ARBIOS SYSTEMS INC
Form 424B3
June 21, 2006

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Registration Statement Nos.
333-133577, 333-116439 and 333-122655

PROSPECTUS

ARBIOS SYSTEMS, INC.

18,009,073 Shares of Common Stock

This prospectus relates to the sale or other disposition of up to 9,993,593 shares of our currently outstanding shares of common stock that are owned by some of our stockholders, and 8,015,480 shares of our common stock issuable upon the exercise of currently outstanding common stock purchase warrants held by some of our stockholders. For a list of the selling stockholders, please refer to the "Selling Stockholders" section of this prospectus. We are not selling any shares of common stock in this offering and therefore will not receive any proceeds from this offering. We will, however, receive the exercise price of the warrants if and when those warrants are exercised by the selling stockholders. None of the warrants has been exercised as of the date of this prospectus. We will pay the expenses of registering these shares.

Our common stock is traded in the over-the-counter market and is quoted on the OTC Bulletin Board under the symbol ABOS. On June 20, 2006, the closing price of our common stock was $1.01 per share.

The shares included in this prospectus may be disposed of 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. We will not control or determine the price at which a selling stockholder decides to sell or otherwise dispose of its shares. Brokers or dealers effecting transactions in these shares should confirm that the shares are registered under applicable state law or that an exemption from registration is available.

You should understand the risks associated with investing in our common stock. Before making an investment, please read the “Risk Factors” section of this prospectus, which begins on page 4.

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

The date of this prospectus is June 20, 2006.

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PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus; it does not contain all of the information you should consider before investing in our common stock. Read the entire prospectus before making an investment decision.

Throughout this prospectus, the terms "we," "us," "our," and "our company" refer to Arbios Systems, Inc., a Delaware corporation.

A glossary of certain terms used in this prospectus is contained on page 44 under "Glossary of Terms."

Company Overview

Arbios Systems, Inc., or Arbios, is a Delaware corporation based in Los Angeles, California. We seek to develop, manufacture and market liver assist therapies to meet the urgent need for medical treatment of liver failure.

We are a medical device and cell therapy company that is focusing on the development of products for the treatment of liver failure. Our lead products under development currently consist of a novel extracorporeal blood purification therapy called the SEPET™ Liver Assist Device and an extracorporeal, bioartificial liver therapy referred to as the HepatAssist-2™ Bioartificial Liver System that incorporate porcine pig liver cells. We also have rights and a licensing agreement to the LIVERAID™ Bioartificial Liver System, which is a potential enhancement to HepatAssist-2™, but development of that system is on an indefinite hold. We currently own seven key U.S. patents and are the licensee of seven other U.S. patents, as well as the owner of a patent application and numerous related trade secrets.

In April 2005, we received permission from the United States Food and Drug Administration, or the FDA, to commence a 15-patient feasibility clinical study of our SEPET™ cartridge. The enrollment of patients for the clinical trial has been slower than we anticipated; however, the FDA has granted us permission for additional clinical sites to participate in the clinical trial. We currently have three clinical sites enrolling patients and we have broadened the patient eligibility criteria to expedite patient accrual. Our HepatAssist-2™ Bioartificial Liver System is an enhanced version of a system referred to as HepatAssist® which we acquired from another company, Circe Biomedical, Inc., and which has been tested in Phase II/III clinical trials. We have an active Phase III investigational new drug application, or IND, to conduct additional clinical trials using HepatAssist™ and intend to focus on introducing this important liver assist technology into clinical practice. Because of the high cost and technological difficulties in the manufacture of LIVERAID™ devices, we have decided to stop the development of the LIVERAID™ Bioartificial Liver System indefinitely. This decision allows us to allocate our financial and organizational resources to the development of the SEPET™ and HepatAssist-2™ technologies.

Company History. Arbios Systems, Inc. was originally incorporated in February 1999 as Historical Autographs U.S.A., Inc., or HAUSA. Until October 2003, HAUSA was an e-commerce based company engaged in the business of acquiring and marketing historical documents. On October 30, 2003, HAUSA completed a reorganization (the "Reorganization") in which HAUSA, through its wholly-owned subsidiary, acquired all of the outstanding shares of Arbios Technologies, Inc., or ATI, in exchange for 11,930,598 shares of HAUSA common stock. As a result of the Reorganization, ATI became the wholly-owned subsidiary of HAUSA. After the Reorganization, HAUSA changed its name to "Arbios Systems, Inc.," replaced its officers and directors with those of ATI, closed its offices, ceased its e-commerce business, and moved its offices to Los Angeles, California. On July 25, 2005, Arbios Systems, Inc. completed its reincorporation as a Delaware corporation by merging with and into Arbios Systems, Inc., a Delaware corporation. The foregoing merger was approved by the Company's stockholders at the annual meeting of stockholders held on July 7, 2005. In order to consolidate the functions and operations of Arbios and ATI, on July 26, 2005, ATI merged into Arbios. As a result, Arbios now owns all of the assets of ATI and all of the operations of the two

companies have been consolidated into Arbios.

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Our principal operations and executive offices are located at 8797 Beverly Blvd., Suite 304, Los Angeles, California 90048 and our telephone number is (310) 657-4898. We also maintain corporate offices at 1050 Winter Street, Suite 1000, Waltham, Massachusetts 02451 and a manufacturing facility based in Connecticut. We also maintain a web site at *www.arbios.com*. The information on our web site is not, and you must not consider such information to be, a part of this filing.

The Offering

Common stock covered hereby	18,009,073 shares, consisting of 9,993,593 outstanding shares owned by selling stockholders and 8,015,480 shares issuable to selling stockholders upon exercise of outstanding warrants.
Common stock currently outstanding	17,460,181 shares (1)
Common stock to be outstanding assuming the sale of all shares covered hereby and assuming no exercise of the warrants for the shares covered by this prospectus	17,460,181 shares (1)
Common stock to be outstanding assuming the sale of all shares covered hereby and assuming the exercise of all warrants for the shares covered by this prospectus	25,475,661 shares (1)
OTC Bulletin Board Trading Symbol	ABOS
Risk Factors	An investment in our common stock involves significant risks. See “Risk Factors” beginning on page 4.

(1) In addition to these outstanding shares of common stock, as of May 22, 2006, there were outstanding (i) options to purchase 2,115,000 shares of our common stock (with exercise prices ranging from $0.15 per share to $3.40 per share), and (ii) warrants (other than the warrants owned by the selling stockholders) to purchase 150,000 shares of our common stock (with exercise prices ranging from $1.00 per share to $3.50 per share).

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the risks described below and the other information contained in this prospectus and in the documents incorporated by reference before deciding to invest in our company. If any of the following risks actually occur, our business, financial condition or operating results and the trading price or value of our securities could be materially adversely affected.

RISKS RELATED TO OUR BUSINESS

We are an early-stage company subject to all of the risks and uncertainties of a new business, including the risk that we may never market any products or generate revenues.

We are an early-stage company that has not generated any operating revenues to date (our only revenues were from two government research grants). Accordingly, while we have been in existence for over five years, we should be evaluated as an early-stage company, subject to all of the risks and uncertainties normally associated with an early-stage company. As an early-stage company, we expect to incur significant operating losses for the foreseeable future, and there can be no assurance that we will be able to validate and market products in the future that will generate revenues or that any revenues generated will be sufficient for us to become profitable or thereafter maintain profitability.

We have had no product sales to date, and we can give no assurance that there will ever be any sales in the future.

All of our products are still in research or development, and no revenues have been generated to date from product sales. There is no guarantee that we will ever develop commercially viable products. To become profitable, we will have to successfully develop, obtain regulatory approval for, produce, market and sell our products. There can be no assurance that our product development efforts will be successfully completed, that we will be able to obtain all required regulatory approvals, that we will be able to manufacture our products at an acceptable cost and with acceptable quality, or that our products can be successfully marketed in the future. We currently do not expect to receive revenues from the sale of any of our products for at least two to three years.

Before we can market any of our products, we must obtain governmental approval for each of our products, the application and receipt of which is time-consuming, costly and uncertain.

The development, production and marketing of our products are subject to extensive regulation by government authorities in the United States and other countries. In the United States, SEPET™ and our bioartificial liver systems will require approval from the United States Food and Drug Administration ("FDA") prior to clinical testing and commercialization. The process for obtaining FDA approval to both conduct the required trials and to market therapeutic products is both time-consuming and costly, with no certainty of a successful outcome. This process includes the conduct of extensive pre-clinical and clinical testing, which may take longer or cost more than we currently anticipate due to numerous factors, including without limitation, difficulty in securing centers to conduct trials, difficulty in enrolling patients in conformity with required protocols and/or projected timelines, unexpected adverse reactions by patients in the trials to our liver assist systems, temporary suspension and/or complete ban on trials of our products due to the risk of transmitting pathogens from the xenogeneic biologic component, and changes in the FDA's requirements for our testing during the course of that testing. For example, last year, the FDA granted us permission to commence a feasibility clinical trial for SEPET™ for 15 patients at two sites. In March 2006, the FDA allowed us to expand the number of clinical testing sites from two sites to up to four sites, and expand the patient enrollment of up to 20 patients for the SEPET™ feasibility clinical trial. Based on our estimates of the time it would take to obtain all required approvals at the three medical centers at which the Phase I feasibility clinical trial is being conducted, and based on the estimated time it would take to enroll patients in the trial, we had hoped to finish the study by the end of the current year. However, obtaining all medical center approvals took longer than anticipated, and patient accrual into this study has been slower than anticipated. Accordingly, while we still expect to complete the SEPET™ feasibility clinical trial in the near future, we no longer are certain that the study will be concluded by the end of the year. Assuming that the feasibility clinical trial is successful, we may still have to obtain the FDA's approval to conduct a pivotal trial. We have not yet established with the FDA the nature and number of these additional clinical trials that the FDA will require in connection with its review and approval of either SEPET™ or our HepatAssist-2™ bioartificial liver system, and these requirements may be more costly or time-consuming than we currently anticipate.

Each of our products in development is novel both in terms of its composition and function. Thus, we may encounter unexpected safety, efficacy or manufacturing issues as we seek to obtain marketing approval for products from the FDA, and there can be no assurance that we will be able to obtain approval from the FDA or any foreign governmental agencies for marketing of any of our products. The failure to receive, or any significant delay in receiving, FDA approval, or the imposition of significant limitations on the indicated uses of our products, would have a material adverse effect on our business, operating results and financial condition. The health regulatory authorities of certain countries, including those of Japan, France and the United Kingdom, have previously objected, and other countries' regulatory authorities could potentially object to the marketing of any therapy that uses pig liver cells (which our HepatAssist-2™ bioartificial liver system is designed to utilize) due to safety concerns that pig cells may transmit viruses or diseases to humans. If the health regulatory agencies of other countries impose a ban on the use of therapies that incorporate pig cells, such as our HepatAssist-2™ bioartificial liver system, we would be prevented from marketing our products in those countries. If we are unable to obtain the approval of the health regulatory authorities in Japan, France, the United Kingdom or other countries, the potential market for our products will be reduced.

Because our products are at an early stage of development and have never been marketed, we do not know if any of our products will ever be approved for marketing, and any such approval will take several years to obtain.

