under this rule, certain shares may be deemed to be beneficially owned by more than one person (if, for example, persons share the power to vote or the power to dispose of the shares). In addition, shares are deemed to be beneficially owned by a person if the person has the right to acquire shares (for example, upon exercise of an option or warrant) within 60 days of the date as of which the information is provided. In computing the percentage ownership of any person, the amount of shares is deemed to include the amount of shares beneficially owned by such person by reason of such acquisition rights. As a result, the percentage of outstanding shares of any person as shown in the following table does not necessarily reflect the person's actual voting power at any particular date.

To our knowledge, except as indicated in the footnotes to this table and pursuant to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them.

| **Name and Address of Beneficial Owner** (1) | **Number of Shares Owned** | **Percentage of Class** |
|---|---|---|
| Beneficial Owners of more than 5%: | | |
| SF Capital Partners Ltd. (2) | 1,000,000 (3) | 14.93% |
| Magnetar Capital Master Fund, Ltd (4) | 672,500 (5) | 9.99% |
| Austin W. Marxe and David M. Greenhouse (6) | 1,500,000 (6) | 20.84% |
| Albert and Margaret Alkek Foundation (7) | 685,973 (8) | 9.99% |
| Alkek & Williams Ventures Ltd. (9) | 416,798 (10) | 6.08% |
| DLD Family Investments, LLC (11) | 370,778 (12) | 5.43% |
| Officers and Directors: | | |
| Scott B. Seaman (9) | 468,581 (13) | 6.81% |
| David B. McWilliams | 57,715 (14) | * |
| C. William Rouse | 49,996 (15) | * |
| Gregory H. Bailey | 71,428 (16) | 1.06% |
| David Hung | 17,500 (17) | * |
| Michael Richman | 17,500 (18) | * |
| All directors and executive officers as a group (6 persons) | 682,720 (19) | 9.66% |

* Less than 1%

(1) Unless otherwise indicated, the mailing address of the beneficial owner is c/o Opexa Therapeutics, Inc., 2635 N. Crescent Ridge Drive, The Woodlands, Texas 77381.

(2) Michael A. Roth and Brian J. Stark exercise joint voting and dispositive power over all of the shares of common stock beneficially owned by SF Capital Partners Ltd., but Messrs Roth and Stark disclaim beneficial ownership of such shares. The information in this footnote is primarily based on a Schedule 13G filed with the SEC on April 17, 2006 and other information provided to us. The mailing address of SF Capital Partners Ltd. is c/o Stark Offshore Management, LLC, 3600 South Lake Drive, St. Francis, WI 53235.

(3) Excludes 500,000 shares of Company common stock underlying the Warrant ("Warrant") that SF Capital Partners Ltd. is contractually prohibited from exercising to the extent that it would beneficially own in excess of 9.999% of the total number of issued and outstanding shares of common stock after such exercise. "Warrant" refers, in each case to the Warrants dated April 11, 2006.

(4) Magnetar Financial LLC is the investment advisor of Magnetar Capital Master Fund, Ltd. ("Magnetar") and consequently has voting control and investment discretion over securities held by Magnetar. Magnetar Financial LLC disclaims beneficial ownership of the shares held by Magnetar. Alec Litowitz has voting control over Supernova Management LLC, which is the general partner of Magnetar Capital Partners LP, the sole managing member of Magnetar Financial LLC. As a result, Mr. Litowitz may be considered the beneficial owner of any shares deemed to be beneficially owned by Magnetar Financial LLC. Mr. Litowitz disclaims beneficial ownership of these shares. The mailing address of the beneficial owner is 1603 Orrington Ave., 13th Floor, Evanston, Illinois 60201.

(5) Excludes 287,500 shares of Company common stock underlying a Warrant that Magnetar is contractually prohibited from exercising to the extent that it would beneficially own in excess of 9.999% of the total number of issued and outstanding shares of common stock after such exercise.

(6) Consisting of: (i) 331,000 shares of common stock and 165,500 shares of common stock issuable upon the exercise of a Warrant held by Special Situations Fund III QP, L.P., (ii) 28,400 shares of common stock and 14,200 shares of common stock issuable upon the exercise of a Warrant held by Special Situations Fund III, L.P., (iii) 90,600 shares of common stock and 45,300 shares of common stock issuable upon the exercise of a Warrant held by Special Situations Cayman Fund, L.P., (iv) 400,000 shares of common stock and 200,000 shares of common stock issuable upon the exercise of a Warrant held by Special Situations Private Equity Fund, L.P., and (v) 150,000 shares of common stock and 75,000 shares of common stock issuable upon the exercise of a Warrant held by Special Situations Life Sciences Fund, L.P. MGP Advisors Limited ("MGP") is the general partner of Special Situations Fund III, QP, L.P. and Special Situations Fund III, L.P. AWM Investment Company, Inc. ("AWM") is the general partner of MGP and the general partner of and investment adviser to the Special Situations Cayman Fund, L.P. MG Advisers, L.L.C. ("MG") is the general partner of and investment adviser to the Special Situations Private Equity Fund, L.P. LS Advisers, LLC ("LS") is the general partner and investment adviser to the Special Situations Life Sciences Fund, L.P. Austin W. Marxe and David M. Greenhouse are the principal owners of MGP, AWM, MG and LS. Through their control of MGP, AWM, MG and LS, Messrs. Marxe and Greenhouse share voting and investment control over the portfolio securities of each of the funds listed above. The information in this footnote is primarily based on a Schedule 13D filed with the SEC on April 24, 2006 and other information provided to us. The mailing address of Messrs. Marxe and Greenhouse is 527 Madison Avenue, Suite 2600, New York, New York 10022.

(7) This information is based on the Schedule 13D filed with the SEC on April 24, 2006, as amended, by Albert and Margaret Alkek Foundation (the "Foundation"), Alkek & Williams Ventures, Ltd. ("Ventures"), Scott Seaman, DLD Family Investments, LLC, and the other reporting persons named therein (the" Foundation 13D"). The Foundation acts through an investment committee of its board of directors, which includes Mr. Daniel Arnold, Mr. Joe Bailey, Mr. Scott Seaman and Ms. Randa Duncan Williams. Mr. Seaman is the executive director of the Foundation and chairman of the investment committee. The investment committee has sole voting and investment power over all of the shares of common stock beneficially owned by the Foundation. However, pursuant to the Foundation 13D, neither the executive director nor any member of the investment committee may act individually to vote or sell shares of common stock held by the Foundation; therefore, the Foundation has concluded that no individual committee member is deemed to beneficially own, within the meaning of Rule 13d-3 of the Exchange Act, any shares of common stock held by the Foundation solely by virtue of the fact that he or she is a member of the investment committee. Additionally, pursuant to the Foundation 13D, the Foundation has concluded that because Mr. Seaman, in his capacity as executive director or chairman of the investment committee, cannot act in such capacity to vote or sell shares of common stock held by the Foundation without the approval of the investment committee, he is not deemed to beneficially own, within the meaning of Rule 13d-3 of the Exchange Act, any shares of common stock held by the Foundation by virtue of his position as executive director or chairman of the investment committee. The mailing address of the beneficial owner is 1221 McKinney #4525, Houston, Texas 77010.

(8) Consisting of: (i) 12,084 shares of common stock underlying Series B Warrants exercisable at $20.00 per share; (ii) 22,223 shares of common stock underlying Series C Warrants exercisable at $30.00 per share; and (iii) 135,000 shares of common stock underlying a Warrant. Excludes 115,000 shares of Company common stock underlying a Warrant that the Foundation is contractually prohibited from exercising to the extent that it would beneficially own in excess of 9.999% of the total number of issued and outstanding shares of common stock after such exercise. Pursuant to the Foundation 13D, the Foundation and other reporting persons named therein may be deemed to constitute a group for purposes of Section 13(d) or Section 13(g) of the Exchange Act. However, the Foundation, Ventures, Chaswil, Ltd., and Mr. Seaman expressly disclaim (i) that, for purposes of Section 13(d) or Section 13(g) of the Exchange Act, they are a member of a group with respect to securities of the Company held by DLD Family Investments, LLC, Mr. Arnold, Mr. Bailey or Ms. Williams and (ii) that they have agreed to act together with DLD Family Investments, LLC, Mr. Arnold, Mr. Bailey or Ms. Williams as a group other than as described in the Foundation 13D. Therefore, this does not include the following securities: ( i) 233,334 shares of common stock held by DLD Family Investments, LLC; (ii) 9,667 shares of common stock underlying Series B warrants exercisable at $20.00 per share held by DLD Family Investments, LLC; (iii) 17,778 shares of common stock underlying Series C warrants exercisable at $30.00 per share held by DLD Family Investments, LLC; (iv) 110,000 shares of common stock underlying a Warrant held by DLD Family Investments, LLC; (v) 26,667 shares of common stock held by Mr. Arnold; (vi) 4,834 shares of common stock underlying Series B warrants exercisable at $20.00 per share held by Mr. Arnold; (vii) 8,889 shares of common stock underlying Series C warrants exercisable at $30.00 per share held by Mr. Arnold; (viii) 10,000 shares of common stock underlying a Warrant held by Mr. Arnold; (ix) 10,000 shares of common stock held by Mr. Bailey; (x) 5,000 shares of common stock underlying a Warrant held by Mr. Bailey; (xi) 263,667 shares of common stock held by Ventures; (xii) 9,909 shares of common stock underlying Series B warrants exercisable at $20.00 per share held by Ventures; (xiii) 18,223 shares of common stock underlying Series C warrants exercisable at $30.00 per share held by Ventures; (xiv) 125,000 shares of common stock underlying a Warrant held by Ventures; (xv) 20,050 Series of common stock held by Mr. Seaman; (xvi) 2,900 shares of common stock underlying series B warrants exercisable at $20.00 per share held by Mr. Seaman; (xvii) 5,334 shares of common stock underlying Series C warrants exercisable at $30.00 per share held by Mr. Seaman; and (xviii) 7,500 shares of common stock underlying a Warrant held by Mr. Seaman. The information in this footnote is primarily based on the Foundation 13D and other information provided to us.

(9) Chaswil, Ltd. is the investment manager of Ventures and holds voting power and investment power with respect to Company securities held by Ventures pursuant to a written agreement. Scott B. Seaman is a principal of Chaswil, Ltd and has shared voting power and shared investment power over all of the shares of common stock beneficially owned by Ventures. The information in this footnote is primarily based on the Foundation 13D and other information provided to us. The mailing address of the beneficial owner is 1221 McKinney #4545, Houston, Texas 77010.

(10) Consisting of: (i) 9,909 shares of common stock underlying Series B warrants exercisable at $20.00 per share; (ii) 18,223 shares of common stock underlying Series C warrants exercisable at $30.00 per share; and (iii) 125,000 shares of common stock underlying a Warrant.

(11) Randa Duncan Williams is the principal of DLD Family Investments, LLC and she may be deemed to exercise voting and investment power with respect to such shares. The information in this footnote is primarily based on the Foundation 13D and other information provided to us. The mailing address of the beneficial owner is P.O. Box 4735, Houston, Texas 77210-4735.

(12) Consisting of: (i) 233,334 shares of common stock held by DLD Family Investments, LLC; (ii) 9,667 shares of common stock underlying Series B warrants exercisable at $20.00 per share held by DLD Family Investments, LLC; (iii) 17,778 shares of common stock underlying Series C warrants exercisable at $30.00 per share held by DLD Family Investments, LLC; and (iv) 110,000 shares of common stock underlying the Warrants held by DLD Family Investments, LLC. Ms. Williams is on the investment committee for the Foundation. Pursuant to the Foundation 13D, the Foundation has concluded that no individual committee member is deemed to beneficially own, within the meaning of Rule 13d-3 of the Exchange Act, any shares of common stock held by the Foundation solely by virtue of the fact that he or she is a member of the investment committee. The information in this footnote is primarily based on the Foundation 13D and other information provided to us. The mailing address of the beneficial owner is P.O. Box 4735, Houston, Texas 77210-4735.

(13) Consisting of: (i) 17,500 shares underlying an option; (ii) 263,667 shares of common stock held by Ventures; (iii) 9,909 shares of common stock underlying Series B warrants exercisable at $20.00 per share held by Ventures; (iv) 18,223 shares of common stock underlying Series C warrants exercisable at $30.00 per share held by Ventures; (v) 125,000 shares of common stock underlying the Warrants held by Ventures; (vi) 2,900 shares of common stock underlying Series B warrants exercisable at $20.00 per share; (vii) 5,334 shares of common stock underlying Series C warrants exercisable at $30.00 per share; and (viii) 7,500 shares of common stock underlying the Warrants. (See footnote 8 for additional discussion of the information set forth in clauses (ii) through (v) of the preceding sentence.) Pursuant to the Foundation 13D, this does not include the following shares which Mr. Seaman has determined he does not have beneficial ownership or disclaimed beneficial ownership: (i) 516,667 shares of common stock held by the Foundation; (ii) 12,084 shares of common stock underlying Series B warrants exercisable at $20.00 per share held by the Foundation; (iii) 22,223 shares of common stock underlying Series C warrants exercisable at $30.00 per share held by the Foundation; (vi) 250,000 shares of common stock underlying a Warrant held by the Foundation; and (v) 1,500 shares of common stock that Mr. Seaman has agreed to transfer to his ex-wife pursuant to an Agreement Incident to Divorce dated April 4, 2006. (See footnote 7 for additional discussion of the information set forth in clauses (i) through (iv) of the preceding sentence.) The mailing address of the beneficial owner is 1221 McKinney #4545, Houston, Texas 77010.