Before obtaining regulatory approvals for the commercial sale of our products, significant and potentially very costly preclinical and clinical work will be necessary. There can be no assurance that we will be able to successfully complete all required testing of SEPET™ or our HepatAssist-2™ bioartificial liver system. While the time periods for testing our products and obtaining the FDA's approval are dependent upon many future variable and unpredictable events, we estimate that it could take between two to three years to obtain approval for SEPET™ and three to four years for HepatAssist-2™. We have not independently confirmed any of the third-party claims made with respect to patents,

licenses or technologies we have acquired concerning the potential safety or efficacy of these products and technologies. Before we can begin clinical testing of our bioartificial liver system, we will need to amend our active Phase III IND to resume clinical testing of our HepatAssist-2™ bioartificial liver system, which application will have to be cleared by the FDA. The FDA may require significant revisions to our clinical testing plans or require us to demonstrate efficacy endpoints that are more time-consuming or difficult to achieve than what we currently anticipate. Because of the early stage of development of each of our products, we do not know if we will be able to generate clinical data that will support the filing of the FDA applications for these products or the FDA's approval of any product marketing approval application or IND that we do file.

The cost of conducting pivotal clinical studies for SEPET and HepatAssist-2™ exceeds our current financial resources. Accordingly, we will not be able to conduct such studies until we obtain additional funding.

If the feasibility clinical trial for SEPET is successful, we may still have to obtain the FDA's approval to conduct a pivotal trial. We have not yet established with the FDA the nature and number of additional clinical trials that the FDA may require in connection with its review and approval of SEPET™. Based on our internal projections of our operating costs and the costs normally associated with pivotal trials, we do not believe that we currently have sufficient funds to conduct any such pivotal trial(s) nor have we identified any sources for obtaining the required funds.

We are currently considering requesting FDA approval to commence a Phase III clinical trial of the HepatAssist-2™ system. Such a request will require that we supplement and/or amend the existing Phase III IND that was approved by the FDA for the original HepatAssist system on which the HepatAssist-2™ is based. The preparation of a modified or supplemented Phase III IND will be expensive and difficult to prepare. Although the cost of completing the Phase III clinical trial in the manner that we currently contemplate is uncertain and could vary significantly, if that Phase III clinical trial is authorized by the FDA, we currently estimate that the cost of conducting that study would be between $15 million and $20 million, excluding the manufacturing infrastructure. We currently do not have sufficient funds to conduct this study and have not identified any sources for obtaining the required funds. In addition, no assurance can be given that the FDA will accept our proposed changes to the previously approved Phase III IND. The clinical tests that we would conduct under any FDA-approved protocol are very expensive and will cost much more than our current financial resources. Accordingly, even if the FDA approves the modified Phase III IND that we submit for HepatAssist-2™, we will not be able to conduct any clinical trials until we raise substantial amounts of additional financing.

Our cell based liver support system utilizes a biological component obtained from pigs that could prevent or restrict the release and use of those products.

Use of liver cells harvested from pig livers carries a risk of transmitting viruses harmless to pigs but potentially deadly to humans. For instance, all pig cells carry genetic material of the porcine endogenous retrovirus ("PERV"), but its ability to infect people is unknown. Repeated testing, including a 1999 study of 160 xenotransplantation (transplantation from animals to humans) patients and the Phase II/III testing of the HepatAssist system by Circe Biomedical, Inc., has produced no sign of the transmission of PERV to humans. Still, no one can prove that PERV or another virus would not infect bioartificial liver-treated patients and cause potentially serious disease. This may result in the FDA or other health regulatory agencies not approving our HepatAssist-2™ bioartificial liver system or subsequently banning any further use of our product should health concerns arise after the product has been approved. At this time, it is unclear whether we will be able to obtain clinical and product liability insurance that covers the PERV risk.

In addition to the potential health risks associated with the use of pig liver cells, our use of xenotransplantation technologies may be opposed by individuals or organizations on health, religious or ethical grounds. Certain animal rights groups and other organizations are known to protest animal research and development programs or to boycott products resulting from such programs. Previously, some groups have objected to the use of pig liver cells by other companies, including Circe Biomedical, Inc., that were developing bioartificial liver support systems, and it is possible that such groups could object to our bioartificial liver system. Litigation instituted by any of these organizations, and negative publicity regarding our use of pig liver cells in a bioartificial liver device, could have a material adverse effect on our business, operating results and financial condition.

Because our products represent new approaches to treatment of liver disease, there are many uncertainties regarding the development, the market acceptance and the commercial potential of our products.

Our products will represent new therapeutic approaches for disease conditions. We may, as a result, encounter delays as compared to other products under development in reaching agreements with the FDA or other applicable governmental agencies as to the development plans and data that will be required to obtain marketing approvals from these agencies. There can be no assurance that these approaches will gain acceptance among doctors or patients or that governmental or third party medical reimbursement payers will be willing to provide reimbursement coverage for our products. Moreover, we do not have the marketing data resources possessed by the major pharmaceutical companies, and we have not independently verified the potential size of the commercial markets for any of our products. Since our products will represent new approaches to treating liver diseases, it may be difficult, in any event, to accurately estimate the potential revenues from our products, as there currently are no directly comparable products being marketed.

Despite our recent $1.35 million private equity financing and current cash on hand, we still need to obtain significant additional capital to complete the development of our liver assist devices, which additional funding may dilute our existing stockholders.

Based on our current proposed plans and assumptions, we anticipate that our existing funds will be sufficient to fund our operations and capital requirements for at least the 12-month period following the date of this prospectus. However, the clinical development expenses of our products will be very substantial. Based on our current assumptions, we estimate that the clinical cost of developing SEPET™ will be approximately $5 million to $10 million, and the clinical cost of developing HepatAssist-2™ will be between $15 million and $20 million, in excess of the cost of basic operations of the Company. These amounts, which could vary substantially if our assumptions are not correct, are well in excess of the amount of cash that we currently have available to us. Accordingly, we will be required to (i) obtain additional debt or equity financing in order to fund the further development of our products and working capital needs, and/or (ii) enter into a strategic alliance with a larger pharmaceutical or biomedical company to provide its required funding. The amount of funding needed to complete the development of one or both of our products will be very substantial and may be in excess of our ability to raise capital.

We have not identified the sources for the additional financing that we will require, and we do not have commitments from any third parties to provide this financing. There can be no assurance that sufficient funding will be available to us at acceptable terms or at all. If we are unable to obtain sufficient financing on a timely basis, the development of our products could be delayed and we could be forced to reduce the scope of our pre-clinical and clinical trials or otherwise limit or terminate our operations altogether. Any equity additional funding that we obtain will reduce the percentage ownership held by our existing security holders.

As a new small company that will be competing against numerous large, established companies that have substantially greater financial, technical, manufacturing, marketing, distribution and other resources than us, we will be at a competitive disadvantage.

The pharmaceutical, biopharmaceutical and biotechnology industry is characterized by intense competition and rapid and significant technological advancements. Many companies, research institutions and universities are working in a number of areas similar to our primary fields of interest to develop new products, some of which may be similar and/or competitive to our products. Furthermore, many companies are engaged in the development of medical devices or products that are or will be competitive with our proposed products. Most of the companies with which we compete have substantially greater financial, technical, manufacturing, marketing, distribution and other resources than us.

We will need to outsource and rely on third parties for the clinical development and manufacture and marketing of our products.

Our business model calls for the outsourcing of the clinical development, manufacturing and marketing of our products in order to reduce our capital and infrastructure costs as a means of potentially improving the profitability of these products for us. We have not yet entered into any strategic alliances or other licensing or contract manufacturing arrangements (except for the contractual manufacturing of LIVERAID™ modules by Spectrum Laboratories which we have indefinitely placed on hold) and there can be no assurance that we will be able to enter into satisfactory arrangements for these services or the manufacture or marketing of our products. We will be required to expend substantial amounts to retain and continue to utilize the services of one or more clinical research management organizations without any assurance that the products covered by the clinical trials conducted under their management ultimately will generate any revenues for SEPET™ and/or our HepatAssist™-2 bioartificial liver system. Consistent with our business model, we will seek to enter into strategic alliances with other larger companies to market and sell our products. In addition, we may need to utilize contract manufacturers to manufacture our products or even our commercial supplies, and we may contract with independent sales and marketing firms to use their pharmaceutical sales force on a contract basis.

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To the extent that we rely on other companies to manage the conduct of our clinical trials and to manufacture or market our products, we will be dependent on the timeliness and effectiveness of their efforts. If the clinical research management organization that we utilize is unable to allocate sufficient qualified personnel to our studies or if the work performed by them does not fully satisfy the rigorous requirement of the FDA, we may encounter substantial delays and increased costs in completing our clinical trials. If the manufacturers of the raw material and finished product for our clinical trials are unable to meet our time schedules or cost parameters, the timing of our clinical trials and development of our products may be adversely affected. Any manufacturer that we select may encounter difficulties in scaling-up the manufacture of new products in commercial quantities, including problems involving product yields, product stability or shelf life, quality control, adequacy of control procedures and policies, compliance with FDA regulations and the need for further FDA approval of any new manufacturing processes and facilities. Should our manufacturing or marketing company encounter regulatory problems with the FDA, FDA approval of our products could be delayed or the marketing of our products could be suspended or otherwise adversely affected.

Because we are currently dependent on Spectrum Laboratories, Inc. as the manufacturer of our SEPET™ cartridges, any failure or delay by Spectrum Laboratories to manufacture the cartridges will negatively affect our future operations.

We have an exclusive manufacturing arrangement with Spectrum Laboratories for our fiber-within-fiber LIVERAID™ cartridges, the development of which we have placed on indefinite hold. Although we have no agreement with Spectrum Laboratories for the manufacture of the SEPET™ cartridges, Spectrum Laboratories has also been providing us with cartridges for prototypes of SEPET™ and has expressed an interest in manufacturing the HepatAssist-2™ cartridge. Although Spectrum Laboratories has agreed to transfer all of the know-how related to these products to any other manufacturer of our products if Spectrum Laboratories is unable to meet its contractual obligations to us, we may have difficulty in finding a replacement manufacturer if we are unable to effectively transfer the Spectrum Laboratories know-how to another manufacturer. We have no control over Spectrum Laboratories or its suppliers, and if Spectrum Laboratories is unable to produce SEPET™ cartridges on a timely basis, our business may be adversely affected.

We currently do not have a manufacturing arrangement for the cartridges used in the HepatAssist-2™ system. While we believe there are several potential contract manufacturers who can produce these cartridges, there can be no assurance that we will be able to enter into such an arrangement on commercially favorable terms, or at all.

Because we are dependent on Medtronic, Inc. for the perfusion platform used in our HepatAssist-2™ bioartificial liver system, any failure or delay by Medtronic to make the perfusion platform commercially available will negatively affect our future operations.

We currently expect that a perfusion system known as the PERFORMER will become the platform for our HepatAssist-2™ system. The PERFORMER has been equipped with proprietary software and our tubing in order to enable the machine to work with our HepatAssist-2™ bioartificial liver system. A limited number of the PERFORMER units have been manufactured to date. The PERFORMER is being manufactured by RanD, S.r.l. (Italy) and marketed by Medtronic, Inc. We currently do not have an agreement to purchase the PERFORMER from Medtronic or any other source. In the event that RanD and Medtronic are either unable or unwilling to manufacture the number of PERFORMERS needed to ensure that HepatAssist-2™ is commercially viable, we would not have an alternate platform immediately available for use, and the development and sales of such a system would cease until an alternate platform is developed or found. We may have difficulty in finding a replacement platform and may be required to develop a new platform in collaboration with a third party contract manufacturer. While we believe there are several potential contract manufacturers who can develop and manufacture perfusion platforms meeting the HepatAssist-2™ functional and operational characteristics, there can be no assurance that we will be able to enter into such an arrangement on commercially favorable terms, or at all. In addition, we may encounter substantial delays and increased costs in completing our clinical trials if we have difficulty in finding a replacement platform or if we are

required to develop a new platform for bioartificial liver use.

We may not have sufficient legal protection of our proprietary rights, which could result in the use of our intellectual properties by our competitors.

Our ability to compete successfully will depend, in part, on our ability to defend patents that have been issued, obtain new patents, protect trade secrets and operate without infringing the proprietary rights of others. We currently own seven U.S. and three foreign patents on our liver support products, have one patent application pending, and are the licensee of seven additional liver support patents. We have relied substantially on the patent legal work that was performed for our assignors and licensors with respect to all of these patents, application and licenses, and have not independently verified the validity or any other aspects of the patents or patent applications covering our products with our own patent counsel.

Even when we have obtained patent protection for our products, there is no guarantee that the coverage of these patents will be sufficiently broad to protect us from competitors or that we will be able to enforce our patents against potential infringers. Patent litigation is expensive, and we may not be able to afford the costs. Third parties could also assert that our products infringe patents or other proprietary rights held by them.

We will attempt to protect our proprietary information as trade secrets through nondisclosure agreements with each of our employees, licensing partners, consultants, agents and other organizations to which we disclose our proprietary information. There can be no assurance, however, that these agreements will provide effective protection for our proprietary information in the event of unauthorized use of disclosure of such information.

The development of our products is dependent upon Dr. Rozga and certain other persons, and the loss of one or more of these key persons would materially and adversely affect our business and prospects.

We are highly dependent on Jacek Rozga, MD, PhD, our Chief Scientific Officer. To a lesser extent, we also depend upon the medical and scientific advisory services that we receive from the members of our Board of Directors, all of whom have extensive backgrounds in medicine. However, each of these individuals, except Dr. Rozga, works for us as an unpaid advisor only on a part-time, very limited basis. We are also dependent upon the voluntary advisory services of Achilles A. Demetriou, MD, PhD, FACS, the other co-founder of Arbios and the Chairman of our Scientific Advisory Board. In addition, we are dependent on the services of our Chief Executive Officer, Walter C. Ogier, to provide investor relations contacts, establish strategic relationships, and oversee the raising of capital for the Company. We do not have a long-term employment contract with Dr. Rozga, Dr. Demetriou or Mr. Ogier, and the loss of the services of any of the foregoing persons would have a material adverse effect on our business, operations and on the development of our products. We do not carry key man life insurance on any of these individuals.

As we expand the scope of our operations by preparing FDA submissions, conducting multiple clinical trials, and potentially acquiring related technologies, we will need to obtain the full-time services of additional senior scientific and management personnel. Competition for these personnel is intense, and there can be no assurance that we will be able to attract or retain qualified senior personnel. As we retain full-time senior personnel, our overhead expenses for salaries and related items will increase substantially from current levels.

The market success of our products will be dependent in part upon third-party reimbursement policies that have not yet been established.

Our ability to successfully penetrate the market for our products may depend significantly on the availability of reimbursement for our products from third-party payers, such as governmental programs, private insurance and private health plans. We have not yet established with Medicare or any third-party payers what level of reimbursement, if any, will be available for our products, and we cannot predict whether levels of reimbursement for our products, if any, will be high enough to allow us to charge a reasonable profit margin. Even with FDA approval, third-party payers may deny reimbursement if the payer determines that our particular new products are unnecessary, inappropriate or not

cost effective. If patients are not entitled to receive reimbursement similar to reimbursement for competing products, they may be unwilling to use our products since they will have to pay for the unreimbursed amounts, which may well be substantial. The reimbursement status of newly approved health care products is highly uncertain. If levels of reimbursement are decreased in the future, the demand for our products could diminish or our ability to sell our products on a profitable basis could be adversely affected.

We may be subject to product liability claims that could have a material negative effect on our operations and on our financial condition.

The development, manufacture and sale of medical products expose us to the risk of significant damages from product liability claims. We have obtained clinical trial insurance for our SEPET™ trials. We plan to obtain and maintain product liability insurance for coverage of our clinical trial activities. However, there can be no assurance that we will be able to continue to secure such insurance for clinical trials for either of our two current products under development. We intend to obtain coverage for our products when they enter the marketplace (as well as requiring the manufacturers of our products to maintain insurance). We do not know if it will be available to us at acceptable costs. We may encounter difficulty in obtaining clinical trial or commercial product liability insurance for our bioartificial liver device that we develop since this therapy includes the use of pig liver cells and we are not aware of any therapy using these cells that has sought or obtained such insurance. If the cost of insurance is too high or insurance is unavailable to us, we will have to self-insure. A successful claim in excess of product liability coverage could have a material adverse effect on our business, financial condition and results of operations. The costs for many forms of liability insurance have risen substantially during the past year, and such costs may continue to increase in the future, which could materially impact our costs for clinical or product liability insurance.

If we are not able to implement the requirements of Section 404 of the Sarbanes-Oxley Act of 2002 in a timely manner or with adequate compliance, we may be unable to provide the required financial information in a timely and reliable manner and may be subject to sanction by regulatory authorities.

We cannot be certain at this time that we will have the expertise and resources to be able to comply with all of our reporting obligations and successfully complete the procedures, certification and attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002 by the time that we are required to do so. If we fail to comply with the requirements of Section 404, or if we or our independent registered public accounting firm identifies any material weaknesses, the accuracy and timeliness of the filing of our annual and quarterly reports may be negatively affected and could cause investors to lose confidence in our financial statements, impair our ability to obtain financing or result in regulatory sanctions. Remediating any material weakness could require additional management attention and increased compliance costs.

Changes in stock option accounting rules may adversely affect our reported operating results, our stock price, and our ability to attract and retain employees.

In December 2004, the Financial Accounting Standards Board published new rules that will require companies to record all stock-based employee compensation as an expense. Small business issuers such as this Company have to apply the new rules in their first reporting period beginning after December 15, 2005. The new rules apply to stock options grants, as well as a wide range of other share-based compensation arrangements including restricted share plans, performance-based awards, share appreciation rights, and employee share purchase plans. As a small company with limited financial resources, we have depended upon compensating our officers, directors, employees and consultants with such stock based compensation awards in the past in order to limit our cash expenditures and to attract and retain officers, directors, employees and consultants. Accordingly, if we continue to grant stock options or other stock based compensation awards to our officers, directors, employees, and consultants after the new rules apply to us, our future earnings, if any, will be reduced (or our future losses will be increased) by the expenses recorded for those grants. These compensation expenses may be larger than the compensation expense that we would be required to record were we able to compensate these persons with cash in lieu of securities. Since we are a small company, the expenses we may have to record as a result of future options grants may be significant and may materially negatively affect our reported financial results. The adverse effects that the new accounting rules may have on our future financial statements should we continue to rely heavily on stock-based compensation may reduce our stock price and make it more difficult for us to attract new investors. In addition, reducing our use of stock plans to reward and incentivize our officers, directors and employees, could result in a competitive disadvantage to us in the employee

marketplace.

If we make any further acquisitions, we will incur a variety of costs and might never successfully integrate the acquired product or business into ours.

Following our acquisition of the HepatAssist® system from Circe Biomedical, Inc., we might attempt to acquire products or businesses that we believe are a strategic complement to our business model. We might encounter operating difficulties and expenditures relating to integrating HepatAssist® or any other acquired product or business. These acquisitions might require significant management attention that would otherwise be available for ongoing development of our business. In addition, we might never realize the anticipated benefits of any acquisition. We might also make dilutive issuances of equity securities, incur debt or experience a decrease in cash available for our operations, incur contingent liabilities and/or amortization expenses relating to goodwill and other intangible assets, or incur employee dissatisfaction in connection with future acquisitions.

If we are unable to comply with the terms of registration rights agreements to which we are a party, we may be obligated to pay liquidated damages to some of our stockholders and recharacterize outstanding warrants as debt.

We are a party to registration rights agreements with some of our stockholders. The registration rights agreements provide, among other things, that we register shares of our common stock held by those stockholders within a specified period of time and that we keep the registration statement associated with those shares continuously effective. If we are unable to comply with these provisions of the registration rights agreements, we may be obligated to pay those stockholders liquidated damages. Because of the potential operation of these provisions of our registration rights agreements, we have recharacterized some of our outstanding warrants from equity to debt, and this is reflected in our financial statements. These penalty provisions may also force us to recharacterize some of our other outstanding warrants from equity to debt. If we have to make this recharacterization, our liabilities would increase and our financial statements would be negatively impacted.

RISKS RELATED TO OUR COMMON STOCK

Our stock is thinly traded, so you may be unable to sell at or near ask prices or at all if you need to sell your shares to raise money or otherwise desire to liquidate your shares.

The shares of our common stock are thinly-traded on the OTC Bulletin Board, meaning that the number of persons interested in purchasing our common shares at or near ask prices at any given time may be relatively small or non-existent. This situation is attributable to a number of factors, including the fact that we are a small company which is relatively unknown to stock analysts, stock brokers, institutional investors and others in the investment community that generate or influence sales volume, and that even if we came to the attention of such persons, they tend to be risk-averse and would be reluctant to follow an unproven, early stage company such as ours or purchase or recommend the purchase of our shares until such time as we became more seasoned and viable. As a consequence, there may be periods of several days or more when trading activity in our shares is minimal or non-existent, as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without an adverse effect on share price. We cannot give you any assurance that a broader or more active public trading market for our common shares will develop or be sustained, or that current trading levels will be sustained. Due to these conditions, we can give you no assurance that you will be able to sell your shares at or near ask prices or at all if you need money or otherwise desire to liquidate your shares.

If securities or independent industry analysts do not publish research reports about our business, our stock price and trading volume could decline.

Small, relatively unknown companies can achieve visibility in the trading market through research and reports that industry or securities analysts publish. However, to our knowledge, no independent analysts cover our company. The lack of published reports by independent securities analysts could limit the interest in our stock and negatively affect

our stock price. We do not have any control over research and reports these analysts publish or whether they will be published at all. If any analyst who does cover us downgrades our stock, our stock price would likely decline. If any independent analyst ceases coverage of our company or fails to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

You may have difficulty selling our shares because they are deemed "penny stocks."

Since our common stock is not listed on the Nasdaq Stock Market, if the trading price of our common stock is below $5.00 per share, trading in our common stock will be subject to the requirements of certain rules promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which require additional disclosure by broker-dealers in connection with any trades involving a stock defined as a penny stock (generally, any non-Nasdaq equity security that has a market price of less than $5.00 per share, subject to certain exceptions) and a two business day "cooling off period" before brokers and dealers can effect transactions in penny stocks. Such rules impose various sales practice requirements on broker-dealers who sell penny stocks to persons other than established customers and accredited investors (generally defined as an investor with a net worth in excess of $1,000,000 or annual income exceeding $200,000 individually or $300,000 together with a spouse). For these types of transactions, the broker-dealer must make a special suitability determination for the purchaser and have received the purchaser's written consent to the transaction prior to the sale. The broker-dealer also must disclose the commissions payable to the broker-dealer, current bid and offer quotations for the penny stock and, if the broker-dealer is the sole market-maker, the broker-dealer must disclose this fact and the broker-dealer's presumed control over the market. Such information must be provided to the customer orally or in writing before or with the written confirmation of trade sent to the customer. Monthly statements must be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks. The additional burdens imposed upon broker-dealers by such requirements could discourage broker-dealers from effecting transactions in our common stock, which could severely limit the market liquidity of the common stock and the ability of holders of the common stock to sell their shares.