(14) Consisting of: (i) 40,334 shares of common stock underlying stock options; (ii) 3,789 shares of common stock underlying Series B warrants exercisable at $20.00 per share; and (iii) 6,968 shares of common stock underlying Series C warrants exercisable at $30.00 per share.

(15) Consisting of: (i) 31,666 shares of common stock underlying stock options; (ii) 665 shares of common stock underlying Series B warrants exercisable at $20.00 per share; and (iii) 1,223 shares of common stock underlying Series C warrants exercisable at $30.00 per share.

(16) Consisting of: (i) 17,500 shares underlying stock options; (ii) a warrant to purchase 38,928 shares of common stock exercisable at $5.00 per share; (iii) 10,000 shares of common stock held by Palantir Group, Inc., an entity in which Dr. Bailey has investment and voting power; and (iv) 5,000 shares of common stock underlying a Warrant held by Palantir Group, Inc.

(17) Consisting of 17,500 shares of common stock underlying options.

(18) Consisting of 17,500 shares of common stock underlying stock options.

(19) Consisting of: (a) the following held by Mr. Seaman or which Mr. Seaman may be deemed to have voting and investment power (i) 17,500 shares underlying an option; (ii) 263,667 shares of our common stock held by Ventures; (iii) 9,909 shares of our common stock underlying Series B warrants exercisable at $20.00 per share held by Ventures; (iv) 18,223 shares of our common stock underlying Series C warrants exercisable at $30.00 per share held by Ventures; (v) 125,000 shares of our common stock underlying a Warrant held by Ventures; (vi) 2,900 shares of our common stock underlying Series B warrants exercisable at $20.00 per share; (vii) 5,334 shares of our common stock underlying Series C warrants exercisable at $30.00 per share; and (viii) 7,500 shares of our common stock underlying a Warrant; (b) the following held by Mr. McWilliams (i) 40,334 shares of common stock underlying stock options; (ii) 3,789 shares of common stock underlying Series B warrants exercisable at $20.00 per share; and (iii) 6,968 shares of our common stock underlying Series C warrants exercisable at $30.00 per share; (c) the following held by Dr. Bailey or which Dr. Bailey has voting and investment power; (i) 17,500 shares underlying stock options; (ii) 38,928 shares of common stock underlying a Warrant exercisable at $5.00 per share; (iii) 10,000 shares of common stock held by Palantir Group, Inc.; and (iv) 5,000 shares of commons underlying a Warrant held by Palantir Group, Inc.; (d) 17,500 shares underlying stock options held by Dr. Hung; (e) 17,500 shares underlying stock options held by Mr. Richman; and (f) the following held by Mr. Rouse (i) 31,667 shares of common stock underlying stock options; (ii) 665 shares of common stock underlying Series B warrants exercisable at $20.00 per share; and (iii) 1,223 shares of our common stock underlying Series C warrants exercisable at $30.00 per share.

## SELLING STOCKHOLDERS

The common stock covered by this prospectus is to be offered for the account of the selling stockholders in the following table. The selling stockholders may from time to time sell or otherwise dispose of all, some or none of the shares of common stock covered hereby, or interests therein.

The following table, which we have prepared based on information provided to us by the applicable selling stockholder, sets forth the name, the number of shares of common stock beneficially owned by the selling stockholders and the number of shares of common stock that may be sold or otherwise disposed of by the selling stockholders under this prospectus. Unless set forth below, none of the selling stockholders selling in connection with the prospectus has held any position or office with, been employed by, or otherwise has had a material relationship with us or any of our affiliates during the three years prior to the date of the prospectus.

| Name of Selling Stockholder | Footnote Numbers | Number of Shares of Common Stock Beneficially Owned (1) | Number of Shares of Common Stock Offered Hereunder | Number and % of Outstanding Shares of Common Stock Owned After Completion of Offering | |
|---|---|---|---|---|---|
| | | | | Number | % (2) |
| Aaron A. Grunfeld | 3. | 30,000 | 30,000 | -0- | * |
| Albert and Margaret Alkek Foundation | 4. | 685,973 | 750,000 | 50,973 | * |
| Alkek & Williams Ventures Ltd. | 5. | 416,798 | 375,000 | 41,798 | * |
| Andrew B. Linbeck | 6. | 15,000 | 15,000 | 0- | * |
| Benjamin Lewin | 7. | 30,000 | 30,000 | -0- | * |
| Capital Growth Trust | 8. | 15,000 | 15,000 | -0- | * |
| Charles E. Sheedy | 9. | 150,000 | 150,000 | -0- | * |
| Clarkson Family Trust | 10. | 15,000 | 15,000 | -0- | * |
| Daniel C. Arnold | 11. | 50,389 | 30,000 | 20,389 | * |
| David E. Jorden | 12. | 90,000 | 90,000 | -0- | * |

| Name of Selling Stockholder | Footnote Numbers | Number of Shares of Common Stock Beneficially Owned (1) | Number of Shares of Common Stock Offered Hereunder | Number and % of Outstanding Shares of Common Stock Owned After Completion of Offering | |
|---|---|---|---|---|---|
| | | | | Number | % (2) |
| David E. Jorden Rollover IRA Chase Custodian for Morgan Stanley & Co., Inc. | 13. | 90,000 | 90,000 | -0- | * |
| Davis Investments V LP | 14. | 205,928 | 22,500 | 183,428 | 2.7% |
| DLD Family Investments, LLC | 15. | 370,778 | 330,000 | 40,778 | * |
| Duane Clarkson | 16. | 12,000 | 12,000 | -0- | * |
| FEQ Gas, LLC | 17. | 15,000 | 15,000 | -0- | * |
| Frank H. Richardson | 18. | 30,000 | 30,000 | -0- | * |
| J. Livingston Kosberg Trust | 19. | 30,000 | 30,000 | -0- | * |
| James P. Tierney | 20. | 22,500 | 22,500 | -0- | * |
| Joe M. Bailey | 21. | 15,000 | 15,000 | -0- | * |
| Jose Pastora | 22. | 15,000 | 15,000 | -0- | * |
| JTL Securities | 23. | 75,000 | 75,000 | -0- | * |
| Magnetar Capital Master Fund, Ltd. | 24. | 672,500 | 960,000 | -0- | * |
| MDB Capital Group, LLC | 25. | 415,925 | 415,925 | -0- | * |
| MTW Internet Holdings Inc. | 26. | 30,000 | 30,000 | -0- | * |
| Palantar Group, Inc | 27. | 15,000 | 15,000 | -0- | * |
| Participating Capital Corp | 28. | 30,000 | 30,000 | -0- | * |
| Raymond Kim | 29. | 60,400 | 60,400 | -0- | * |

| Name of Selling Stockholder | Footnote Numbers | Number of Shares of Common Stock Beneficially Owned (1) | Number of Shares of Common Stock Offered Hereunder | Number and % of Outstanding Shares of Common Stock Owned After Completion of Offering | |
|---|---|---|---|---|---|
| | | | | Number | % (2) |
| Renaissance Interests, LP | 30. | 36,409 | 15,000 | 21,409 | * |
| Robert M. Levande & Andrea Brown JTWROS | 31. | 7,500 | 7,500 | -0- | * |
| Schroder & Co. Bank AG | 32. | 88,679 | 45,000 | 43,679 | * |
| Scott B. Seaman | 33. | 468,581 | 22,500 | 71,081 | * |
| Sean Cusak | 34. | 75,000 | 75,000 | -0- | * |
| SF Capital Partners Ltd | 35. | 1,000,000 | 1,500,000 | -0- | * |
| Snehal S. Patel | 36. | 37,622 | 5,390 | 32,232 | * |
| Snehal S. Patel and Kinnary S. Patel Joint Tenants in Common | 37. | 197,164 | 115,500 | 81,664 | 1.2% |
| Special Situations Cayman Fund, L.P(38) | 39. | 135,900 | 135,900 | -0- | * |
| Special Situations Fund III, QP, L.P. (38) | 40. | 496,500 | 496,500 | -0- | * |
| Special Situations Fund III, L.P. (38) | 41. | 42,600 | 42,600 | -0- | * |
| Special Situations Life Sciences Fund, L.P. (38) | 42. | 225,000 | 225,000 | -0- | * |
| Special Situations Private Equity Fund, L.P. (38) | 43. | 600,000 | 600,000 | -0- | * |
| Stephen Walker Family Trust | 44. | 45,000 | 45,000 | -0- | * |
| Steven Mintz | 45. | 22,500 | 22,500 | -0- | * |
| Gregory H. Bailey | 46. | 71,428 | 38,928 | 17,500 | * |
| Robert M. Levande | 47. | 37,508 | 37,508 | -0- | * |

| Name of Selling Stockholder | Footnote Numbers | Number of Shares of Common Stock Beneficially Owned (1) | Number of Shares of Common Stock Offered Hereunder | Number and % of Outstanding Shares of Common Stock Owned After Completion of Offering | |
|---|---|---|---|---|---|
| | | | | Number | % (2) |
| Christopher A. Marlett | 48. | 750 | 750 | -0- | * |
| Anthony DiGiandomenico | 49. | 180 | 180 | -0- | * |
| Karen Simi | 50. | 5,000 | 5,000 | -0- | * |
| Scott Leach | 51. | 4,000 | 4,000 | -0- | * |
| Peter Gmunder | 52. | 3,200 | 3,200 | -0- | * |
| Gary Cohen | 53. | 2,440 | 2,440 | -0- | * |

**FOOTNOTES:**

1. Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and generally includes voting or investment power with respect to securities. Shares of common stock subject to options or warrants currently exercisable or exercisable within 60 days of June 19, 2006 are deemed outstanding for computing the percentage of the person holding such option or warrant but are not deemed outstanding for computing the percentage of any other person.

2. Percentage is based on 6,696,704 shares of common stock outstanding.

3. Includes 10,000 shares of common stock underlying a warrant.

4. Number of shares of common stock offered includes 250,000 shares of common stock underlying a warrant. The number of shares of common stock beneficially owned includes (i) 34,306 shares of common stock underlying warrants related to shares from a prior financings and previously registered; and (ii) 135,000 shares of common stock underlying the warrant and excludes 115,000 shares of common stock underlying the warrant because the Foundation is contractually prohibited from exercising the warrant to the extent that the Foundation would beneficially own in excess of 9.999% of the total number of issued and outstanding shares of common stock after such exercise. The Foundation is a tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code of 1986, as amended, and is classified as a private foundation by the Internal Revenue Service. Voting and dispositive power over all of the shares beneficially owned by the Foundation is exercised by its investment committee, which is a committee of its board of directors. Daniel C. Arnold, Joe M. Bailey, Scott B. Seaman and Randa Duncan Williams are members of the investment committee of the Foundation. Neither the executive director nor any member of the investment committee may act individually to vote or sell shares beneficially owned by the Foundation; therefore, no individual committee member is deemed to beneficially own, within the meaning of Rule 13d-3, any shares beneficially owned by the Foundation solely by virtue of the fact that he or she is a member of the investment committee.

5. Number of shares of common stock offered includes 125,000 shares of common stock underlying a warrant. Number of shares beneficially owned includes (i) 28,131 shares of common stock underlying warrants related to shares from prior financings and previously registered; and (ii) 125,000 shares of common stock underlying a warrant. Ventures is a private investment fund. Chaswil Ltd. is the investment manager of Ventures and holds voting power and dispositive power with respect to all shares beneficially owned by Ventures pursuant to a written agreement. Mr. Seaman is a registered principal of Chaswil Ltd. and may be deemed to have or share voting power and/or dispositive power with respect to all shares beneficially owned by Ventures.

6. Includes 5,000 shares of common stock underlying a warrant.

7. Includes 10,000 shares of common stock underlying a warrant.

8. Includes 5,000 shares of common stock underlying a warrant. Capital Growth Trust is a private investment fund. Vicki Appel exercises voting and dispositive power over all of the shares beneficially owned by Capital Growth Trust.

9. Includes 50,000 shares of common stock underlying a warrant.

10. Includes 5,000 shares of common stock underlying a warrant. Richard L. Clarkson exercises voting and dispositive power over all of the shares beneficially owned by the Clarkson Family Trust.

11. Number of shares of common stock offered includes 10,000 shares of common stock underlying a warrant. Number of shares beneficially owned includes (i) 10,000 shares of common stock underlying a warrant; and (ii) 13,723 shares of common stock underlying warrants related to shares from prior financings and previously registered.

12. Includes 30,000 shares of common stock underlying a warrant.

13. Includes 30,000 shares of common stock underlying a warrant. David E. Jorden exercises voting and dispositive power over all of the shares beneficially owned by David E. Jorden, IRA, Morgan Stanley & Co, Inc., Custodian.

14. Number of shares of common stock offered includes 7,500 shares of common stock underlying a warrant. Number of shares beneficially owned includes (i) 7,500 shares of common stock underlying a warrant; and (ii) 109,036 shares of common stock underlying warrants related to shares from prior financings and previously registered. Davis Investments V, LP is a private investment fund. Christopher Davis exercises voting and dispositive power over all of the shares beneficially owned by Davis Investments V, LP.