Anti-takeover provisions in our certificate of incorporation could affect the value of our stock

Our certificate of incorporation contains certain provisions that could be an impediment to a non-negotiated change in control. In particular, without stockholder approval we can issue up to 5,000,000 shares of preferred stock with rights and preferences determined by the board of directors. These provisions could make a hostile takeover or other non-negotiated change in control difficult, so that stockholders would not be able to receive a premium for their common stock.

Potential issuance of additional common and preferred stock could dilute existing stockholders

We are authorized to issue up to 60,000,000 shares of common stock. To the extent of such authorization, our board of directors has the ability, without seeking stockholder approval, to issue additional shares of common stock in the future for such consideration as the board of directors may consider sufficient. The issuance of additional common stock in the future will reduce the proportionate ownership and voting power of the common stock offered hereby. We are also authorized to issue up to 5,000,000 shares of preferred stock, the rights and preferences of which may be designated in series by the board of directors. Such designation of new series of preferred stock may be made without stockholder approval, and could create additional securities which would have dividend and liquidation preferences over the common stock offered hereby. Preferred stockholders could adversely affect the rights of holders of common stock by:

- exercising voting, redemption and conversion rights to the detriment of the holders of common stock;
- receiving preferences over the holders of common stock regarding or surplus funds in the event of our dissolution or liquidation;
- delaying, deferring or preventing a change in control of our company; and
- discouraging bids for our common stock.

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Additionally, some of our outstanding warrants to purchase common stock have anti-dilution protection. This means that if we issue securities for a price less than the price at which the warrants are exercisable for shares of common stock, the warrants will become eligible to purchase more shares of common stock at a lower price, which will dilute the ownership of our common stockholders.

Substantial number of shares of common stock may be released onto the market at any time, and the sales of such additional shares of common stock could cause stock price to fall.

As of May 22, 2006, we had outstanding 17,460,181 shares of common stock. However, in the past year, the average daily trading volume of our shares has only been a few thousand shares, and there have been many days in which no shares were traded at all. In October 2004 and in February 2005, we registered a total of 7,207,810 shares of our common stock issuable upon the exercise of outstanding warrants. Of these shares, 25,000 have been issued upon the exercise of a warrant and a warrant for 75,000 of the shares has been cancelled without being registered. The remaining 7,107,810 shares underlying warrants have not yet been issued and will not be issued until the warrants are exercised. Since the shares underlying these warrants have been registered, they can be sold immediately following the exercise. Accordingly, 7,107,810 additional shares could be released onto the trading market at any time. Because of the limited trading volume, the sudden release of 7,107,810 additional freely trading shares onto the market, or the perception that such shares will come onto the market, could have an adverse affect on the trading price of the stock. In addition, there are currently 5,972,272 shares of unregistered, restricted stock that are currently eligible for public resale under Rule 144 promulgated under the Securities Act, some of which shares also may be offered and sold on the market from time to time. No prediction can be made as to the effect, if any, that sales of the 7,107,810 registered warrant shares, or the sale of any of the 5,972,272 shares subject to Rule 144 sales will have on the market prices prevailing from time to time. Nevertheless, the possibility that substantial amounts of common stock may be sold in the public market may adversely affect prevailing market prices for our common stock and could impair our ability to raise capital through the sale of our equity securities.

The market price of our stock may be adversely affected by market volatility.

The market price of our common stock is likely to be volatile and could fluctuate widely in response to many factors, including:

- announcements of the results of clinical trials by us or our competitors,
- developments with respect to patents or proprietary rights,
- announcements of technological innovations by us or our competitors,
- announcements of new products or new contracts by us or our competitors,
- actual or anticipated variations in our operating results due to the level of development expenses and other factors,
- changes in financial estimates by securities analysts and whether our earnings meet or exceed such estimates,
- conditions and trends in the pharmaceutical and other industries,
- new accounting standards,
- general economic, political and market conditions and other factors, and the occurrence of any of the risks described in this prospectus.

FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 provides a “safe harbor” for forward-looking statements. This document contains forward-looking statements, which reflect the views of our management with respect to future events and financial performance. These forward-looking statements are subject to a number of uncertainties and other factors that could cause actual results to differ materially from such statements. Forward-looking statements are identified by words such as “anticipates,” “believes,” “estimates,” “expects,” “plans,” “projects,” “targets” and similar expressi Readers are cautioned not to place undue reliance on these forward-looking statements, which are based on the information available to management at this time and which speak only as of this date. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. For a discussion of some of the factors that may cause actual results to differ materially from those suggested by the forward-looking statements, please read carefully the information under “Risk Factors” beginning on page 4.

The identification in this document of factors that may affect future performance and the accuracy of forward-looking statements is meant to be illustrative and by no means exhaustive. All forward-looking statements should be evaluated with the understanding of their inherent uncertainty. You may rely only on the information contained in this prospectus.

We have not authorized anyone to provide information different from that contained in this prospectus. Neither the delivery of this prospectus nor the sale of common stock means that information contained in this prospectus is correct after the date of this prospectus. This prospectus is not an offer to sell or solicitation of an offer to buy these securities in any circumstances under which the offer or solicitation is unlawful.

USE OF PROCEEDS

We will not receive any proceeds from the sale or other disposition of the common stock covered hereby by the selling stockholders pursuant to this prospectus. However, we may receive the sale price of any common stock we sell to the selling stockholders upon exercise of the warrants. If all warrants included in this prospectus are exercised for cash (and not pursuant to the cashless exercise feature included in the warrants), the total amount of proceeds we would receive is $18,114,101. We expect to use the proceeds we receive from the exercise of warrants, if any, for general working capital purposes. We will pay the expenses of registration of these shares, including legal and accounting fees.

MARKET PRICE OF COMMON STOCK AND OTHER SHAREHOLDER MATTERS

Market Information

Our common stock has been traded on the OTC Bulletin Board over-the-counter market since March 18, 2004 under the symbol "ABOS." From the Reorganization until March 18, 2004, our common stock was listed on the Pink Sheets over-the-counter electronic trading system under the symbol "ABOS." Before to the Reorganization on October 30, 2003, our common stock was listed on the Pink Sheets under the symbol "HIAU," but there was virtually no trading in the common stock.

Our common stock will be offered in amounts, at prices, and on terms to be determined in light of market conditions at the time of sale. The shares may be sold directly by the selling stockholders in the open market at prevailing prices or in individually negotiated transactions, through agents, underwriters, or dealers. We will not control or determine the price at which the shares are sold.

The following table sets forth the high and low bid information for our common stock for each quarter within the last two fiscal years, as reported by Bloomberg L.P. The following price information reflects inter-dealer prices, without retail mark-up, mark-down or commission and may not represent actual transactions:

Quarter Ending	High	Low
March 31, 2004	$ 2.60	$ 2.25
June 30, 2004	$ 4.20	$ 2.50
September 30, 2004	$ 5.00	$ 3.85
December 31, 2004	$ 4.25	$ 2.45
March 31, 2005	$ 3.08	$ 1.48
June 30, 2005	$ 2.85	$ 1.51
September 30, 2005	$ 2.10	$ 1.60
December 31, 2005	$ 1.90	$ 1.50

Our common stock is also listed on the Frankfurt Stock Exchange in Germany. The trading symbol of our common stock on the Frankfurt Stock Exchange is "NNV."

Holders

As of May 22, 2006, there were 124 holders of record of our common stock.

Dividends

We have not paid any dividends on our common stock to date and do not anticipate that we will be paying dividends in the foreseeable future. Any payment of cash dividends on our common stock in the future will be dependent upon the amount of funds legally available, our earnings, if any, our financial condition, our anticipated capital requirements and other factors that the Board of Directors may think are relevant. However, we currently intend for the foreseeable future to follow a policy of retaining all of our earnings, if any, to finance the development and expansion of our business and, therefore, do not expect to pay any dividends on our common stock in the foreseeable future.

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Equity Compensation Plan Information

The following table summarizes as of December 31, 2005, the number of securities to be issued upon the exercise of outstanding derivative securities (options, warrants, and rights); the weighted-average exercise price of the outstanding derivative securities; and the number of securities remaining available for future issuance under our equity compensation plans.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants, and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders(1)	2,100,000	$ 1.62	1,900,000
Equity compensation plans not approved by security holders	475,000(2)	$ 1.15	-0-
Total	2,575,000	$ 1.54	1,900,000

(1) These plans consist of our 2001 Stock Option Plan and 2005 Stock Incentive Plan.
(2) Represents warrants to purchase shares of our common stock issued to our consultants.

MANAGEMENT'S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION

Overview

On October 30, 2003, we completed a reorganization (the "Reorganization") in which Arbios Technologies, Inc., or ATI, our operating company, became our wholly-owned subsidiary. At the time of the Reorganization, we had virtually no assets and virtually no liabilities (prior to the Reorganization we were an e-commerce based company engaged in the business of acquiring and marketing historical documents). Shortly after the Reorganization, we changed our name to "Arbios Systems, Inc." In the Reorganization, we also replaced our officers and directors with those of ATI. Following the Reorganization, we ceased our e-commerce business, closed our former offices, and moved our offices to Los Angeles, California. We currently do not plan to conduct any business other than the business of developing liver assist devices that Arbios Systems, Inc. has conducted since its organization. In July 2005, we merged ATI into the parent company, Arbios Systems, Inc.

Although we acquired ATI in the Reorganization, for accounting purposes, the Reorganization was accounted for as a reverse merger since the stockholders of ATI acquired a majority of the issued and outstanding shares of our common stock, and the directors and executive officers of ATI became our directors and executive officers. Accordingly, the financial statements contained in this prospectus, and the description of our results of operations and financial condition, reflect (i) the operations of ATI alone prior to the Reorganization, and (ii) the combined results of this company and ATI since the Reorganization. No goodwill was recorded as a result of the Reorganization.

Since the formation of ATI in 2000, our efforts have been principally devoted to research and development activities, raising capital, and recruiting additional scientific and management personnel and advisors. To date, we have not marketed or sold any product and have not generated any revenues from commercial activities, and we do not expect to generate any revenues from commercial activities during the next 12 months. Substantially all of the revenues that we have recognized to date have been Small Business Innovation Research grants (in an aggregate amount of $321,000) that we received from the United States Small Business Administration.

Our current plan of operations for the next 12 months primarily involves research and development activities, including clinical trials for SEPET™, and the preparation and submission of applications to the FDA. We submitted an investigational device exemption, or IDE, application for SEPET™ in March 2005 and commenced clinical studies for SEPET™ in the third quarter of 2005. We also intend to reactivate work on the HepatAssist bioartificial liver system by modifying the FDA-reviewed Phase III IND protocol. Because the anticipated cost of conducting clinical studies for the HepatAssist-2™ system exceeds our current financial resources, we will not, however, be able to commence clinical studies for the HepatAssist-2™ system until we raise additional capital. The actual amounts we may expend on research and development and related activities during the next 12 months may vary significantly depending on numerous factors, including the results of our clinical studies and the timing and cost of regulatory submissions. However, based on our current estimates, we believe that we have sufficient financial resources to conduct our planned operations for at least the next 12-month period following the date of this prospectus. We will, however, have to obtain significant additional funds during that period. We do not expect to make any purchases or sales of plant or significant equipment during the next twelve months, nor do we expect any significant changes in the number of employees during that period.