15. Number of shares of common stock offered includes 110,000 shares of common stock underlying a warrant. Number of shares beneficially owned includes (i) 27,445 shares of common stock underlying warrants related to shares from prior financings and previously registered and (ii) 110,000 shares of common stock underlying a warrant. Laura Liang exercises voting and dispositive power over all of the shares beneficially owned by DLD Family Investments, LLC.

16. Includes 4,000 shares of common stock underlying a warrant.

17. Includes 5,000 shares of common stock underlying a warrant. Ernest Bartlett exercises voting and dispositive power over all of the shares beneficially owned by FEQ Gas, LLC.

18. Includes 10,000 shares of common stock underlying a warrant.

19. Includes 10,000 shares of common stock underlying a warrant. J. Livingston Kosberg exercises voting and dispositive power over all of the shares beneficially owned by the J. Livingston Kosberg Trust.

20. Includes 7,500 shares of common stock underlying a warrant.

21. Includes 5,000 shares of common stock underlying a warrant.

22. Includes 5,000 shares of common stock underlying a warrant.

23. Includes 25,000 shares of common stock underlying a warrant. JTL Securities is a private investment fund. Joel Leonard exercises voting and dispositive power over all of the shares beneficially owned by JTL Securities.

24. Number of shares of common stock offered includes 320,000 shares of common stock underlying a warrant. The number of shares of common stock beneficially owned includes 32,500 shares of common stock underlying the warrant and excludes 287,500 shares of common stock underlying the warrant because the Magnetar is contractually prohibited from exercising the warrant to the extent that the Magnetar would beneficially own in excess of 9.999% of the total number of issued and outstanding shares of common stock after such exercise. Magnetar Financial LLC is the investment advisor of Magnetar and consequently has voting control and investment discretion over securities held by Magnetar. Magnetar Financial LLC disclaims beneficial ownership of the shares held by Magnetar. Alec Litowitz has voting control over Supernova Management LLC, which is the general partner of Magnetar Capital Partners LP, the sole managing member of Magnetar Financial LLC. As a result, Mr. Litowitz may be considered the beneficial owner of any shares deemed to be beneficially owned by Magnetar Financial LLC. Mr. Litowitz disclaims beneficial ownership of these shares.

25. Includes 415,925 shares of common stock underlying warrants. MDB is a private investment fund that acquired a warrant to purchase 115,925 shares of common stock in connection with the Financing. Paul Smith exercises voting and dispositive power over all of the shares beneficially owned by MDB.

26. Includes 10,000 shares of common stock underlying a warrant. Grant Eckberg exercises voting and dispositive power over all of the shares beneficially owned by MTW Internet Holdings, Inc.

27. Includes 5,000 shares of common stock underlying a warrant. Greg Bailey exercises voting and dispositive power over all of the shares beneficially owned by Palantar Group, Inc.

28. Includes 10,000 shares of common stock underlying a warrant. V. Bailey exercises voting and dispositive power over all of the shares beneficially owned by Participating Capital Corp.

29. Includes 20,400 shares of common stock underlying warrants. Raymond Kim is a financial consultant and acquired a warrant to purchase 400 shares of common stock in connection with the Financing.

30. Number of shares of common stock offered includes 5,000 shares of common stock underlying a warrant. Number of shares of common stock beneficially owned includes (i) 5,000 shares of common stock underlying the warrant; and (ii) 14,409 shares of common stock underlying warrants to shares from prior financings and previously registered. Renaissance Interests, L.P. is a private investment fund. Bradley C. Karp exercises voting and dispositive power over all of the shares beneficially owned by Renaissance Interests, L.P.

31. Includes 2,500 shares of common stock underlying a warrant.

32. Number of shares of common stock offered includes 15,000 shares of common stock underlying a warrant. Number of shares beneficially owned includes: (i) 15,000 shares of common stock underlying the warrant; and (ii) 25,965 shares of common stock underlying warrants related to shares from prior financings and previously registered. T. Reichen exercises voting and dispositive power over all of the shares beneficially owned by Schroder & Co Bank AG .

33. Number of shares of common stock offered includes 7,500 shares of common stock underlying a warrant. Number of shares beneficially owned includes: (i) 7,500 shares of common stock underlying a warrant; (ii) 17,500 shares underlying an option; (iii) 263,667 shares of common stock held by Ventures; (iv) 9,909 shares of common stock underlying series B warrants exercisable at $20.00 per share held by Ventures; (v) 18,223 shares of common stock underlying series C warrants exercisable at $30.00 per share held by Ventures; (vi) 125,000 shares of common stock underlying the April 2006 warrants held by Ventures; (vii) 2,900 shares of common stock underlying series B warrants exercisable at $20.00 per share; and (viii) 5,334 shares of common stock underlying series C warrants exercisable at $30.00 per share.

34. Number of shares of common stock offered includes 25,000 shares of common stock underlying a warrant. Number of shares beneficially owned includes: (i) 25,000 shares of common stock underlying a warrant; and (ii) 10,332 shares of common stock underlying warrants related to shares from prior financings and previously registered.

35. Number of shares of common stock offered includes 500,000 shares of common stock underlying a warrant. Number of shares of common stock beneficially owned excludes 500,000 shares of common stock underlying a warrant because the SF Capital Partners Ltd. is contractually prohibited from exercising the warrant to the extent that the SF Capital Partners Ltd. would beneficially own in excess of 9.999% of the total number of issued and outstanding shares of common stock after such exercise. SF Capital Partners Ltd. is a private investment fund. Brian H. Davidson exercises voting and dispositive power over all of the shares beneficially owned by SF Capital Partners Ltd, but Messrs Roth and Stark disclaim beneficial ownership of such shares.

36. Number of shares of common stock offered includes 5,390 shares of common stock underlying a warrant. Number of shares beneficially owned includes: 5,390 shares of common stock underlying a warrant; and (ii) 10,332 shares of common stock underlying warrants related to shares from prior financings and previously registered. Snehal Patel is a financial consultant and acquired the warrant to purchase 5,390 shares of common stock in connection with the financing.

37. Number of shares of common stock offered includes 38,500 shares of common stock underlying a warrant. Number of shares beneficially owned includes: 38,500 shares of common stock underlying a warrant; and (ii) 48,501 shares of common stock underlying warrants related to shares from prior financings and previously registered.

38. MGP is the general partner of Special Situations Fund III, QP, L.P. and Special Situations Fund III, L.P. AWM is the general partner of MGP and the general partner of and investment adviser to the Special Situations Cayman Fund, L.P. SSTA is the general partner of and investment adviser to the Special Situations Technology Fund, L.P. and the Special Situations Technology Fund II, L.P. MG is the general partner of and investment adviser to the Special Situations Private Equity Fund, L.P. LS is the general partner and investment adviser to the Special Situations Life Sciences Fund, L.P. Austin W. Marxe and David M. Greenhouse are the principal owners of MGP, AWM, SSTA, MG and LS. Through their control of MGP, AWM, SSTA, MG and LS, Messrs. Marxe and Greenhouse share voting and investment control over the portfolio securities of each of the funds listed above.

39. Includes 45,300 shares of common stock underlying a warrant.

40. Includes 165,500 shares of common stock underlying a warrant.

41. Includes 14,200 shares of common stock underlying a warrant.

42. Includes 75,000 shares of common stock underlying a warrant.

43. Includes 200,000 shares of common stock underlying a warrant.

44. Includes 15,000 shares of common stock underlying a warrant. Stephen Walker exercises voting and dispositive power over all of the shares beneficially owned by the Stephen Walker Family Trust.

45. Includes 7,500 shares of common stock underlying a warrant.

46. Number of shares of common stock offered includes 38,928 shares of common stock underlying a warrant. Number of shares beneficially owned includes: 38,928 shares of common stock underlying a warrant; (ii) 17,500 shares underlying options; (iii) 10,000 shares of common stock held by Palantir Group, Inc., an entity in which Dr. Bailey has investment and voting power; and (iv) 5,000 shares of common stock underlying a Warrant held by Palantir Group, Inc. Gregory H. Bailey acquired the warrant to purchase 38,928 shares of common stock as a financial consultant of the Company in connection with the Financing.

47. Includes 37,508 shares of common stock underlying a warrant. Robert M. Levande is a financial consultant and acquired these securities in connection with the Financing.

48. Includes 750 shares of common stock underlying a warrant. Christopher A. Marlett is a financial consultant and acquired these securities in connection with the Financing.

49. Includes 180 shares of common stock underlying a warrant. Anthony DiGiandomenico is a financial consultant and acquired these securities in connection with the Financing.

50. Includes 5,000 shares of common stock underlying a warrant. Karen Simi is a financial consultant and acquired these securities in connection with the Financing.

51. Includes 4,000 shares of common stock underlying a warrant. Scott Leach is a financial consultant and acquired these securities in connection with the Financing.

52. Includes 3,200 shares of common stock underlying a warrant. Peter Gmunder is a financial consultant and acquired these securities in connection with the Financing.

53. Includes 2,440 shares of common stock underlying a warrant. Gary Cohen is a financial consultant and acquired these securities in connection with the Financing.

## CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Prior to the April 2006 financing, Mr. Seaman, individually owned 5,050 shares of the Company's common stock, Series B warrants to purchase 2,000 shares of the Company's common stock, and Series C warrants to purchase 4,000 shares of the Company's common stock. In addition, Ventures, an entity in which Mr. Seaman may be deemed to have voting power and/or investment power, owned 13,667 shares of the Company's common stock, Series B warrants to purchase 9,909 shares of the Company's common stock, and Series C warrants to purchase 18,223 shares of the Company's common stock. In connection with the April 2006 financing, (i) Mr. Seaman individually purchased 15,000 shares of the Company's common stock and was issued a Warrant to purchase 7,500 shares of the Company's common stock, and (ii) Ventures acquired 250,000 shares of the Company's common stock and a Warrant to purchase 125,000 shares of the Company's common stock. Pursuant to the Foundation 13D, Mr. Seaman has concluded that he does not have beneficial ownership of the shares of stock held by Foundation. Additionally, pursuant to the Foundation 13D, Mr. Seaman and other reporting persons named therein may be deemed to constitute a group for purposes of Section 13(d) or Section 13(g) of the Exchange Act. However, the Foundation, Ventures, Chaswil, Ltd., and Mr. Seaman expressly disclaim (i) that, for purposes of Section 13(d) or Section 13(g) of the Exchange Act, they are a member of a group with respect to securities of the Company held by DLD Family Investments, LLC, Mr. Arnold, Mr. Bailey or Ms. Williams and (ii) that they have agreed to act together with DLD Family Investments, LLC, Mr. Arnold, Mr. Bailey or Ms. Williams as a group other than as described in the Foundation 13D. The reporting persons in the Foundation 13D, other than Mr. Seaman and Ventures, own in the aggregate: ( i) 786,667 shares of common stock; (ii) 23,584 shares of common stock underlying Series B warrants exercisable at $20.00 per share; (iii) 44,445 shares of common stock underlying Series C warrants exercisable at $30.00 per share; and (iv) 260,000 shares of common stock underlying Warrants.

In connection with the April 2006 financing, (i) Palantir Group, Inc., an entity in which Dr. Bailey has voting power and/or investment power, acquired 10,000 shares of the Company's common stock and a Warrant to purchase 5,000 shares of the Company's common stock, (ii) ) MDB Capital Group LLC, an entity in which Dr. Bailey is an managing director, but disclaims any voting power and/or investment power, acquired 200,000 shares of the Company's common stock and a Warrant to purchase 100,000 shares of the Company's common stock, and (iii) MDB Capital Group LLC received $1,723,300 for its services in the April 2006 financing and a three year warrant to purchase 208,330 shares of the Company's common stock at $5.00 per share, of which MDB Capital Group LLC assigned the right to purchase 38,928 shares of common stock to Dr. Bailey on April 24, 2006.

None of our executive officers or directors and their family members or affiliates are indebted to us in an amount greater than $60,000.

## DESCRIPTION OF SECURITIES

**Our Capitalization**

*Common Stock*

We are authorized to issue 100,000,000 shares of common stock, par value $0.50 per share. As of June 19, 2006, there were 6,696,704 shares of common stock issued and outstanding. Each share of common stock is entitled to one vote per share for the election of directors and on all other matters submitted to a vote of stockholders. There are no cumulative voting rights. Common stockholders do not have preemptive rights or other rights to subscribe for additional shares, and the common stock is not subject to conversion or redemption. In the event of liquidation, the holders of common stock will share equally in any balance of corporate assets available for distribution to them. Subject to the rights of holders of the any other securities subsequently issued, holders of the common stock are entitled to receive dividends when and as declared by our Board of Directors out of funds legally available. We have not paid any dividends since its inception and have no intention to pay any dividends in the foreseeable future. Any future dividends would be subject to the discretion of the Board of Directors and would depend on, among other things, our future earnings, the operating and financial condition, our capital requirements, and general business conditions.

*Preferred Stock*

We are authorized to issue 10,000,000 shares of preferred stock, no par value per share. As of June 19, 2006, no shares of preferred stock are issued and outstanding. Our Board of Directors can, without approval of our stockholders, issue one or more series of preferred stock. If we offer preferred stock, our Board of Directors will determine the number of shares and the rights, preferences and limitations of each series. These rights, preferences and limitations may include specific designations, number of shares, liquidation value, dividend rights, liquidation and redemption rights, voting rights,

*Warrants and Options*

**2004 Stock Incentive Plan** . Pursuant to our 2004 Stock Incentive Plan we may issue to our officers, directors, employees and consultants incentive stock options, non-qualified stock options and shares of restricted stock. The plan provides for us to issue up to 1,200,000 shares of its common stock pursuant to awards under the plan. As of June 19, 2006 we had outstanding options, granted pursuant to the plan, to purchase 729,003 shares of common stock. The plan is designed to qualify under the Internal Revenue Code as an incentive stock option plan.