Our research offices and laboratories are located at Cedars-Sinai Medical Center, Los Angeles, California. In April 2005, we leased an additional 1,680 square foot facility in Woodstock, Connecticut to be used for swine housing and tissue procurement. We maintain our administrative offices in Los Angeles, California and Waltham, Massachusetts.

In April 2004 we purchased certain assets of Circe Biomedical including a portfolio of patents, rights to a bioartificial liver (HepatAssist), a Phase III IND, selected equipment, clinical and marketing data, and over 400 standard operating procedures and clinical protocols that have previously been reviewed by the FDA. The purchase price paid for these

assets was $450,000, which amount has now been fully paid.

Critical Accounting Policies

Management's discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, management evaluates its estimates, including those related to revenue recognition, impairment of long-lived assets, including finite lived intangible assets, accrued liabilities and certain 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 materially from these estimates under different assumptions or conditions.

Our significant accounting policies are summarized in Note 1 to our audited financial statements for the year ended December 31, 2005. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements:

Development Stage Enterprise

We are a development stage enterprise as defined by the Financial Accounting Standards Board's ("FASB") Statement of Financial Accounting Standards ("SFAS") No. 7, "Accounting and Reporting by Development Stage Enterprises." We are devoting substantially all of our present efforts to research and development. All losses accumulated since inception have been considered as part of our development stage activities.

Short Term Investments

Short-term investments generally mature between three and twelve months. Short term investments consist of U.S. government agency notes purchased at a discount with interest accruing to the notes full value at maturity. All of our short-term investments are classified as available-for-sale and are carried at fair market value which approximates cost plus accrued interest.

Patents

In accordance with FASB No. 2, the costs of intangibles that are purchased from others for use in research and development activities and that have alternative future uses are capitalized and amortized. We capitalize certain patent rights that are believed to have future economic benefit. The licensed capitalized patent costs were recorded based on the estimated value of the equity security issued by us to the licensor. The value ascribed to the equity security took into account, among other factors, our stage of development and the value of other companies developing extracorporeal bioartificial liver assist devices. These patent rights are amortized using the straight-line method over the remaining life of the patent. Certain patent rights received in conjunction with purchased research and development costs have been expensed. Legal costs incurred in obtaining, recording and defending patents are expensed as incurred.

Stock-Based Compensation

SFAS No. 123, "Accounting for Stock-Based Compensation," as in effect prior to December 2004, established and encouraged the use of the fair value based method of accounting for stock-based compensation arrangements under which compensation cost is determined using the fair value of stock-based compensation determined as of the date of grant and is recognized over the periods in which the related services are rendered. The statement also permitted companies to elect to continue using the current intrinsic value accounting method specified in Accounting Principles Board ("APB") Opinion No. 25, "Accounting for Stock Issued to Employees," to account for stock-based compensation. Until December 31, 2005, we used the intrinsic value based method and have disclosed the pro forma effect of using the fair value based method to account for our stock-based compensation. For non-employee stock based compensation, we recognized an expense in accordance with SFAS No. 123 and value the equity securities based on the fair value of the security on the date of grant. The fair value of expensed options is estimated using the Black-Scholes option-pricing model. In December 2004, the FASB issued SFAS No. 123 (revised 2004), “Share-Based Payment”. Statement 123(R) requires that the compensation cost relating to a wide range of share-based payment transactions (including stock options) be recognized in financial statements. That cost will be measured based on the fair value of the equity instruments issued. Statement 123(R) replaces FASB Statement No. 123 and supersedes APB Opinion No. 25. As a small business issuer, we will be required to apply Statement 123(R) to reporting periods that begin on January 1, 2006.

Commencing January 1, 2006 we adopted Statement of Financial Accounting Standard No. 123R, Share Based Payment ("SFAS 12R"), which requires all share-based payments, including grants of stock options, to be recognized in the income statement as an operating expense, based on fair values.

Prior to adopting SFAS 123R, we accounted for stock-based employee compensation under Accouting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," as allowed by SFAS No.123R, "Accounting for Stock-Based Compensation." Accordingly, periods prior to adoption have not been restated.

New Accounting Pronouncements

In December 2004, the FASB issued SFAS 123(R) (revised 2004), “Share-Based Payment.” SFAS 123(R) provides investors and other users of financial statements with more complete and neutral financial information by requiring that the compensation cost relating to share-based payment transactions be recognized in financial statements. That cost is measured based on the fair value of the equity or liability instruments issued. SFAS 123(R) covers a wide range of share-based compensation arrangements including share options, restricted share plans, performance-based awards, share appreciation rights, and employee share purchase plans. SFAS 123(R) replaces SFAS No. 123, “Accounting for Stock-Based Compensation”, and supersedes APB Opinion No. 25, Accounting for Stock Issued to Employees. SFAS 123, as originally issued in 1995, established as preferable a fair-value-based method of accounting for share-based payment transactions with employees. However, SFAS 123(R) permits entities the option of continuing to apply the guidance in APB Opinion 25, as long as the footnotes to financial statements disclosed what net income would have been had the preferable fair-value-based method been used. Our company began implementing SFAS 123(R) as of January 1, 2006, and the projected additional expense is approximately $400,000 based upon options granted as of December 31, 2005.

In March 2005, the Securities and Exchange Commission (SEC) issued Staff Accounting Bulletin No. 107 (SAB 107) regarding the Staff's interpretation of SFAS 123(R). This interpretation expresses the views of the Staff regarding the interaction between SFAS 123(R) and certain rules and regulations and provides the Staff's views regarding the valuation of share-based payment arrangements for public companies. In particular, this SAB provides guidance related to share-based payment transactions with no employees, the transition from nonpublic to public entity status, valuation methods, the accounting for certain redeemable financial instruments issued under share-based payment arrangements, the classification of compensation expense, non-GAAP financial measures, first-time adoption of SFAS 123(R) in an interim period, capitalization of compensation cost related to share-based payment arrangements, the

accounting for income tax effects of share-based payment arrangements upon adoption of SFAS 123(R), the modification of employee share options prior to adoption of Statement 123(R) and disclosures in Management's Discussion and Analysis subsequent to adoption of SFAS 123(R). Our company adopted SAB 107 in connection with its adoption of SFAS 123(R).

In May 2005, the FASB issued SFAS 154, “Accounting Changes and Error Corrections - a replacement of APB Opinion No. 20 and FASB Statement No. 3.” SFAS 154 replaces APB Opinion No. 20, “Accounting Changes,” and FASB Statement No. 3, “Reporting Accounting Changes in Interim Financial Statements” and changes the requirements for the accounting for and reporting of a change in accounting principles. This statement applies to all voluntary changes in accounting principle. It also applies to changes required by an accounting pronouncement in the unusual instance that the pronouncement does not include specific transition provisions. When a pronouncement includes specific transition provisions, those provisions should be followed. SFAS No. 154 is effective for accounting changes and corrections of errors made in fiscal years beginning after December 31, 2005.

In February of 2006 the Financial Accounting Standards Board issued Statement No. 155, "Accounting for Certain Hybrid Financial Instruments: an amendment of FASB Statements Numbers 133 and 140". Management is currently evaluating the effect, if any, that such pronouncement will have on accounting for our company's equity instruments which were issued with detachable warrants.

Results of Operations

Comparison of Three-Month Period ended March 31, 2006 to Three-Month Period ended March 31, 2005.

Since we are still developing our products and do not have any products available for sale, we have not yet generated any revenue from sales. Inception to date revenue represents revenue recognized from a government research grant.

General and administrative expenses of $744,000 and $874,000 were incurred for the three months ended March 31, 2006 and 2005, respectively. General and administrative expenses for the three months ended March 31, 2006 declined by $130,000 over the prior year level. This decrease is primarily attributed to a $283,000 decline in non-cash option and warrant charges, offset in part by increases in payroll expenses and various administrative expenses, including investor relations, employee travel, insurance and other administrative costs. The increases in payroll costs and other administrative expenses are a result of the increasing number of employees that were employed. Since the Company’s activities are increasing, its general and administrative expenses are expected to increase as compared to prior comparable periods.

Research and development expenses of $366,000 and $258,000 were incurred for the three months ended March 31, 2006 and 2005, respectively. The research and development expenses for the three months ended March 31, 2006 increased by $108,000 over the comparable prior year’s levels primarily as a result of $95,000 in increased payroll costs, $50,000 in costs related to the HepatAssist-2™ program and facility costs, and $43,000 in consultant costs. These costs are offset in part by a decline in non-recurring employee loan-out costs of $70,000 from Cedars-Sinai Medical Center. The staffing increases include hiring a Vice President of Operations and increased staff which replaced employee loan-out costs from Cedars-Sinai Medical Center. Consulting costs include outside services for manufacturing, regulatory, clinical and coordinators.

Interest income of $41,000 and $11,000 was earned for the three months ended March 31, 2006 and 2005, respectively. The increase in interest income primarily reflects increase in short term interest rates over prior year levels and the investment of available funds in short term investments.

Our net loss was $1,069,000 and $1,122,000 for the three months ended March 31, 2006 and 2005, respectively. The decrease in net loss for the three-month period ended March 31, 2006 compared to the comparable period in 2005 is attributable to a decrease in general and administrative expenses and an increase in interest income offset in part, by an increase in research and development costs.

Comparison of Fiscal Year ended December 31, 2005 to Fiscal Year ended December 31, 2004.

Revenues for fiscal year 2004 of $72,030 represent revenues recognized from government research grants that we have received.

General and administrative expenses of $2,394,546 and $1,988,763 were incurred for the years ended December 31, 2005 and 2004, respectively. For the year ended December 31, 2005, the expenses include $745,000 in fees incurred to outside consultants, professionals and board member fees, $509,000 in payroll and payroll related costs, $477,000 in non-cash option and warrant charges for grants awarded to consultants, $187,000 in investor relation costs and other administrative expenses. For the year ended December 31, 2004, the expenses include $945,000 in non-cash option and warrant charges for grants awarded to consultants, $587,000 in fees incurred to outside consultants and professionals, and $179,000 in salaries and other administrative expenses. Professional fees increased in 2005 due to consulting services for marketing, recruiting fees, and board of directors fees. The reduction in non-cash option and warrant charges reflect the lower stock price in 2005 and fewer option and warrant grants in 2005. The 2005 increase in payroll and payroll related expenses reflects the hiring of an interim and later a permanent Chief Executive Officer in 2005 and employee bonuses.