**Series B Warrants and Series C Warrants** . As of June 19, 2006 we have issued and outstanding (i) Series B Warrants to purchase an aggregate of 603,737 of our common shares, and (ii) Series C Warrants to purchase an aggregate of 1,110,537 of our common shares.

(i) The Series B Warrant is exercisable at any time and has an exercise price of $20.00 per share and expires on October 17, 2006.

(ii) The Series C Warrant is exercisable at any time and has an exercise price of $30.00 per share and expires June 17, 2010

All of the warrants are exercisable immediately and are only exercisable by “accredited investors” as defined in Regulation D under the Securities Act of 1933.

**April 2006 Warrants** . In an offering consummated April 17, 2006, we issued warrants to acquire an aggregate of 2,300,000 shares. The April 2006 warrants have an exercise price of $6.50 per share. We have the right to call the April 2006 warrants commencing one year from the effective date of a resale registration statement if the closing bid price per share of our common stock equals or exceeds $13.00 for twenty consecutive trading days in which the daily average trading volume of the common stock is at least 20,000 shares. Additionally, if the resale registration statement for the re-sale of the shares issuable upon exercise of the warrants is not effective for any period after April 13, 2007, then the warrant holders may exercise their warrants on a cashless basis during the period the resale registration statement is not effective.

**Placement Agent Warrants** . In connection with the 15% Convertible Exchangeable Note offering and the common stock offerings closed June 17, 2005 we have issued to the placement agent and other brokerage firms in those offerings warrants to purchase an aggregate of 46,085 shares of common stock at an exercise price of $15.00. These warrants are exercisable immediately and will expire June 17, 2010.

**Other Obligations To Issue Shares** . Our license agreement with the University of Chicago obligates us, by October 31, 2006, to issue sufficient additional shares to the University of Chicago so that it holds 2.6% of our common stock.

**Restrictions on Sales By Certain Existing Shareholders.** A total of 250,000 shares held by Top Tier Investment, LLC and various other shareholders are subject to another lock-up agreement effective November 5, 2004 that limits sales to an aggregate of 31,250 shares of our common stock per 90-day period. There is no termination provision in this lock-up agreement.

## PLAN OF DISTRIBUTION

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales effected after the date the registration statement of which this prospectus is a part is declared effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;

- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted by law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering. Upon any exercise of the warrants by payment of cash, however, we will receive the exercise price of the warrants.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act of 1933, provided that they meet the criteria and conform to the requirements of that rule.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be "underwriters" within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are "underwriters" within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, to the extent applicable we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement or (2) the date on which the shares may be sold pursuant to Rule 144(k) of the Securities Act.

## LEGAL MATTERS

The validity of the common stock offered by this prospectus was passed upon for us by Vinson & Elkins L.L.P., Houston, Texas.

## EXPERTS

The consolidated financial statements for the year ended December 31, 2005 and for the period from January 22, 2003 (date of inception) to December 31, 2005 included in this prospectus have been audited by Malone & Bailey PC, independent registered public accounting firm, as stated in their report appearing herein.

## WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we file with the Securities and Exchange Commission. This prospectus does not contain all of the information contained in the registration statement and all of the exhibits and schedules thereto. For further information about Opexa Therapeutics, Inc., please see the complete registration statement. Summaries of agreements or other documents in this prospectus are not necessarily complete. Please refer to the exhibits to the registration statement for complete copies of such documents.

We file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission under the Securities Exchange Act of 1934. You may read and copy the registration statement, including exhibits and schedules filed with it, at the SEC's public reference facilities at 100 F Street N.W., Washington, D.C. 20549. You may obtain information on the operation of the public reference room in Washington, D.C. by calling the Securities and Exchange Commission at 1-800-SEC-0330.

We file information electronically with the Securities and Exchange Commission. Our Securities and Exchange Commission filings also are available from the Securities and Exchange Commission's Internet site at http://www.sec.gov, which contains reports, proxy and information statements and other information regarding issuers that file electronically.

## INDEX TO FINANCIAL STATEMENTS

**PHARMAFRONTIERS CORP.**
**(a development stage company)**
**CONSOLIDATED BALANCE SHEETS**

| | (Restated) March 31, 2006 (unaudited) | December 31, 2005 (audited) |
|---|---|---|
| **Assets** | | |
| Current assets: | | |
| Cash | $ 1,059,856 | $ 2,560,666 |
| Other current assets | 208,488 | 182,524 |
| Total current assets | 1,268,344 | 2,743,190 |
| Intangible assets, net of $2,298,174 and $1,888,891 of accumulated amortization | 25,846,159 | 26,130,441 |
| Property & equipment, net of $278,300 and $256,082 of accumulated depreciation | 549,574 | 479,996 |
| Other assets | 450,943 | 388,210 |
| Total assets | $ 28,115,020 | $ 29,741,837 |
| **Liabilities and Stockholder's Equity** | | |
| Current liabilities: | | |
| Accounts payable | $ 773,317 | $ 689,467 |
| Accrued expenses | 89,702 | 240,309 |
| Note payable | 1,500,000 | 1,500,000 |
| Derivative Liability | 6,507,515 | 6,761,655 |
| Total current liabilities | 8,870,534 | 9,191,431 |
| Commitments and contingencies | - | - |
| Stockholder' equity: | | |
| Convertible preferred stock, no par value, 10,000,000 shares authorized, none issued and outstanding | - | - |
| Common stock, $.05 par value, 100,000,000 shares authorized, 20,967,035 and 20,619,545 shares issued and outstanding | 1,048,351 | 1,030,977 |
| Additional paid in capital | 40,430,468 | 39,783,452 |
| Deficit accumulated during the development stage | (22,234,333) | (20,264,023) |
| Total stockholders' equity | 19,244,486 | 20,550,406 |
| Total liabilities and stockholders' equity | $ 28,115,020 | $ 29,741,837 |

**PHARMAFRONTIERS CORP.**
**(a development stage company)**
**CONSOLIDATED STATEMENTS OF EXPENSES**
**Three Months ended March 31, 2006 and 2005 and the**
**Period from January 22, 2003 (Inception) to March 31, 2006**
**(unaudited)**

| | (Restated) Three Months Ended March 31, 2006 | Three Months Ended March 31, 2005 | (Restated) Inception through March 31, 2006 |
|---|---|---|---|
| General and administrative | $ 1,075,882 | $ 1,206,715 | $ 2,279,394 |
| Depreciation and amortization | 432,333 | 418,315 | 2,432,362 |
| Research and development | 738,450 | 644,264 | 13,096,337 |
| Loss on disposal of assets | 362 | - | 480,294 |
| Operating loss | (2,247,027) | (2,269,294) | (18,288,387) |
| Interest income | 19,621 | 6,930 | 107,543 |
| Other income | 3,385 | 2,444 | 33,938 |
| Gain on derivative liability | 254,140 | - | 4,150,981 |
| Interest expense | (429) | (1,487,384) | (8,238,408) |
| Net loss | $ (1,970,310) | $ (3,747,304) | $ (22,234,333) |
| Basic and diluted loss per share | $ (0.10) | $ (0.37) | N/A |
| Weighted average shares outstanding | 20,654,294 | 10,224,456 | N/A |

**PHARMAFRONTIERS CORP.**
**(a development stage company)**
**CONSOLIDATED STATEMENTS OF CASH FLOWS**
**Three Months ended March 31, 2006 and 2005 and the**
**Period from January 22, 2003 (Inception) to March 31, 2006**
**(unaudited)**

| | (Restated) Three Months Ended March 31, 2006 | Three Months Ended March 31, 2005 | (Restated) Inception through March 31, 2006 |
|---|---|---|---|
| Cash flows from operating activities | | | |
| Net loss | $ (1,970,310) | $ (3,747,304) | $ (22,234,333) |
| Adjustments to reconcile net loss to net cash used in operating activities | | | |
| Stock issued for services | - | - | 1,861,400 |
| Stock issued for debt in excess of principal | - | 109,070 | 109,070 |
| Amortization of discount on notes payable due to warrants and beneficial conversion feature | - | 1,294,100 | 6,313,205 |
| Amortization of intangible assets | 409,282 | 396,869 | 2,298,172 |
| Gain on derivative liability | (254,140) | | (4,150,981) |
| Depreciation | 23,051 | 21,444 | 134,187 |
| Debt financing costs | - | - | 365,910 |
| Option and warrant expense | 484,392 | 355,400 | 5,469,354 |
| Loss on disposition of fixed assets | - | - | 479,932 |
| Changes in: | | | |
| Accounts payable | 83,850 | (554,772) | 169,019 |
| Prepaid expenses | (25,965) | (34,973) | (153,100) |
| Accrued expenses | 29,393 | 249,575 | 84,373 |
| Other assets | (62,734) | - | (450,944) |
| Net cash used in operating activities | (1,283,181) | (1,910,591) | (9,704,736) |
| Cash flows from investing activities | | | |
| Purchase of licenses | (125,000) | - | (357,742) |
| Purchase of property & equipment | (92,629) | (28,352) | (524,536) |
| Net cash used in investing activities | (217,629) | (28,352) | (882,278) |
| Cash flows from financing activities | | | |
| Common stock sold for cash, net of offering costs | - | - | 5,356,217 |
| Common stock repurchased and canceled | - | - | (325) |
| Proceeds from debt | - | 2,856,660 | 6,354,592 |
| Repayments on notes payable | - | (58,614) | (63,614) |
| Net cash provided by financing activities | - | 2,798,046 | 11,646,870 |
| Net change in cash | (1,500,810) | 859,103 | 1,059,856 |
| Cash at beginning of period | 2,560,666 | 851,992 | - |
| Cash at end of period | $ 1,059,856 | $ 1,711,095 | $ 1,059,856 |
| Cash paid for: | | | |
| Income tax | $ - | $ - | $ - |
| Interest | 429 | - | 429 |

| | | | |
|---|---|---|---|
| NON-CASH TRANSACTIONS | | | |
| Issuance of common stock for purchase of Opexa | $ - | $ - | $ 23,750,000 |
| Issuance of common stock to Sportan shareholders | - | - | 147,733 |
| Issuance of common stock for University of Chicago license | - | - | 2,295,459 |
| Issuance of common stock for accrued interest | - | - | 525,513 |
| Issuance of common stock for accounts payable | 180,000 | | 180,000 |
| Conversion of notes payable to common stock | - | 34,751 | 6,407,980 |
| Conversion of accrued liabilities to common stock | - | 17,176 | 17,176 |
| Conversion of accounts payable to note payable | - | - | 93,364 |
| Discount on convertible notes relating to: | | | |
| - warrants | - | 1,433,108 | 3,309,790 |
| - beneficial conversion feature | - | 831,945 | 1,715,973 |
| - stock attached to notes | - | 999,074 | 1,287,440 |
| Fair value of derivative instrument | - | - | 10,658,496 |

## NOTE 1 - BASIS OF PRESENTATION

The accompanying unaudited interim financial statements of PharmaFrontiers Corp., ("Pharma"), (a development stage company), have been prepared in accordance with accounting principles generally accepted in the United States of America and the rules of the Securities and Exchange Commission ("SEC"), and should be read in conjunction with the audited financial statements and notes thereto contained in Pharma's latest Annual Report filed with the SEC on Form 10-KSB. In the opinion of management, all adjustments, consisting of normal recurring adjustments, necessary for a fair presentation of financial position and the results of operations for the interim periods presented have been reflected herein. The results of operations for interim periods are not necessarily indicative of the results to be expected for the full year. Notes to the financial statements that would substantially duplicate the disclosure contained in the audited financial statements for the most recent fiscal year, 2005, as reported in Form 10-KSB, have been omitted.

Restatements for the three months ended March 31, 2006 were made. See Note 6 for details.

## NOTE 2 - STOCK BASED COMPENSATION

Effective January 1, 2006, Pharma began recording compensation expense associated with stock options and other forms of equity compensation in accordance with Statement of Financial Accounting Standards ("SFAS") No. 123R, *Share-Based Payment*, as interpreted by SEC Staff Accounting Bulletin No. 107. Prior to January 1, 2006, Pharma had accounted for stock options according to the provisions of Accounting Principles Board ("APB") Opinion No. 25, *Accounting for Stock Issued to Employees*, and related interpretations, and therefore no related compensation expense was recorded for awards granted with no intrinsic value. Pharma adopted the modified prospective transition method provided for under SFAS No. 123R, and, consequently, have not retroactively adjusted results from prior periods. Under this transition method, compensation cost associated with stock options recognized in the first quarter of Fiscal 2006 includes the quarterly amortization related to the remaining unvested portion of all stock option awards granted prior to January 1, 2006, based on the grant date fair value estimated in accordance with the original provisions of SFAS No. 123.