Research and development expenses of $1,554,509 and $1,426,379 were incurred for the years ended December 31, 2005 and 2004, respectively. Research and development expenses for 2005 consist primarily of $414,000 in payroll and payroll related expenses, $362,000 in SEPET™ development, manufacturing and clinical costs, $226,000 in consultant costs related to manufacturing, regulatory and product management, $141,000 in employee costs from Cedars-Sinai and $108,000 in HepatAssist2™ facility costs. Research and development expenses for the 2004 consist primarily of $450,000 of purchased research and development from Circe Biomedical, Inc., $282,000 incurred for various research and development consultants for manufacturing, regulatory and product management, $281,000 in employee costs from Cedars-Sinai, $151,000 in SEPET™ and HepatAssist2™ development costs and $101,000 non cash option grant charges for options awarded to scientific consultants. Research and development costs increased by $128,130 from 2004 to 2005 and reflect increased expenditures for both the SEPET™ and HepatAssist2™ programs and increased payroll costs as we increased staff which replaced employee costs from Cedars-Sinai and certain consulting costs and the write off of certain patents which have no future commercial use or economic benefit to us.

Interest income of $125,286 and $16,132 was earned for the years ended December 31, 2005 and 2004 respectively. The increase in interest income of $109,154 results from the increase in short term interest rates and higher cash balances maintained in 2005. In January 2005, we raised gross proceeds of $6,611,905 in the private placement of our securities which resulted in the higher cash balances in 2005. Our net loss increased to $3,823,903 in 2005 from $3,327,827 in 2004. The increase in net loss is attributed to an increase in operating expenses incurred in the fiscal 2005 periods as compared to the same periods in 2004, without an increase in revenues.

Liquidity and Capital Resources

As of March 31, 2006, we had cash of $1,884,000, short term investments of $2,976,000 and $288,000 of total indebtedness. We do not have any bank credit lines. To date, we have funded our operations primarily from the sale of debt and equity securities and to a lesser extent, SBIR government grants.

On March 6, 2006, we completed a $1,350,000 private equity financing to a group of institutional investors and an accredited investor. In the offering, we sold 1,227,272 shares of our common stock at a price of $1.10 per share to the investors and issued to them 5-year warrants to purchase an additional 613,634 shares of our common stock at an exercise price of $1.50 per share.

Based on our current plan of operations and the funds raised from the private placement in March 2006, we believe that our current cash balances will be sufficient to fund our operations for the next twelve months from the date of this report.

We do not currently anticipate that we will derive any revenue from either product sales or from governmental research grants during the next twelve months. The cost of completing the development of our products and of obtaining all required regulatory approvals to market our products is substantially greater than the amount of funds we currently have available and substantially greater than the amount we could possibly receive under any governmental grant program. As a result, we will have to obtain significant additional funds after the date of this report. We currently expect to attempt to obtain additional financing through the sale of additional equity and possibly through strategic alliances with larger pharmaceutical or biomedical companies. We cannot be sure that we will be able to obtain additional funding from either of these sources, or that the terms under which we obtain such funding will be beneficial to this Company.

The following is a summary of our contractual cash obligations for the following fiscal years:

Contractual Obligations	Total	2006	2007	2008 and thereafter
Long-Term Leases	$318,000	$208,000	$110,000	$ -

We do not believe that inflation has had a material impact on our business or operations.

We do not engage in trading activities involving non-exchange traded contracts. In addition, we have no financial guarantees, debt or lease agreements or other arrangements that could trigger a requirement for an early payment or that could change the value of our assets.

Off- Balance Sheet Arrangements

We are not a party to any off-balance sheet arrangements.

BUSINESS

Products Overview

We currently have two products under development; a novel extracorporeal blood purification therapy called the SEPET™ Liver Assist Device and an extracorporeal, bioartificial liver therapy referred to as the HepatAssist-2™ Bioartificial Liver System that incorporates pig liver cells, or porcine hepatocytes.

SEPET™ is a single-use cartridge that contains specially designed microporous tubes called hollow fibers. When a patient's blood is pumped through these hollow fibers, substances normally metabolized by the liver and accumulated in the blood during liver failure move across the porous wall and are discarded. As a result of this blood purification, or detoxification, process, we believe that the levels of pathological blood components will move toward normal ranges, leading to amelioration of liver failure and stabilization or improved function of a patient's liver. SEPET™ was designed and qualified for use with the PRISMA hemodialysis system (manufactured by Gambro, Inc.) and for use with other commercially available kidney dialysis units and/or plasma apheresis systems that utilize hollow-fiber cartridges.

In April 2004, we acquired from Circe Biomedical, Inc., an unaffiliated biomedical company, the rights to a bioartificial liver, known as the HepatAssist® system. Certain technologies included in the HepatAssist® bioartificial liver were designed and tested in pre-clinical and early clinical studies by Drs. A. A. Demetriou and J. Rozga, who later founded Arbios Systems, Inc. Our HepatAssist-2 Bioartificial Liver System utilizes a single-use cartridge that contains pig liver cells plus columns that contain certain chemical particles referred to as sorbents. When a patient's blood is pumped through the bioartificial liver cartridge, substances normally metabolized by the liver and accumulated in the blood during liver failure move across the porous tubes into two plasma compartments; one compartment is filled with pig liver cells and the other compartment incorporates columns that contain sorbents. The exposure of the viable pig liver cells to patient plasma causes toxic substances contained in the plasma to be metabolized, thereby reducing their level. In addition, the sorbents lower the level of pathological blood components, such as ammonia. At the same time, substances produced by pig liver cells move across the porous wall back into the blood compartment. As a result of these two processes (provision of whole liver functions by the pig liver cells and removal of toxins by the sorbents) we believe the levels of pathological and normal blood components will move toward normal ranges. Our belief is supported by the results of tests performed during clinical trials using the HepatAssist® system.

Our HepatAssist-2™ Bioartificial Liver System is similar to the earlier HepatAssist® system, and we have subsequently enhanced it by employing a larger quantity of pig cells. We do not anticipate that HepatAssist-2™ will use the proprietary perfusion platform, which is a machine through which the patient's blood is circulated, that was originally designed and developed for the HepatAssist® system. Instead, we are testing a perfusion platform known as the PERFORMER for use as the platform to provide bioartificial liver therapy. The PERFORMER is a multi-function integrated system capable of supporting extracorporeal blood/plasma/fluid circulation therapies that is manufactured by RanD S.r.l. (Italy) and distributed world-wide by Medtronic, Inc. The PERFORMER has been equipped with proprietary software and a tubing set for use with our HepatAssist-2™ Bioartificial Liver System.

Both SEPET™ and HepatAssist-2™ rely on single-use cartridges that are placed on a blood perfusion apparatus that is attached to the patient's blood circulation system. Following treatments with any of our products, the disposable cartridges are discarded, and new cartridges are used for the next therapy.

Background of our Company

Arbios Technologies, Inc., our former operating subsidiary, was formed in August of 2000 by Drs. A. A. Demetriou and J. Rozga, two leaders in the field of artificial liver therapy, to develop extracorporeal therapies for the treatment of liver failure. As former employees of Cedars-Sinai Medical Center, Drs. Demetriou and Rozga previously were involved in the development of a first generation bioartificial liver known as HepatAssist® that was licensed by Cedars-Sinai Medical Center in 1994 to W.R. Grace & Co. and then subsequently transferred to Circe Biomedical, Inc. The prior owners of this technology spent millions of dollars on the research and development of the original HepatAssist® system, the perfusion platform and on the related technologies and operating procedures necessary to bring the product to market. The original HepatAssist® system was tested in Phase II/III clinical trials approved by the FDA in patients with fulminant and subfulminant liver failure and primary non-function following liver transplantation. These trials of the original HepatAssist® system were the first large (171 patients) prospective, randomized, controlled multi-center trial demonstrating a survival advantage for an extracorporeal liver assist system utilizing pig liver cells. Although treated fulminant/subfulminant hepatic failure patients with viral and drug-induced liver injury retrospectively demonstrated improved survival compared to controls when adjusted for the effect of confounding factors (such as liver transplantation), the prospective primary clinical end point in the overall study population (survival at 30 days post-transplantation) was not achieved. Accordingly, the HepatAssist® system was not approved for marketing, and the FDA requested that a new Phase III clinical study be performed. A new Phase III protocol was prepared and reviewed by the FDA. However in 2003, before these new studies could be undertaken, Circe Biomedical ceased its operations. In April 2004, we purchased the remaining assets of Circe Biomedical that related to its bioartificial liver operations, including rights to the original HepatAssist® system, the new Phase III protocol that had been reviewed by the FDA, and over 400 manufacturing and quality control and quality assurance standard operation protocols previously reviewed by FDA. In July 2005, we merged Arbios Technologies, Inc. into the parent company, Arbios Systems, Inc.

To date, we have funded our operations from the gross proceeds of funds we raised from the sale of over $13,000,000 of our equity securities and $321,000 of Small Business Innovation Research, or SBIR, grants that have been awarded by the United States Small Business Administration. We intend to apply for additional SBIR grants to fund a portion of our research expenditures. However, whether or not we receive additional SBIR grants, we will have to raise substantial additional proceeds to fund our future clinical development expenses and our on-going working capital needs.

Our research offices and laboratories are located at Cedars-Sinai Medical Center, Los Angeles, California. Under our lease agreement and other arrangements with Cedars-Sinai, we have access to all of the key development resources of that leading medical center, including animal facilities, surgical core facilities and clinical laboratories. Cedars-Sinai Medical Center is one of the clinical testing sites for our SEPET™ clinical testing program. We also lease administrative office space in Los Angeles, California and Waltham, Massachusetts, as well as an animal breeding and cell manufacturing facility in Woodstock, Connecticut which will be used to harvest porcine livers for use in our HepatAssist-2™ product.

We have also entered into various agreements with Spectrum Laboratories, Inc., including research and development agreements and manufacturing agreements. Spectrum Laboratories is a company that specializes in the development and manufacture of innovative molecular separation products for the research community and is a supplier of dialysis and ultrafiltration membranes used for biomedical research, molecular biology and clinical diagnostics throughout the world.

Strategy

We believe that the clinical testing and regulatory approval periods for the SEPET™ Liver Assist Device will be shorter than our HepatAssist-2™ Bioartificial Liver System because SEPET™ may be evaluated as a medical device that does not contain biological components such as the pig cells that are an integral part of our HepatAssist-2™ product. Accordingly, because of the shorter regulatory period and the ability of SEPET™ to operate through the use of a standard, currently available kidney dialysis unit, we expect that the development of SEPET™ will be completed before the development of HepatAssist-2™ is completed.

We have already performed *in vitro* and *in vivo* testing of the SEPET™ prototype device and commenced clinical testing of SEPET™ during 2005. We anticipate that we will be able to file an application requesting market approval of SEPET™ as early as late 2007. We are currently evaluating the possibility of conducting clinical studies of the HepatAssist-2™ system under a modified version of the FDA-reviewed Phase III IND protocol that we acquired in March 2004 from Circe Biomedical. Since we are still currently developing our clinical and regulatory strategies for the HepatAssist-2™ Bioartificial Liver System, we cannot estimate when an application requesting marketing approval of that system will be filed.

The April 2004 acquisition of the assets of Circe Biomedical has provided us with new potential opportunities for the development of a bioartificial liver. The Circe Biomedical bioartificial liver device that we acquired consisted of the following four distinct components that we believe may be useful to the development of our bioartificial liver products:

(1) *FDA-approved standard operating procedures*. These are standard operating procedures for production of porcine cells including harvesting, freezing, storing, shipping and processing by the end user (thawing, washing) of the cells. These procedures and protocols have been reviewed by the FDA.

(2) *The cartridge used in the Phase III trial of HepatAssist™*. We intend to use the existing, FDA-approved cartridge, and intend to seek the FDA's approval to increase the number of pig cells that the cartridge could contain, which increase we believe will improve the functionality of the system.