The following table illustrates the effect on net loss and net loss per share if Pharma had applied the fair value provisions of FASB Statement No. 123, to stock-based employee compensation:

| | **(Restated) Three Months Ended March 31, 2006** | **Three Months Ended March 31, 2005** | **(Restated) Inception through 2006** |
|---|---|---|---|
| Net loss as reported | $ (1,970,310) | $ (3,747,304) | $ (22,234,333) |
| Add: stock based compensation determined | | | |
| Under intrinsic value based method | - | 355,400 | 2,611,074 |
| Less: stock based compensation | | | |
| determined under fair value based method | - | (453,024) | (4,417,377) |
| Pro forma net loss | $ (1,970,310) | $ (3,844,928) | $ (24,040,636) |
| Basic and diluted | | | |
| Net loss per common share: | | | |
| As reported | $ (0.10) | $ (0.37) | N/A |
| Pro forma | $ (0.10) | $ (0.38) | N/A |

**NOTE 3 - INTANGIBLES**

***Rheumatoid Arthritis License***

On January 4, 2006, Pharma entered in an agreement with the Shanghai Institute for Biological Science, China Academy of Science of the People's Republic of China whereby it acquired an exclusive worldwide license for the intellectual property rights and research results of an autologous T cell vaccine for rheumatoid arthritis. In exchange for a payment and an agreed running royalty from the sale of commercialized products, Pharma receives all information and data related to all clinical trials on all patient controls and patients with rheumatoid arthritis with the T cell vaccine. This includes all clinical, cell procurement and manufacturing protocols, complete patient data sheets, all laboratory materials, methods and results and manufacturing records and documents and any other data related to the intellectual property. The first payment under the license occurred in April 2006 upon the delivery of materials pursuant to the terms of the licensing agreement.

**NOTE 4 - EQUITY**

In March 2006, 347,490 shares of common stock were issued in settlement of an outstanding accounts payable in the amount of $180,000.

**NOTE 5 - OPTIONS AND WARRANTS**

There were no options or warrants issued during the first quarter.

In connection with the bridge note exchange and a private placement offerings in June and July of 2005, three separate types of warrants, known as Series A, Series B, and Series C, to purchase the common stock of Pharma were issued to investors. On February 17, 2006 the Series A warrants to exercise 10,411,400 shares of common stock expired.

**NOTE 6 - DERIVATIVE INSTRUMENTS AND RESTATEMENT**

In 2006, we evaluated the application of SFAS 133 and EITF 00-19 for all of our financial instruments and identified the following financial instruments as derivatives:

(1) Series A Warrants issued in conjunction with the bridge note exchange and private placement offerings in June and July 2005 (which expired on February 17, 2006)
(2) Series B Warrants issued in conjunction with the bridge note exchange and private placement offerings in June and July 2005
(3) Series C Warrants issued in conjunction with the bridge note exchange and private placement offerings in June and July 2005

As a result, we report the value of these derivatives as current liabilities on our balance sheet and report changes in the value of these derivatives as non-operating gains or losses on our statements of operations. The value of the derivatives is required to be remeasured on a quarterly basis, and is based on the Black Scholes Pricing Model.

Variables used in the Black-Scholes option-pricing model include (1) 4.08% to 4.35% risk-free interest rate, (2) expected warrant life is the actual remaining life of the warrants as of each period end, (3) expected volatility is from 30% to 475% and (4) zero expected dividends.

The impact of the application of SFAS 133 and EITF 00-19 on the balance sheet and statements of operations as of and for the three months ended March 31, 2006 was as follows:

| | As of 12/31/2005 | As of 3/31/2006 | Three months ended 3/31/2006 |
|---|---|---|---|
| Series A Warrants | $ - | $ - | $ - |
| Series B Warrants | 264,957 | 284,312 | (19,355) |
| Series C Warrants | 6,496,697 | 6,223,202 | 273,495 |
| Totals | $ 6,761,654 | $ 6,507,515 | $ 254,140 |

In June 2006, we determined that certain warrants to purchase our common stock should be separately accounted for as liabilities. We had not classified these derivative liabilities as such in our previously issued financial statements. In order to reflect these changes, we restated our financial statements for the three months ended March 31, 2006 to record the fair value of these warrants on our balance sheet as a liability and record changes in the values of these derivatives in our consolidated statement of operations as unrealized "Gain (loss) on derivative liabilities."

The aggregate balance sheet amount shown for these derivative liabilities decreased from $6,761,654 on December 31, 2005 to $6,507,515 on March 31, 2006, resulting in a gain of $254,140 in the statements of operations for the three months ended March 31, 2006. This resulted in total liabilities being uderstated by $6,507,515 and net loss being overstated by $254,140.

**NOTE 7 - SUBSEQUENT EVENTS**

***Private Placement Offering***

On April 13, 2006 , Pharma closed a financing transaction in which Pharma issued 46,000,000 shares of its common stock and warrants to purchase 23,000,000 shares of Pharma's common stock for $23,000,000 to certain institutional and accredited investors (the "Transaction"). In connection with the Transaction, Pharma agreed to hold a shareholder's meeting by June 30, 2006 to vote on a proposal to effect a 1 for 10 reverse split of Pharma common stock that will not reduce the number of shares of common stock Pharma is authorized to issue.

The warrants expire in five years, and are exercisable at $0.65 per share only after Pharma effects a 1 for 10 reverse split. The warrants contain standard adjustment provisions for stock splits, distributions, reorganizations, mergers and consolidations. Pharma has the right to call the warrants one year from the effective date of a resale registration statement if the closing bid price per share of Pharma's common stock equals or exceeds $1.30 for twenty consecutive trading days in which the daily average trading volume of the common stock is at least 200,000 shares. Additionally, if the resale registration statement is not effective for any period after April 13, 2007, the warrant holders may exercise their warrants on a cashless basis during the period the resale registration statement is not effective.

Pharma has agreed to file a registration statement with the Securities and Exchange Commission by May 13, 2006 in order to register the resale of the shares of common stock issued pursuant to the Transaction and the shares issuable upon exercise of the warrants. If Pharma fails to meet this deadline, if the registration statement is not declared effective prior July 12, 2006 or August 11, 2006 (if the Securities and Exchange Commission comments on the registration statement), or if the registration statement ceases to remain effective, Pharma has agreed to pay the investors liquidated damages of 1.5% of the amount invested per 30 day period during such failure, up to 24% of the aggregate amount invested.

In connection with the Transaction, Pharma paid commissions and fees to their placement agent, MDB Capital Group LLC ("MDB"), and another broker dealer for services in connection with the Transaction an aggregate of $1,754,100 and issued MDB and another broker dealer three year warrants to purchase an aggregate of 2,137,200 shares of common stock at an exercise price of $0.50 per share, exercisable after Pharma effects a 1 for 10 reverse split. These warrants are not callable, have a cashless exercise option, and have standard adjustment provisions. Pharma agreed to register the resale of the shares underlying the warrants issued to MDB and the other broker dealer.

Pharma intends to conduct an appropriate accounting analysis consistent with general accepted accounting principles, including SFAS 133 and EITF 00-19, with respect to the securities issued in the Transaction, which may result in a portion of the proceeds being classified as a derivative liability. Any such derivative liability would be measured at each reporting date at fair value with the any change in fair value resulting in a gain or loss in Pharma's statement of expenses.. Any such derivative liability initially will be reflected in Pharma's financial statements for the fiscal quarter ending on June 30, 2006.

Additionally, the Transaction triggered certain adjustment provisions contained in Pharma's series B warrants and series C warrants issued in June and July 2005. Pursuant to the adjustment provisions, the number of shares issuable upon exercise of the Series B warrants increased to 6,037,365 shares from 4,163,701 shares and the e xercise price was reduced to $2.00 from $2.90 per share. The number of shares issuable upon exercise of the Series C warrants increased to 11,105,477 shares from 8,329,108 shares and the e xercise price was reduced to $3.00 from $4.00 per share.

Pursuant to the Transaction, the new investors in the aggregate will own approximately 69% of the total outstanding shares of Pharma's common stock, without giving effect to the warrants.

***University of Chicago License***

On April 13, 2006, Pharma amended that certain Amended and Restated License Agreement, dated December 30, 2004, with the University of Chicago with respect to certain payment obligations of Pharma, as follows: (i) an April 30, 2006 $1,500,000 cash payment obligation was extended until October 31, 2006; and (ii) the obligation to issue 216,228 shares of Pharma's common stock issuable upon the close of the Transaction was extended until October 31, 2006.

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors
PharmaFrontiers Corp.
(a development stage company)
The Woodlands, Texas

We have audited the accompanying consolidated balance sheet of PharmaFrontiers Corp., ("Pharma") (a development stage company), as of December 31, 2005 and the related consolidated statements of expenses, changes in stockholders' equity and cash flows for the two years ended December 31, 2005 and the period from January 22, 2003 (Inception) through December 31, 2005. These consolidated financial statements are the responsibility of Pharma's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall consolidated 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 Pharma as of December 31, 2005 and the consolidated results of its operations and its cash flows for the periods described in conformity with accounting principles generally accepted in the United States of America.

The accompanying consolidated financial statements have been prepared assuming that Pharma will continue as a going concern. As discussed in Note 2 to the consolidated financial statements, Pharma has suffered recurring losses from operations, which raises substantial doubt about its ability to continue as a going concern. Management's plans regarding those matters are described in Note 2. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

As discussed in Note 15 to the financial statements, an error resulting in an understatement of liabilities and an overstatement of net loss in 2005 was discovered by management in 2006. Accordingly, adjustments have been made as of December 31, 2005, to correct the error.

MALONE & BAILEY, PC
www.malone-bailey.com
Houston, Texas

February 7, 2006,
except for Note 15
which is dated June 20, 2006

**PHARMAFRONTIERS CORP.**
**(a development stage company)**
**CONSOLIDATED BALANCE SHEET (RESTATED)**
**December 31, 2005**

**Assets**

| | | |
|---|---|---|
| Current assets: | | |
| Cash | $ | 2,560,666 |
| Other current assets | | 182,524 |
| Total current assets | | 2,743,190 |
| Intangible assets, net of $2,298,174 and $1,888,891 of accumulated amortization | | 26,130,441 |
| Property & equipment, net of $278,300 and $256,082 of accumulated depreciation | | 479,996 |
| Other assets | | 388,210 |
| Total assets | $ | 29,741,837 |

**Liabilities and Stockholder's Equity**

| | | |
|---|---|---|
| Current liabilities: | | |
| Accounts payable | $ | 689,467 |
| Accrued expenses | | 240,309 |
| Note payable | | 1,500,000 |
| Derivative liability | | 6,761,655 |
| Total current liabilities | | 9,191,431 |
| Commitments and contingencies | | - |
| Stockholder' equity: | | |
| Convertible preferred stock, no par value, 10,000,000 shares authorized, none issued and outstanding | | - |
| Common stock, $.05 par value, 100,000,000 shares authorized, 20,967,035 and 20,619,545 shares issued and outstanding | | 1,030,977 |
| Additional paid in capital | | 39,783,452 |
| Deficit accumulated during the development stage | | (20,264,023) |
| Total stockholders' equity | | 20,550,406 |
| Total liabilities and stockholders' equity | $ | 29,741,837 |

See accompanying summary of accounting policies
and notes to consolidated financial statements

**PHARMAFRONTIERS CORP.**
**(A Development Stage Company)**
**CONSOLIDATED STATEMENTS OF EXPENSES**
**Years ended December 31, 2005 and 2004 and the**
**Period from January 22, 2003 (Inception) to December 31, 2005**

| | (Restated) 2005 | 2004 | Inception through 2005 |
|---|---|---|---|
| General and administrative | $ 550,178 | $ 572,534 | $ 1,203,513 |
| Depreciation and amortization | 1,735,209 | 264,819 | 2,000,028 |
| Research and development | 9,892,253 | 2,465,634 | 12,357,887 |
| Loss on disposal of assets | 22,810 | 457,122 | 479,932 |
| Operating loss | (12,200,450) | (3,760,109) | (16,041,360) |
| Interest income | 81,930 | 5,992 | 87,922 |
| Other income | 28,174 | 2,379 | 30,553 |
| Gain on derivative liability | 3,896,841 | - | 3,896,841 |
| Interest expense | (7,323,851) | (868,926) | (8,237,979) |
| Net loss | $ (15,517,356) | $ (4,620,664) | $ (20,264,023) |
| Basic and diluted loss per share | $ (0.99) | $ (0.73) | N/A |
| Weighted average shares outstanding | 15,648,365 | $ 6,309,145 | N/A |

See accompanying summary of accounting policies
and notes to consolidated financial statements

**PHARMAFRONTIERS CORP.**
**(A Development Stage Company)**
**CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY (RESTATED)**
**January 22, 2003 (Inception) through December 31, 2005**

| | Common Stock | | Additional Paid in | Accumulated | |
|---|---|---|---|---|---|
| | Shares | Par | Capital | Deficit | Total |
| Shares issued for cash | 5,250,000 | 262,500 | ($261,500) | $ -- | $ 1,000 |
| Shares repurchased and cancelled | (1,706,250) | (85,313) | 84,988 | -- | (325) |
| Discount relating to: | | | | | |
| - beneficial conversion feature | -- | | 28,180 | -- | 28,180 |
| - warrants attached to debt | -- | | 28,180 | -- | 28,180 |
| Net loss | -- | -- | -- | (126,003) | (126,003) |
| Balances at December 31, 2003 | 3,543,750 | 177,187 | (120,152) | (126,003) | (68,968) |
| Shares issued for: | | | | | |
| - cash | 22,500 | 1,125 | 7,875 | -- | 9,000 |
| - services | 2,065,000 | 103,250 | 745,750 | -- | 849,000 |
| - license | 242,688 | 12,135 | 414,940 | -- | 427,075 |
| - reverse merger with Sportan | 997,399 | 49,870 | (197,603) | -- | (147,733) |
| - acquisition of Opexa | 2,500,000 | 125,000 | 23,625,000 | -- | 23,750,000 |
| - additional shares attached to convertible debt | 161,000 | 8,050 | 280,316 | -- | 288,366 |
| - conversion of convertible notes | 607,501 | 30,375 | 217,995 | -- | 248,370 |
| Shares cancelled | (80,000) | (4,000) | 4,000 | -- | -- |
| Discount relating to: | | | | | |
| - beneficial conversion feature | -- | | 855,849 | -- | 855,849 |
| - warrants attached to debt | -- | | 1,848,502 | -- | 1,848,502 |
| Option Expense | -- | | 123,333 | -- | 123,333 |
| Net loss | -- | -- | -- | (4,620,664) | (4,620,664) |
| Balances at December 31, 2004 | 10,059,838 | 502,992 | 27,805,805 | (4,746,667) | 23,562,130 |
| Shares issued for: | | | | | |
| - cash | 3,894,509 | 194,725 | 5,647,044 | -- | 5,841,769 |
| - convertible debt | 6,110,263 | 305,513 | 7,343,933 | -- | 7,649,446 |
| - debt | 23,000 | 1,150 | 159,850 | -- | 161,000 |
| - license | 291,935 | 14,597 | 1,853,787 | -- | 1,868,384 |
| - services | 240,000 | 12,000 | 1,000,400 | -- | 1,012,400 |

| | | | | | |
|---|---|---|---|---|---|
| Offering costs relating to | | | | | |
| equity financing | -- | -- | (495,552) | -- | (495,552) |
| Discount relating to: | | | 831,944 | | 831,944 |
| - beneficial conversion feature | -- | -- | 1,433,108 | -- | 1,433,108 |
| - warrants attached to debt | -- | -- | | -- | |
| Option expense | -- | -- | 2,487,741 | -- | 2,487,741 |
| Warrant expense | -- | -- | 2,373,888 | -- | 2,373,888 |
| Transition of warrants from equity instruments to liability instruments | -- | -- | (10,658,496) | | (10,658,496) |
| Net loss | -- | -- | -- | (15,517,356) | (15,517,356) |
| Balances at December 31, 2005 | $ 20,619,545 | $ 1,030,977 | $ 39,783,452 | ($20,264,023) | $ 20,550,406 |

See accompanying summary of accounting policies
and notes to consolidated financial statements

**PHARMAFRONTIERS CORP.**
**(A Development Stage Company)**
**CONSOLIDATED STATEMENTS OF CASH FLOWS (RESTATED)**
**Year ended December 31, 2005 and the Period from January 22, 2003 (Inception) through December 31, 2004 and 2005**

| | 2005 | 2004 | Inception through 2005 |
|---|---|---|---|
| Cash flows from operating activities | | | |
| Net loss | $ (15,517,356) | $ (4,620,664) | $ (20,264,023) |
| Adjustments to reconcile net loss to net cash used in operating activities | | | |
| Stock issued for services | 1,012,400 | 849,000 | 1,861,400 |
| Stock issued for debt in excess of principal | 109,070 | - | 109,070 |
| Amortization of discount on notes payable due to warrants and beneficial conversion feature | 5,516,638 | 753,812 | 6,313,205 |
| Amortization of intangible assets | 1,637,129 | 251,761 | 1,888,890 |
| Gain on derivative liability | (3,896,841) | - | (3,896,841) |
| Depreciation | 98,080 | 13,058 | 111,138 |
| Debt financing costs | 365,910 | - | 365,910 |
| Option and warrant expense | 4,861,629 | 123,333 | 4,984,962 |
| Loss on disposition of fixed assets | 22,810 | 457,122 | 479,932 |
| Changes in: | | | |
| Accounts payable | 26,360 | 58,670 | 85,167 |
| Prepaid expenses | (88,185) | (38,950) | (127,135) |
| Accrued expenses | 23655 | 23,822 | 54,981 |
| Other assets | (388,210) | - | (388,210) |
| Net cash used in operating activities | (6,216,911) | (2,129,036) | (8,421,554) |
| Cash flows from investing activities | | | |
| Purchase of licenses | - | (232,742) | (232,742) |
| Purchase of property & equipment | (258,903) | (173,004) | (431,907) |
| Net cash used in investing activities | (258,903) | (405,746) | (664,649) |
| Cash flows from financing activities | | | |
| Common stock sold for cash, net of offering costs | 5,346,217 | 9,000 | 5,356,217 |
| Common stock repurchased and canceled | - | - | (325) |
| Proceeds from debt | 2,896,885 | 3,382,706 | 6,354,591 |
| Repayments on notes payable | (58,614) | (5,000) | (63,614) |
| Net cash provided by financing activities | 8,184,488 | 3,386,706 | 11,646,869 |
| Net change in cash | 1,708,674 | 851,924 | 2,560,666 |
| Cash at beginning of period | 851,992 | 68 | - |
| Cash at end of period | $ 2,560,666 | $ 851,992 | $ 2,560,666 |

PHARMAFRONTIERS CORP.
(A Development Stage Company)
CONSOLIDATED STATEMENTS OF CASH FLOWS (RESTATED) (Continued)
Year ended December 31, 2005 and the Period from January 22, 2003
(Inception) through December 31, 2004 and 2005

| | | | |
|---|---|---|---|
| NON-CASH TRANSACTIONS | | | |
| Issuance of common stock for purchase of Opexa | $ - | $ 23,750,000 | $ 23,750,000 |
| Issuance of common stock to Sportan shareholders | - | 147,733 | 147,733 |
| Issuance of common stock for University of Chicago license | 1,868,384 | 427,075 | 2,295,459 |
| Issuance of common stock for accrued interest | 525,513 | - | 525,513 |
| Conversion of notes payable to common stock | 6,159,610 | 248,370 | 6,407,980 |
| Conversion of accrued liabilities to common stock | 17,176 | - | 17,176 |
| Conversion of accounts payable to note payable | - | 93,364 | 93,364 |
| Discount on convertible notes relating to: | | | |
| - warrants | 1,433,108 | 1,848,502 | 3,309,790 |
| - beneficial conversion feature | 831,944 | 855,849 | 1,715,973 |
| - stock attached to notes | 999,074 | 288,366 | 1,287,440 |
| Fair value of derivative instrument | 10,658,496 | - | 10,658,496 |

See accompanying summary of accounting policies
and notes to consolidated financial statements

**NOTE 1 - SUMMARY OF ACCOUNTING POLICIES**

PharmaFrontiers Corp. ( " Pharma " ) was incorporated in Texas on January 22, 2003 as a bio-pharmaceutical company engaged in developing autologous personalized cell therapies. During the development stage, Pharma acquired the worldwide license to technology developed at Argonne National Laboratory, a U.S. Department of Energy Laboratory Operated by the University of Chicago ( " Argonne " ). This is an exclusive license to a stem cell technology in which adult pluripotent stem cells are derived from monocytes obtained from the patient ' s own blood (the " License " ). A patent application was filed in November 2003, with the United States Patent and Trade Office regarding the technology involved in the License.

On October 7, 2004 Pharma entered into an agreement to acquire all of the outstanding stock of Opexa Pharmaceuticals, Inc. ( " Opexa " ). The agreement closed on November 5, 2004. A total of 2,500,000 shares of Pharma ' s common stock were exchanged for all of the outstanding stock of Opexa. 2,250,000 shares was issued to Opexa shareholders in December 2004 and the balance of 250,000 shares, that had been held in escrow for the prerequisite one year period, was issued in November 2005.The acquisition was accounted for under the purchase method, where all of Opexa ' s assets are restated to their fair market value on the acquisition date, which approximated book value. The 2,500,000 shares of Pharma were valued at $23,750,000 or $9.50 per share, which represents their current value at the time. See Note 12 for details.

Opexa holds rights to technology to diagnose and treat multiple sclerosis through modified autoreactive T cells and is currently in FDA Phase I/II human dose ranging clinical trials to evaluate its safety and effectiveness in treating multiple sclerosis.

Basis of presentation. The consolidated financial statements include the accounts of Pharma and its wholly-owned subsidiary, Opexa. Significant inter-company accounts and transactions have been eliminated.

Reclassifications. Certain amounts in the 2004 consolidated financial statements have been reclassified to conform to the 2005 consolidated financial statement presentation.

Use of Estimates in Financial Statement Preparation. The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash and cash equivalents. For purposes of the statements of cash flows, cash equivalents include all highly liquid investments with original maturities of three months or less.

Long-lived Assets. Property and equipment are stated on the basis of historical cost less accumulated depreciation. Depreciation is provided using the straight-line method over the estimated useful lives of the assets. Major renewals and improvements are capitalized, while minor replacements, maintenance and repairs are charged to current operations.

Impairment losses are recorded on long-lived assets used in operations when indicators of impairment are present and the undiscounted cash flows estimated to be generated by those assets are less than the assets ' carrying amount.

Income Taxes. Income tax expense is based on reported earnings before income taxes. Deferred income taxes reflect the impact of temporary differences between assets and liabilities recognized for consolidated financial reporting purposes and such amounts recognized for tax purposes, and are measured by applying enacted tax rates in effect in years in which the differences are expected to reverse.

Stock-Based Compensation. Pharma accounts for stock-based compensation under the intrinsic value method. Under this method, Pharma recognizes no compensation expense for stock options granted when the number of underlying shares is known and exercise price of the option is greater than or equal to the fair market value of the stock on the date of grant. The following table illustrates the effect on net loss and net loss per share if Pharma had applied the fair value provisions of FASB Statement No. 123, Accounting for Stock-Based Compensation, to stock-based employee compensation:

| | 2005 | 2004 | Inception through 2005 |
|---|---|---|---|
| Net loss as reported | $ (15,517,356) | $ (4,620,664) | $ (20,264,023) |
| Add: stock based compensation determined Under intrinsic value based method | 2,487,741 | 123,333 | 2,611,074 |
| Less: stock based compensation determined under fair value based method | (4,264,013) | (153,364) | (4,417,377) |
| Pro forma net loss | $ (17,293,628) | $ (4,650,695) | $ (22,070,326) |
| Basic and diluted Net loss per common share: | | | |
| As reported | $ (0.99) | $ (.73) | N/A |
| Pro forma | $ (1.11) | $ (.74) | N/A |

The weighted average fair value of the stock options granted during 2004 was $3.09. Variables used in the Black-Scholes option-pricing model include (1) 2% risk-free interest rate, (2) expected option life is the actual remaining life of the options as of each year end, (3) expected volatility is from 0.1% to 796.30% and (4) zero expected dividends.

The weighted average fair value of the stock options granted during 2005 was $2.49. Variables used in the Black-Scholes option-pricing model include (1) 2% risk-free interest rate, (2) expected option life is the actual remaining life of the options as of each year end, (3) expected volatility is 175.40% and (4) zero expected dividends.

The basic net loss per common share is computed by dividing the net loss by the weighted average number of common shares outstanding. Diluted net loss per common share is computed by dividing the net income adjusted on an "as if converted" basis, by the weighted average number of common shares outstanding plus potential dilutive securities. Basic and diluted loss per share is the same due to potential dilutive securities had an anti-dilutive effect and were not included in the calculation of diluted net income per common share.

Research and development. Research and development expenses include salaries, related employee expenses, consulting fees, facility costs, and laboratory costs. All costs for research and development activities are expensed as incurred. Pharma expenses the costs of licenses of patents and the prosecution of patents until the issuance of such patents and the commercialization of related products is reasonably assured.

Accounting for Derivative Instruments. Statement of Financial Accounting Standard (“SFAS”) No. 133, “Accounting for Derivative Instruments and Hedging Activities,” as amended, requires all derivatives to be recorded on the balance sheet at fair value. Our derivatives are separately valued and accounted for on our balance sheet. Fair values for securities traded in the open market and derivatives are based on quoted market prices. Where market prices are not readily available, fair values are determined using market based pricing models incorporating readily observable market data and requiring judgment and estimates.

The pricing model we use for determining fair values of our derivatives is the Black Scholes Pricing Model. Valuations derived from this model are subject to ongoing internal and external verification and review. The model uses market-sourced inputs such as interest rates, exchange rates and option volatilities. Selection of these inputs involves management's judgment and may impact net income.

In September 2000, the Emerging Issues Task Force ("EITF") issued EITF 00-19, "Accounting for Derivative Financial Instruments Indexed to and Potentially Settled in, a Company's Own Stock," ("EITF 00-19") which requires freestanding contracts that are settled in a company's own stock, including common stock warrants, to be designated as an equity instrument, asset or a liability. Under the provisions of EITF 00-19, a contract designated as an asset or a liability must be carried at fair value on a company's balance sheet, with any changes in fair value recorded in the company's results of operations. A contract designated as an equity instrument must be included within equity, and no fair value adjustments are required.