(3) *An FDA reviewed Phase III protocol acquired from Circe Biomedical*. We may modify this protocol and submit the modified protocol to the FDA for approval.

(4) *The HepatAssist™ perfusion platform.* The HepatAssist perfusion platform is Circe Biomedical's specially designed machine that pumped the patient's plasma through the HepatAssist cartridge. This machine was used in the Phase II/III trial of HepatAssist.

Rather than using Circe Biomedical's specially designed machine, we intend to use the PERFORMER, a commercially available machine that is distributed by Medtronic, Inc. We are currently testing units of The PERFORMER that have been equipped with proprietary software and our tubing to enable the machine to work with our bioartificial liver products. We believe that the PERFORMER may become the platform for our HepatAssist-2™ Bioartificial Liver System.

We are currently in the process of designing further clinical trials to demonstrate the safety and tolerability of SEPET™ in treating patients with acute exacerbation of chronic liver failure. In April 2005 we received permission from the FDA to commence a 15-patient clinical feasibility study for SEPET™. The FDA has since given permission to expand the trial to a total of up to four clinical sites and up to 20 patients. Based on our current assumptions, we estimate that the clinical cost of developing SEPET™ will be approximately $5 million to $10 million and the clinical cost of developing HepatAssist-2™ will be between $15 million and $20 million. These amounts, which could vary substantially if our assumptions are not correct, are well in excess of the amount of cash that we currently have available to us. See “Management’s Discussion and Analysis or Plan of Operation - Factors that May Affect Future Results and Market Price of Our Stock.”

Liver Function Background

The liver controls, or affects, almost every aspect of metabolism and most physiologic regulatory processes, including protein synthesis, sugar and fat metabolism, blood clotting, the immune system, detoxification of alcohol, chemical toxins, and drugs, and waste removal. Loss of liver function is a devastating and life threatening condition. Liver failure affects all age groups and may be due to many causes, including viral infection, hepatitis, ingestion of common medications, alcohol, and surgical liver removal for trauma and cancer.

Currently, there is no direct treatment for liver failure, except a successful liver transplant. There is, however, a current scarcity of donor livers, and approximately two thousand patients on the waiting list for donor livers die annually before receiving liver transplants. Our management believes that treatments with currently available technologies such as blood detoxification methods are short-term measures, and none of them has achieved wide clinical use or ability to arrest or reverse liver failure and improve survival. As a consequence, liver failure patients must still either undergo liver transplantation or endure the probability of prolonged hospitalization with a low probability of survival. In addition, many patients do not qualify for transplantation or live in regions of the world where transplantation is not readily available. Still others do not recover after transplantation because of irreversible brain damage or other organ damage caused by liver failure. Although the liver has a remarkable capacity for regeneration, the repair process after massive liver damage is markedly impaired by the continued presence of toxins, inflammatory cytokines and other inhibitors of organ regeneration still present in the blood of patients.

In liver failure patients, there is a need for an effective blood purification therapy that will clear the blood of toxins, mediators of inflammation and inhibitors of hepatic growth. SEPET™ is a novel form of such therapy developed by us in which the plasma fraction containing substances that are toxic to the brain, the liver and other internal organs and tissues are removed from patient blood and replaced with normal human plasma. We have demonstrated an extension of survival in large animal model testing of SEPET™, which results have led to the initiation of a clinical feasibility trial in human patients.

There is a further need to develop artificial means of liver replacement with the aim of either supporting patients with borderline functional liver cell mass until their liver regenerates or until a donor liver becomes available for transplantation. Such an “artificial liver” should also support patients during recovery after transplantation with marginal livers and after extended liver resections for trauma or cancer. To achieve these effects, effective liver support systems should be able to lower blood levels of substances toxic to the brain and liver and to provide whole liver functions, which are impaired or lost.

The founders of this company as well as investigators not associated with this company have demonstrated *in vitro* and in animal models of liver failure that cell-based bioartificial livers using viable isolated liver cells, or hepatocytes, can provide whole liver functions. However, only a few bioartificial livers have been tested in humans and it remains to be seen whether systems utilizing hepatocytes as the only means of liver support are effective. We believe that in order to provide the maximum support for the failing liver, porcine hepatocyte therapy should be combined with blood purification or detoxification.

Our bioartificial liver system, HepatAssist-2™, was designed to become an advanced effective application of the basic bioartificial liver concept. In the bioartificial liver system, liver cell therapy in the form of porcine hepatocytes, is combined with blood detoxification, in the form of sorbent based plasma therapy. Depending on the cause of liver disease, severity of illness and deficiency of specific liver functions, the bioartificial liver mode of therapy can be provided individually, simultaneously or sequentially. Because of these features, we believe our bioartificial liver technology is well suited to treat patients with liver failure of all causes and severity, including those requiring maximum liver support. While the HepatAssist-2™'s predecessor HepatAssist Phase II/III clinical trial demonstrated an increase in patient survival in patients with viral and drug-induced fulminant/subfulminant hepatic failure, a new Phase III clinical trial will be needed before our HepatAssist-2™ system, which is an enhanced version of the original HepatAssist system, can be used by human patients. Pre-clinical data for our HepatAssist-2™ Bioartificial Liver System indicates that this system can improve heart rate and blood pressure and provide clearance of ammonia and indocyanine green (ICG), which is a liver function test.

The Products We Are Developing

We currently are developing novel treatments for acute and chronic liver failure. We believe that our SEPET™ Liver Assist Device and our HepatAssist-2™ Bioartificial Liver System may:

· help keep liver failure patients alive and neurologically intact before, during and immediately after transplantation;

· allow other patients to recover liver functionality and to survive without a transplant (a "bridge" to liver regeneration);

· support patients during periods of functional recovery and regeneration after extensive removal due to liver trauma and/or cancer;

· accelerate recovery from acute exacerbation of chronic liver disease;

· shorten length of stay in intensive care units;

· shorten hospital stay;

· reduce the cost of care; and

· reduce intractable itching associated with severe jaundice.

We believe that our SEPET™ Liver Assist Device and HepatAssist-2 Bioartificial Liver System can achieve these effects because they can lower blood levels of substances that are toxic to both the brain and liver. However, final proof of clinical benefit in patients is lacking at this time, and the clinical utility of these products still needs to be demonstrated in patients with acute liver failure.

We own certain technologies and rights related to our products, and have licensed certain other technologies. See "-Patents and Proprietary Rights" below for a description of the rights that we own and have licensed.

SEPET™

We are developing the SEPET™ Liver Assist Device as a blood purification measure to provide temporary liver support during acute liver failure and acute exacerbation of chronic liver disease. SEPET™ therapy will be provided through the sale of our single-use, disposable cartridge that contains a bundle of hollow fibers made of bio- and hemo-compatible material capable of sieving substances with molecular weight of up to 100 kilodaltons, or kDa. The importance of using fibers with this sieving characteristic, which is larger than for conventional renal dialysis cartridges, is that most hepatic failure toxins as well as mediators of inflammation and inhibitors of hepatic regeneration have a molecular weight that is less than 100 kDa, while "good" blood components, for the most part, have molecular weight greater than 100 kDa. At present, Spectrum Laboratories is the manufacturer of these disposable cartridges. See "—Manufacturing" below. The SEPET™ system is designed for use with any commercially available kidney dialysis unit or other similar machines that utilize hollow-fiber cartridges. Accordingly, no specialized apparatus needs to be developed or manufactured for SEPET™. Accessory components for the SEPET™ system such as disposable tubings and connectors will mostly consist of standard components that are currently used in renal dialysis and provided by manufacturers of those systems. We expect that any new accessory components that may be required will be manufactured for us by third-party vendors.

During SEPET™ therapy, an ultrafiltrate containing toxins, inhibitors of hepatic growth and mediators of inflammation with molecular weight of 100 kDa or less will be removed from the patient's blood stream by exiting from the side port of the cartridge, while at the same time, intravenous electrolyte solutions, albumin solution, fresh frozen plasma, or a combination thereof will be administered to the patient. We believe that as a result of these two processes, the levels of pathological and normal blood components present in the patient's circulation will move toward normal ranges, thereby facilitating recovery from liver failure. Based on published medical literature, rapid and efficient blood detoxification is expected to protect the liver, brain and other organs against further injury, accelerate healing of the native liver and improve its residual functions.

HepatAssist2™ Bioartificial Liver System

Our current bioartificial liver system under development is the HepatAssist-2™ Bioartificial Liver System. We have designed our HepatAssist-2™ Bioartificial Liver System to provide temporary liver support during acute liver failure and acute exacerbation of chronic liver disease. The HepatAssist-2™ Bioartificial Liver System incorporates several proprietary components and technologies into an integrated liver assist system, including a hollow fiber cartridge with porcine hepatocytes and a plasma re-circulation circuit that incorporates a cell cartridge and sorbents. The HepatAssist-2™ Bioartificial Liver System is designed to (i) provide liver cell functions by utilizing viable pig liver cells that are housed in specially designed cartridges and (ii) detoxify blood. Since it has been scientifically established that pig liver cells perform liver functions when maintained in specially designed cartridges outside of the human body, our bioartificial liver cartridge is designed to bring human plasma into contact with viable pig liver cells in a manner similar to that observed in the normal human liver inside the body in order to provide liver functions to the patient. In addition, our bioartificial liver system is designed to lower the levels of pathological blood components (through activated charcoal or other purification sorbents).

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Critical to the HepatAssist-2™ technology is (i) the source and method of procurement of liver cells, (ii) the cryopreservation, or freezing, of the liver cells, (iii) the storage of the liver cells, (iv) the proprietary plasma re-circulation loop incorporating the cell cartridge and sorbents, and (v) the standard operating procedure protocols and quality control and programs related to the foregoing. We currently own or have licensed numerous proprietary technologies and methods for sourcing and using hepatocytes, which technologies and methods apply to our HepatAssist-2™ system. The following addresses our current plans and procedures regarding viable liver cells (hepatocytes).

Hepatocyte donors. Ideally, human hepatocytes should be used in a bioartificial liver. However, there is a shortage of organ donors and published data demonstrating that pig liver cells can outperform other animal and human liver cell lines, including those derived from liver cancers. In addition, use of human cancer-derived cells raises safety concerns. At this time, we intend to utilize pig liver cells.

Hepatocyte harvest. The founders of Arbios and Circe Biomedical developed certain semi-automated methods for large-scale harvest of pig hepatocytes. The methods of harvesting and collecting liver cells are covered by four patents, which patents we either have acquired from Circe Biomedical and now own or have licensed from Cedars-Sinai Medical Center.

Hepatocyte storage. Hepatocyte storage, quality control and shipment of cells to treatment sites are best achieved by use of cell freezing, or cryopreservation. Cryopreservation also provides greater protection from bacterial and viral contamination because frozen cells can be stored until microbiologic testing is completed and cells are then released for clinical use. Prior to use, cells are rapidly thawed and their viability is tested. The patented hepatocyte cryopreservation technology is now owned by us and by Cedars-Sinai Medical Center, which has licensed this technology to us.