The EITF recently deliberated the impact of liquidated damages clauses in registration rights agreements and the effect on accounting and classification of instruments subject to the scope of EITF 00-19 in EITF 05-04 *The Effect of a Liquidated Damages Clause on a Freestanding Financial Instrument Subject to Issue No. 00-19.* The EITF has not reached a consensus on this issue and has deferred deliberation until the FASB addresses certain questions which could impact a conclusion on this issue. Specifically, EITF 05-04 presents alternative views on whether the liquidated damages provisions in registration rights agreements should be combined with or treated separately from the associated financial instrument. We view the registration rights agreement and the financial instrument as one combined freestanding instrument. If the EITF were to adopt the view that the registration rights agreement should be viewed as a separate instrument from the financial instrument, we may have to account for additional derivatives.

Restatement of Financial Statements to Reflect Derivative Accounting. The consolidated financial statements for the year ended December 31, 2005 included in this Annual Report have been restated to reflect additional non-operating gains related to the classification of and accounting for warrants issued by Pharma associated with the bridge note exchange and private placement offerings in June 2005 and July 2005 .

Recently Issued Accounting Pronouncements. In December 2004, the FASB issued SFAS No.123R, “Accounting for Stock-Based Compensation.” SFAS No.123R establishes standards for the accounting for transactions in which an entity exchanges its equity instruments for goods or services. This Statement focuses primarily on accounting for transactions in which an entity obtains employee services in share-based payment transactions. SFAS No.123R requires that the fair value of such equity instruments be recognized as expense in the historical financial statements as services are performed. Prior to SFAS No.123R, only certain pro forma disclosures of fair value were required. SFAS No.123R shall be effective for small business issuers as of the beginning of the first interim or annual reporting period that begins after December 15, 2005. While Pharma has issued options to employees recently, the adoption of this new accounting pronouncement is not expected to have a material impact on the consolidated financial statements of Pharma during the calendar year 2006.

Pharma does not expect the adoption of any other recently issued accounting pronouncements to have a significant impact on their consolidated financial position, results of operations or cash flow.

**NOTE 2 - GOING CONCERN**

As shown in the accompanying consolidated financial statements, Pharma incurred recurring net losses of $15,517,356 and $4,620,664 in 2005 and 2004, respectively, and has an accumulated deficit of $20,264,023 as of December 31, 2005. These conditions raise substantial doubt as to Pharma’s ability to continue as a going concern. Management is trying to raise additional capital through sales of convertible debt and equity. The consolidated financial statements do not include any adjustments that might be necessary if Pharma is unable to continue as a going concern.

**NOTE 3 - LICENSE AGREEMENT**

In February 2004, Pharma entered into an agreement with the University of Chicago ("University") for the worldwide license to technology developed at Argonne National Laboratory, a U.S. Department of Energy Laboratory Operated by the University. In consideration for the license, Pharma paid the University $57,742 and agreed to issue 375,375 shares of its common stock. 187,688 shares valued at $75,075 were issued on February 20, 2004. In December 2004, the License Agreement was amended granting Pharma an exclusive, non-transferable worldwide license to the University's stem cell technology. In consideration for the amendment, Pharma paid the University an additional $175,000, issued the University 55,000 shares of common stock valued at $352,000, bringing the total ownership of Pharma by the University to 242,688 shares, agreed to pay the University $1,500,000 on the earlier of October 30, 2005 or upon the closing of a Pharma financing where proceeds are greater than $10 million and agreed to issue the University shares of Pharma common stock, including the shares already issued, equal to 2.6% of the total outstanding number of shares after conversion of the 15% exchangeable convertible subordinated promissory notes upon the later of the First financing or November 30, 2005 and after issuance of any and all equity in the form of stock at the close of the first Financing.

In June 2005, 274,836 shares of common stock were issued to the University of Chicago per the terms of a license agreement. These shares were recorded at $867,064.

In August 2005, 17,099 shares of common stock were issued to the University of Chicago per the terms of a license agreement. These shares were recorded at $109,434.

By amendment dated October 31, 2005 Pharma and the University agreed to extend the date upon which the $1,500,000 to April 30, 2006.

In June of 2004, Pharma paid $50,000 to The University of Texas MD Anderson Cancer Center for an option to negotiate a licensing agreement for the use of peripheral blood stem cells for cardiac regeneration. This option to negotiate the licensing agreement expired on September 21, 2004 and the non-refundable fee of $50,000 was written off during 2004.

**NOTE 4 - INTANGIBLE ASSETS**

Intangible assets consisted of the following at December 31, 2005:

| Description | Life | Amount |
|---|---|---|
| University of Chicago license (see Note 3) | 19 years | $ 4,028,204 |
| Opexa intangible group (see Note 12) | 16 years | 23,991,128 |
| Subtotal | | 28,019,332 |
| Less: accumulated amortization | | (1,888,891) |
| Intangible assets, net | | $ 26,130,441 |

Amortization expense totaled $1,637,129 and $251,761 in fiscal 2005 and 2004, respectively.

**NOTE 5 - PROPERTY AND EQUIPMENT**

Property and equipment consisted of the following at December 31, 2005:

| Description | Life | Amount |
|---|---|---|
| Computer equipment | 3 years | $ 77,730 |
| Office furniture and equipment | 3-5 years | 145,921 |
| Laboratory equipment | 5-10 years | 512,427 |
| Subtotal | | 736,078 |
| Less: accumulated depreciation | | (256,082) |
| Property and equipment, net | | $ 479,996 |

Depreciation expense totaled $98,080 and $13,058 in fiscal 2005 and 2004, respectively.

**NOTE 6 - INCOME TAXES**

Pharma uses the liability method, where deferred tax assets and liabilities are determined based on the expected future tax consequences of temporary differences between the carrying amounts of assets and liabilities for financial and income tax reporting purposes. During fiscal 2005 and 2004, Pharma incurred net losses and, therefore, has no tax liability. The net deferred tax asset generated by the loss carry-forward has been fully reserved. The cumulative net operating loss carry-forward is approximately $12,000,000 at December 31, 2005, and will expire in the years 2024 through 2025.

At December 31, 2005, deferred tax assets consisted of the following:

| | |
|---|---|
| Deferred tax assets | |
| Net operating losses | $ 4,080,000 |
| Less: valuation allowance | (4,080,000) |
| Net deferred tax assets | $ - |

**NOTE 7 - THIRD PARTY CONVERTIBLE NOTES**

Between September 2004 and February 2005, Pharma issued convertible notes to investors totaling $6,124,859. In March 2005, 451,688 shares of common stock with a relative fair value of $999,074 were issued to note holders as their additional shares for their subscription investment in Pharma. In June 2005 a total of $6,650,372 comprised of the principal of the notes of $6,124,859 and accumulated interest of $525,513, which accrued at a rate of 15% per annum, was exchanged for 4,433,598 units at $1.50 per share. Each unit is comprised of one share of common stock and three separate types of warrants to purchase a total of 2.75 shares of common stock as stated below. In addition, 1,224,977 shares of Common Stock were issued in consideration for the surrender of the rights to the Bridge Warrants held by the note holders. All of the Bridge Notes and Bridge Warrants were exchanged so that none are now outstanding.

- Warrants: In connection with the bridge note exchange and private placement offerings in June and July three separate types of warrants to purchase a total of 2.75 shares of common stock were issued as follows: (i) a Series A Warrant which expired on February 17, 2006; (ii) a Series B Warrant for one-half of a share with an exercise price of $2.90 which expires on October 17, 2006; (iii) and a Series C Warrant for one share with an exercise price of $4.00 that expires on May 25, 2010.

Pharma analyzed the convertible notes and the warrants for derivative accounting consideration under SFAS 133 and EITF 00-19. Pharma determined the embedded conversion option in the convertible notes met the criteria for classification in stockholders equity under SFAS 133 and EITF 00-19. Therefore, derivative accounting was not applicable for these convertible notes payable. See Note 14 for a discussion of the accounting for the warrants.

**NOTE 8 - NOTE PAYABLE**

Note payable consists of the following:

| | |
|---|---|
| Note payable to the University of Chicago; no interest; due earlier of Pharma raising $10,000,000 in an Equity Financing or April 30, 2006; secured by license (See Note 3 for details) | $1,500,000 |

**NOTE 9 - COMMITMENTS AND CONTINGENCIES**

After purchasing Opexa, Pharma assumed an eighteen-month operating lease from Opexa for a research facility. The lease commenced in June 2003 and was due to expire in November 2004. Pharma extended the lease initially until March 31, 2005 and extended it again until September 30, 2005. Pharma terminated the lease on October 7, 2005 and entered into a ten-year lease with a new landlord which commenced on October 1, 2005.

Future minimum lease payments under the non-cancellable operating lease are $72,474 for 2006, $117,774 for 2007, $137,196 for 2008, $139,782 for 2009, $147,540 for 2010 and $731,883 for thereafter

Rent expense for 2005 was $178,963 and $389,300 for 2004.

**NOTE 10 - EQUITY**

During 2003, Pharma sold 5,250,000 shares of common stock for $1,000.

In April 2003, 1,706,250 shares were reacquired for $325 and canceled.

Additional contributions to capital of $56,360 resulted from the discounted value to notes payable due to warrants and beneficial conversion features attached to convertible notes was issued in 2003.

During 2004, 22,500 shares of common stock were sold for $9,000.

During 2004, 2,065,000 shares of common stock valued at their then fair value of $849,000 were issued to Pharma’s employees and consultants for their services.

In February 2004, 187,688 shares of common stock valued at their then fair value of $75,075 were issued to the University of Chicago per the terms of a license agreement. In December 2004, 55,000 shares of common stock valued at their then fair value of $352,000 were issued to the University of Chicago per the terms of an amended license agreement. See Note 3 for details.

In June 2004, 997,399 shares of common stock were issued for net liabilities of $147,733 to Sportan’s shareholders for the reverse merger with Sportan. See Note 14 for details.

In November 2004, 2,500,000 shares of common stock valued at their then fair value of $23,750,000 were issued to 30 accredited investors in connection with the acquisition of Opexa, of which 2,250,000 shares were issued immediately and the balance of 250,000 shares held in escrow were issued in November 2005. See Note 12 for details.

In December 2004, 161,000 shares of common stock with a relative fair value of $288,366 were issued to note holders as their additional shares for their subscription investment in Pharma.

During 2004, 607,501 shares of common stock were issued to note holders for the conversion of $248,370 of principal and interest from convertible notes.

In November 2004, 80,000 shares of common stock were cancelled pursuant to the terms of an employment separation agreement.

During 2004, there were additional contributions to capital of $2,704,351 relating to the discounted value to notes payable from warrants, beneficial conversion features attached to convertible notes.

Employee stock option expense was $123,333 in 2004.

In June 2005, Pharma sold 3,387,217 shares of common stock with 9,314,868 warrants for $5,080,826. The warrants have exercise prices ranging from $2 to $4 and expire in seven months to four years. The relative fair value of the common stock is $886,913 and the relative fair value of the warrants is $4,198,913. Offering costs of $434,262 related to shares issued were charged to additional paid in capital.

In July 2005, Pharma sold 507,292 shares of common stock with 1,395,053 warrants for $760,943. The warrants have exercise prices ranging from $2 to $4 and expire in seven months to four years. The relative fair value of the common stock is $216,801 and the relative fair value of the warrants is $544,137. Offering costs of $61,290 related to shares issued were charged to additional paid in capital.

In March 2005, 451,688 shares of common stock with a relative fair value of $999,074 were issued to note holders as their additional shares for their subscription investment in Pharma.

In June 2005, 5,658,575 shares of common stock were issued to note holders for the conversion of $6,124,859 of principal and $525,513 interest from convertible notes.

During February 2005, 23,000 shares of common stock valued at their fair value of $161,000 were issued to note holders for the conversion of $51,930 of principal and interest from the notes.

In June 2005, 274,836 shares of common stock were issued to the University of Chicago per the terms of a license agreement. These shares were recorded at $1,758,950.

In August 2005, 17,099 shares of common stock were issued to the University of Chicago per the terms of a license agreement. These shares were recorded at $109,434.

During 2005, 240,000 shares of common stock valued at their fair value of $1,012,400 were issued to Pharma’s consultants for their services.

During 2005, offering costs of $495,552 related to the equity financing were charged to additional paid in capital.

During 2005, there were additional contributions to capital of $2,265,052 relating to the discounted value to notes payable from warrants, beneficial conversion features attached to convertible notes.

Employee stock option expense was $2,487,741 in 2005.

Warrant expense was $2,373,888 in 2005.

**NOTE 11 - STOCK OPTIONS AND WARRANTS**

In 2004 Pharma adopted the 2004 Stock Option Plan (“the Plan”). The Plan provides for the granting of stock options to employees and consultants of Pharma.

Options granted under the Plan may be either incentive stock options or nonqualified stock options. Incentive stock options (“ISO”) may be granted only to Pharma employees (including officers and directors who are also employees). Nonqualified stock options (“NSO”) may be granted to Pharma employees and consultants. The Board of Directors has discretion to determine the number, term, exercise price and vesting of all grants.

During 2003, 150,000 warrants were granted to investors related to the convertible notes.

During 2004, 965,000 options were granted to employees, 200,000 warrants were granted to consultants and 1,427,993 warrants were granted to investors related to the convertible notes.

Stock Options:

In January 2005, options to purchase 192,000 shares of Common Stock were issued to several employees at an exercise price of $3.00 per share. One third of the options vest on the first anniversary date, one third of the options vests on the second anniversary date, and the remaining one third vests on the third anniversary date. These options have an intrinsic value of $785,800, of which $261,933 has been expensed during 2005.

In April 2005, options to purchase 12,500 shares of Common Stock were issued to three Opexa employees at an exercise price of $3.00 per share. One third of the options vest on the first anniversary date, one third of the options vests on the second anniversary date, and the remaining one third vests on the third anniversary date. These options have an intrinsic value of $14,925, of which $4,975 has been expensed during 2005.

In June 2005, options to purchase 30,000 shares of Common Stock were issued to two employees at an exercise price of $3.00 per share, of which options vested immediately. These options have no intrinsic value due to exercise price exceeded the market price at the date of the grant.

In August 2005, options to purchase 20,000 shares of Common Stock were issued to an employee at an exercise price of $1.14 per share. One third of the options vested immediately, one third of the options vest on the first anniversary date, and the remaining one third vests on the second anniversary date. These options have no intrinsic value due to exercise price exceeded the market price at the date of the grant.

In December 2005, options to purchase 376,000 shares of Common Stock were issued to fifteen Opexa employees at an exercise price of $0.70 per share. One fourth of the options vest on the first anniversary date, one fourth of the options vests on the second anniversary date, one fourth of the options vests on the third anniversary date, and the remaining one fourth vests on the fourth anniversary date. These options have no intrinsic value due to exercise price equaled the market price at the date of the grant.

In 2005, 41,667 options previously granted were forfeited.

Consultant warrants:

In January 2005, warrants to purchase 25,000 shares of Common Stock were issued to a consultant at an exercise price of $3.00 per share of which one third of the warrants vest on the first anniversary date, one third of the warrants vests on the second anniversary date, and the remaining one third of warrants vests on the third anniversary date. These warrants have a fair value of $183,033, of which $61,011 has been expensed during 2005.

In April 2005, warrants to purchase 100,000 shares of Common Stock were issued to a consultant at an exercise price of $3.00 per share of which 40,000 warrants vested immediately, and the remaining 60,000 warrants vest at the rate of 2,500 warrants per month for twenty-four months. These warrants have a fair value of $417,812, of which $261,133 has been expensed during 2005.

In April 2005, warrants to purchase 20,000 shares of Common Stock were issued to a consultant at an exercise price of $3.00 per share of which one third of the warrants vest on the first anniversary date, one third of the warrants vests on the second anniversary date, and the remaining one third of warrants vests on the third anniversary date. These warrants have a fair value of $83,562, of which $27,854 has been expensed during 2005.

In June 2005, warrants to purchase 175,000 shares of Common Stock were issued to four consultants at an exercise price of $4.00 per share. One third of the warrants vested immediately, one third of the warrants vest on the first anniversary date, and the remaining one third of the warrants vests on the second anniversary date. These warrants have a fair value of $467,120, of which $84,813 has been expensed during 2005.

In July 2005, warrants to purchase 8,100 shares of Common Stock were issued to a consultant at an exercise price of $1.50 per share, of which warrants vested immediately. These warrants have a fair value of $21,150, of which $21,105 has been expensed during 2005.

In July 2005, warrants to purchase 460,846 shares of Common Stock were issued to several brokerage firms as the offering costs and commissions for Pharma ’ s financing activities at an exercise price of $1.50 per share. These warrants have a fair value of $2,197,162 and vest immediately.

In August 2005, warrants to purchase 200,000 shares of Common Stock were issued to a consultant at an exercise price of $1.19 per share. The warrants vest at a future date at such time that certain pre-determined events occur. These warrants have a fair value of $175,484.

In September 2005, warrants to purchase 15,000 shares of Common Stock were granted to a consultant at an exercise price of $1.19 per share of which warrants vested immediately. These warrants have a fair value of $13,161, of which $13,161 has been expensed during 2005.

In October 2005, warrants to purchase 167,500 shares of Common Stock were issued to four independent directors at an exercise price of $1.15 per share. One third of the warrants vested immediately, one third of the warrants vest on the first anniversary date, and the remaining one third vests on the second anniversary date. These warrants have a fair value of $191,658, of which $53,397 has been expensed during 2005.

In 2005, 99,134 warrants previously granted were expired.

Investor warrants:

During first quarter of 2005, 965,628 warrants were granted to investors related to the convertible notes.

In connection with the bridge note exchange and private placement offerings in June and July, 2,543,621 warrants granted in prior years and early 2005 were cancelled and three separate types of warrants to purchase a total of 2.75 shares of common stock were issued as follows: (i) 10,411,400 units of Series A Warrant for 1.25 shares with an exercise price of $2.00 which expires on February 17, 2006; (ii) 4,163,701 units of Series B Warrant for one-half of a share with an exercise price of $2.90 which expires on October 17, 2006; (iii) and 8,329,108 units of Series C Warrant for one share with an exercise price of $4.00 that expires on May 25, 2010.

Summary information regarding options is as follows:

| | Options | Weighted Average Exercise Price | Warrants | Weighted Average Exercise Price |
|---|---|---|---|---|
| Year ended December 31, 2003: | | | | |
| Granted | - | $ - | 150,000 | $ .10 |
| Outstanding at December 31, 2003 | - | - | 150,000 | .10 |
| Year ended December 31, 2004: | | | | |
| Granted | 965,000 | 3.17 | 1,627,993 | 2.23 |
| Outstanding at December 31, 2004 | 965,000 | 3.17 | 1,777,993 | 2.24 |
| Year ended December 31, 2005: | | | | |
| Granted | 630,500 | 1.57 | 25,041,284 | 2.86 |
| Forfeited and cancelled | (41,667) | 4.28 | (2,642,755) | 2.45 |
| Outstanding at December 31, 2005 | 1,553,833 | $ 2.49 | 24,176,522 | $ 2.85 |

Options and warrants outstanding and exercisable as of December 31, 2005:

| Exercise Price | Remaining Life | Options Outstanding | Options Exercisable | Warrants Outstanding | Warrants Exercisable |
|---|---|---|---|---|---|
| $5.00 | 3 - 4 years | 53,333 | 53,333 | 50,000 | - |
| 4.00 | 4 - 5 years | - | - | 8,504,108 | 8,362,441 |
| 3.00 | 4 - 5 years | 219,500 | 63,333 | 145,000 | 75,000 |
| 3.00 | 3 - 4 years | 885,000 | 395,000 | 50,000 | 16,667 |
| 2.90 | 0.83 years | - | - | 4,164,567 | 4,164,567 |
| 2.00 | 0.13 years | - | - | 10,411,400 | 10,411,400 |
| 1.50 | 4 - 5 years | - | - | 468,947 | 8,100 |
| 1.19 | 4 - 5 years | - | - | 215,000 | - |
| 1.15 | 4 - 5 years | - | - | 167,500 | - |
| 1.14 | 4 - 5 years | 20,000 | 6,667 | - | - |
| 0.70 | 9 - 10 years | 376,000 | - | - | - |
| | | 1,553,833 | 518,333 | 24,176,522 | 23,038,175 |

**NOTE 12 - PURCHASE OF OPEXA**

On October 7, 2004 Pharma entered into an agreement to acquire all of the outstanding stock of Opexa. The agreement closed on November 5, 2004. Pharma issued Opexa shareholders 2,500,000 shares of Pharma's common stock for all of the outstanding stock of

Opexa. 250,000 of the 2,500,000 shares were put in escrow for a one-year period pursuant to the escrow agreement. The balance of the 250,000 shares were issued to Opexa shareholders in November 2005. The acquisition was accounted for under the purchase
method, where all of Opexa's assets are restated to their fair market value on the acquisition date, which approximated book value. The 2,500,000 shares of Pharma were valued at their then fair value of $23,750,000 or $9.50 per share.

Pharma acquired Opexa because Opexa holds rights to technology to diagnose and treat multiple sclerosis through modified autoreactive T cells and is currently in FDA Phase I/II human dose ranging clinical trials to evaluate its safety and effectiveness in treating multiple sclerosis.

The results of operations for Opexa from November 6, 2004 through December 31, 2005 are included in the Statements of Operations and the Statements of Cash Flows.

The following table summarizes the estimated fair values of the assets acquired and the liabilities assumed at the date of acquisition:

| | | |
|---|---|---|
| Current assets | $ | 55,387 |
| Property, plant and equipment, net | | 639,160 |
| Intangible assets | | 23,991,128 |
| Total assets acquired | | 24,685,675 |
| Current liabilities | | 935,675 |
| Total liabilities assumed | | 935,675 |
| Net assets acquired | $ | 23,750,000 |

Of the $23,991,128 of acquired intangible assets, the full amount is assigned to an inseparable group of patents and licenses that cannot function independently by themselves. The weighted average useful life of the intangible group as of December 31, 2005 is approximately 15 years.

**NOTE 13 - STOCK PURCHASE AGREEMENT**

In June 2004, Pharma was acquired by Sportan United Industries, Inc. in a transaction accounted for as a reverse acquisition. Pharma's shareholders were issued 6,386,439 Sportan shares in exchange for 100 percent of the outstanding common shares of Pharma. Immediately following this transaction, Sportan changed its name to Pharma and 7,383,838 shares were outstanding.

**NOTE 14 - DERIVATIVE INSTRUMENTS**

We evaluated the application of SFAS 133 and EITF 00-19 for all of our financial instruments and identified the following financial instruments as derivatives:

(1) Series A Warrants issued in conjunction with the bridge note exchange and private placement offerings in June and July 2005( which expired on February 17, 2006)
(2) Series B Warrants issued in conjunction with the bridge note exchange and private placement offerings in June and July 2005
(3) Series C Warrants issued in conjunction with the bridge note exchange and private placement offerings in June and July 2005

We evaluated the provisions of the registration rights agreement that require us to pay registration delay payments in combination with the financial instrument and concluded that the combined instrument meets the definition of a derivative under SFAS 133 because the most economic form of settlement under the warrant agreements would be for us to issue registered shares which is deemed outside of our control under EITF 00-19.

We determined that certain warrants to purchase our common stock are derivatives that we are required to account for as free-standing liability instruments in our financial statements. As a result, we report the value of these derivatives as current liabilities on our balance sheet and report changes in the value of these derivatives as non-operating gains or losses on our statements of operations. The value of the derivatives is required to be remeasured on a quarterly basis, and is based on the Black Scholes Pricing Model.

Variables used in the Black-Scholes option-pricing model include (1) 4.08% to 4.35% risk-free interest rate, (2) expected warrant life is the actual remaining life of the warrants as of each period end, (3) expected volatility is from 30% to 475% and (4) zero expected dividends.

Due to the nature of the required calculations and the large number of shares of our common stock involved in such calculations, changes in our common stock price may result in significant changes in the value of the derivatives and resulting gains and losses on our statement of operations.

The impact of the application of SFAS 133 and EITF 00-19 on the balance sheet and statements of operations as of and through December 31, 2005 was as follows:

| | Transaction Date (10/26/2005) | Liability as of 12/31/2005 | Gain through 12/31/2005 |
|---|---|---|---|
| Series A Warrants | $ 332,441 | $ - | $ 332,441 |
| Series B Warrants | 905,840 | 264,957 | 640,882 |
| Series C Warrants | 9,420,215 | 6,496,697 | 2,923,519 |
| Totals | $ 10,658,496 | $ 6,761,654 | $ 3,896,842 |

**NOTE 15 - RESTATEMENT**

In accordance with SFAS 133 and EITF 00-19, in June 2006, we determined that certain warrants to purchase our common stock should be separately accounted for as liabilities (see note 14 for details). We had not classified these derivative liabilities as such in our previously issued financial statements. In order to reflect these changes, we restated our financial statements for the year ended December 31, 2005 to record the fair value of these warrants on our balance sheet as a liability and record changes in the values of these derivatives in our consolidated statement of operations as unrealized “Gain (loss) on derivative liabilities.”

The aggregate balance sheet amount shown for these derivative liabilities decreased from $10,658,496 on October 26, 2005, the date the warrants became liabilities, to $6,761,654 on December 31, 2005, resulting in a gain of $3,896,842 in the statements of operations for the year ended December 31, 2005. This resulted in total liabilities being understated by $6,761,654 and net loss being overstated by $3,896,842.

**NOTE 16 - SUBSEQUENT EVENTS**

Pharma entered into a remodeling construction contract to complete three Good Manufacturing Practice (“GMP”) production suites at its new facility. The construction contract plus equipment purchased separately cost approximately $500,000. The construction began October 1, 2005.

The construction of the GMP facilities was completed in January and certified on March 20, 2006 as an ISO 7 facility.

The Series A Warrant issued to investors in connection with the bridge note exchange and private placement offerings in June and July of 2005 expired on February 17, 2006.


# Opexa Therapeutics, Inc.

## Common Stock

**PROSPECTUS**

**June 29, 2006**

**Exhibit 23.1**

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors
Opexa Therapeutics, Inc.
(formerly PharmaFrontiers Corp.)
The Woodlands, Texas

We hereby consent to the incorporation by reference in this Registration Statement on Form SB-2/A our report dated February 7, 2006 and June 20, 2006 included herein for the two years ended December 31, 2005 and the period from January 22, 2003 (Inception) through December 31, 2005.

We also consent to the references to us under the heading “Experts” in such Document.

June 21, 2006

Malone & Bailey, PC
www.malone-bailey.com
Houston, Texas