The pig liver cells are expected to be harvested from young purpose-bred, pathogen-free, vaccinated pigs raised in the United States Department of Agriculture, or the USDA, certified facility specifically for biomedical research purposes. Each batch of cryopreserved pig liver cells will be released for clinical use only after proper verification of biosafety and viability/functionality of the cells. We acquired all of the required laboratory and quality assurance protocols from Circe Biomedical, which protocols were previously reviewed by the FDA and deemed to be in compliance with FDA requirements. We are currently leasing facilities in which we will be able to house and maintains pigs and surgically acquire their livers. The facilities, which are still under development, would be used to monitor the health of these pigs and to assure that the pigs and cells remain free from infection and meet specific FDA requirements and to harvest the pig livers. We believe that once suitable modifications and FDA approved leasehold improvements are implemented and completed, these facilities will be suitable to meet our near-term goals for maintaining and harvesting the number of pig livers that we expect to need until the commercial viability of our products is established.

HepatAssist-2™ is designed to be used in the same manner as any other plasma therapy device. In a typical clinical procedure, the operator will install bioartificial liver components consisting of the cell cartridge, oxygenator, sorbent detoxification column(s), and tubing kit, into the blood/plasmaperfusion platform. Approximately 15 billion viable pig hepatocytes will be seeded into the extra-fiber space through the cartridge side ports. At the start of treatment, the platform will be attached to the patient and the bioartificial liver system will be perfused with the patient's oxygenated plasma. At the end of treatment, the disposables will be discarded in the normal manner that all other biohazardous waste products (such as syringes and bandages) are handled and disposed. No special governmental regulations have been required, or are expected, to dispose of the used cartridges and disposable products.

We expect to demonstrate that during HepatAssist-2™ therapy, substances normally metabolized by the liver and accumulated in the blood during liver failure will diffuse freely across the porous membrane into the compartment containing pig liver cells. At the same time, products of pig liver cell metabolism will diffuse back into the plasma compartment and then into the blood circuit. It is anticipated that as a result of these two processes, the levels of pathological and normal blood components present in the patient's circulation will move toward normal ranges, thereby facilitating recovery from liver failure. Additional therapeutic benefits may be provided by blood purification, or detoxification, therapy. In this mode of therapy, small and large protein-bound toxins, which accumulate in the blood during liver failure, are expected to be removed by sorbents. Blood detoxification is believed to protect the liver, brain and other organs against further injury, accelerate healing of the native liver and improve its residual functions. Decreased blood toxicity is also expected to prolong the life and metabolic activity of pig hepatocytes in the bioartificial liver modules.

Product Advantages

We believe that SEPET™ as a blood purification therapy will be more effective than sorbent-based devices such as charcoal, resin and silica, and more effective than whole plasma exchange therapy, because only the plasma fraction containing known toxins of hepatic failure is being removed and discarded during SEPET™ therapy. In contrast, sorbent-based blood purification is not toxin-specific, and in the case of charcoal sorption it is limited because of the protective coating of the charcoal particles. It also fails to remove most mediators of inflammation and protein bound toxins from the blood which are associated with liver failure. Subject to the successful completion of clinical trials and FDA or other regulatory approval, we believe that SEPET™ will be able to be used with currently available hospital kidney dialysis systems, which may offer the following advantages:

- Ease of use. The systems bring user friendliness (e.g., pump integration, automation and an intuitive user interface) to traditionally complex liver support procedures.

- Simplicity. Kidney dialysis systems are routinely used and, therefore, there may be no need for extensive personnel training for use of these similar systems in SEPET™. They are also commonly available in intensive care units and other settings where SEPET™ may be used.

- Low cost. The cost of therapy is expected to be lower than with any other liver assist device that is currently under development because the machine to which the SEPET™ cartridge can be attached is a standard machine (such as a kidney dialysis machine) with commercially available tubing. Therefore, unlike other devices, no special equipment is required.

- No Intensive Care Unit needed to provide treatment. SEPET™ may become available for treatment of patients with a lower degree of liver failure outside of the intensive care unit setting. We do not believe that any changes will have to be made to SEPET™ or the dialysis system in order for SEPET™ to become available outside of intensive care unit settings.

To our knowledge, HepatAssist-2™ is the only liver assist device under development that is capable of providing both liver cell functions and blood purification either simultaneously or sequentially in a versatile and customized manner depending on the cause and severity of liver failure.

Drs. Demetriou and Rozga, the founders of Arbios and the major stockholders of the company, have previously demonstrated that cryopreserved pig hepatocytes remain alive (>80% viability) after thawing. Moreover, the hepatocytes quickly aggregate, forming liver-like 3-dimensional cellular units, and resume basic functions (e.g., drug metabolism) at levels comparable to those seen in intact livers. Drs. Demetriou and Rozga have also reported that treatment of animals and patients with fulminant hepatic failure with a bioartificial liver loaded with freshly thawed pig hepatocytes prolonged life, alleviated intracranial hypertension and improved blood chemistry. In addition, in experimental animals, bioartificial liver therapy improved native liver function and triggered mechanisms regulating liver regeneration. In addition, because porcine hepatocytes can be stored frozen at a clinical site, treatment with our bioartificial liver system can be commenced with two to three hours of patient consent and product preparation, thereby making this bioartificial liver therapy available on demand. In instances of liver failure, this rapid availability of therapy should be a critical competitive advantage. In contrast, we believe other liver assist devices under development require longer time for preparation prior to patient treatment (up to several days in some instances, including cumbersome means of shipment to the clinical site).

Clinical Utility

We believe that the animal and clinical data generated and published to date on the original HepatAssist™ system indicate that the basic concept of a bioartificial liver utilizing cryopreserved pig liver cells and blood detoxification is valid and that repeated six-hour bioartificial liver treatments are safe and yield measurable therapeutic benefits. Accordingly, we believe that our novel, next-generation products will represent improvements and/or enhancements of earlier technologies.

Our HepatAssist-2™ Bioartificial Liver System is an enhanced version of the original HepatAssist® system. The safety and efficacy of the original HepatAssist® system were evaluated in a prospective, randomized, controlled, multi-center FDA-approved clinical trial. A total of 171 patients, 86 in the control group, and 85 in the bioartificial liver group, were enrolled. Patients with fulminant and subfulminant hepatic failure and primary non-function following liver transplantation were included. Data were analyzed with and without accounting for the following confounding factors: liver transplantation during the survival endpoint period, time to liver transplant, cause of the disease or condition, disease severity, and treatment site. For the entire patient population, survival at 30 days was 71% for bioartificial liver compared to 62% for the control group. When survival was analyzed accounting for confounding factors such as liver transplantation and survival prior to transplantation, across the entire patient population, there was thus a trend towards improved survival but not a statistically significant difference between the two groups. However, survival in the 147 fulminant and subfulminant hepatic failure patients (i.e. excluding the primary non-function patients) was significantly higher in the HepatAssist™ Bioartificial Liver System group compared to the control group. Furthermore, HepatAssist™ therapy reduced the risk of pre-transplant death by 67% in patients with drug and chemical toxicity ($p<0.0140$) and by 47% in patients with rapid onset of fulminant hepatic failure ($n=121$; $p<0.0428$) To our knowledge, this was the first prospective, randomized, controlled trial of an extracorporeal liver support system that demonstrated safety and improved survival in patients with fulminant and subfulminant hepatic failure.

Market Opportunity

Based on the number of patients with liver diseases and lack of alternative direct therapy other than liver transplantation, we believe that there is an urgent need for artificial means of liver replacement and/or assistance to facilitate recovery from liver failure without a transplant. Effective liver support therapies could also help maintain liver failure patients' lives until an organ becomes available for transplantation. The SEPET™ Liver Assist Device and HepatAssist-2™ Bioartificial Liver System are designed to treat patients with liver failure across the range of all causes and severity, including acute exacerbation of chronic liver disease.

The patient and market opportunity is substantial and underserved. According to the American Liver Foundation, 25,000,000 Americans - one in every ten persons - are or have been suffering from liver and biliary diseases. According to the National Center for Health Statistics published for 2000, there were 360,000 hospital discharges for patients with chronic liver disease or cirrhosis plus additional patients categorized as suffering from viral hepatitis B or hepatitis C with likely liver failure sequellae. Of the 360,000 documented hospitalizations for chronic liver disease in the United States referenced above, 27,035 died (making liver failure the tenth leading cause of death in males and twelfth in females, and fourth leading cause of death in persons aged 45 - 54 years) because no donor liver was found or because they had contraindications to transplantation.

The mounting crisis of viral hepatitis B and hepatitis C is projected to continue to propel numbers of liver failure episodes as patients age and increasingly suffer hepatic decompensation. Approximately 3.9 million Americans are chronically infected with the hepatitis C virus, and an estimated 25,000 people each year are infected in the United States each year with the hepatitis C virus. At the same time, 10,000 - 12,000 deaths have occurred annually in the United States due to hepatitis C virus infection, and the number is likely rising. Hepatic decompensation, as a result of chronic hepatitis C virus infection, is now the leading cause of liver transplantation in the United States. Despite improved rates of organ donation, increased utilization of deceased donor livers and a resurgence in living donor transplants, the number of liver transplants performed yearly is now approximately 5,500. At the same time, in 2004 alone there were more than 10,000 new waitlist registrations for liver replacement. As of March 6, 2006, the liver transplant waiting list contained 17,650 individuals. According to National Institutes of Health and the American Association for the Study of Liver Diseases, 5,000 deaths occur annually as a consequence of hepatitis B virus infection.

Worldwide, hepatitis B is the leading cause of liver failure. Of the 2 billion people who have been infected with the hepatitis B virus, more than 350 million are estimated to have chronic, or lifelong, infections. These chronically infected persons are at high risk of death from cirrhosis of the liver and liver cancer. The World Health Organization estimates very large numbers of deaths worldwide from hepatitis B virus infection -- an estimated 880,000 per year from liver failure and another 320,000 per year from liver cancer (some of whom may require liver support therapy before and/or after surgical resection of the cancer). Infection is most common in Asia, Africa and Middle East. Hepatitis C is also a major cause of liver failure worldwide. According to the World Health Organization, globally, an estimated 170 million persons are chronically infected with the hepatitis C virus. At the same time, an estimated 3 to 4 million persons are newly infected each year. Liver failure has recently been cast, worldwide, as the third leading cause of death. In China and other Asian countries, liver disease represents a pressing health problem and the need for an effective liver support therapy is more urgent than in some other markets. Although epidemiological data on hepatitis C virus and hepatitis B virus infection in China are not publicly available, we believe there are approximately 200 million carriers of the hepatitis virus B or C in China, and primary liver cancer is a common malignancy.

At present, no direct treatment for liver failure is available and such patients must receive a liver transplant or endure prolonged hospitalization with significant mortality. Moreover, no prognostic test is available that would help predict which liver failure patient is likely to survive on medical therapy alone. Due to the critical nature of liver failure and the resulting adverse effects on other organs, the hospitalization costs can be as high as $20,000 per day. In fact, it is estimated that the in-patient cost of liver failure treatment can reach $200,000 per episode without a transplant. While liver transplants have significantly increased the chances of survival for patients with liver failure, due to a severe shortage of donor livers, less than 10% of liver failure patients received a transplant. Further, many liver failure patients were excluded from the waiting list because of alcohol or drug abuse, cancer, cardiovascular disease or inadequate post-operative support by family or others.

At this time, based on the preliminary information available to us, we estimate that the cost to the provider of a single treatment with the SEPET™ therapy could be within a $2,000 - $4,000 range and that the respective cost of the bioartificial liver therapy could be approximately $20,000 in the United States. Pricing in other world regions will likely vary. We anticipate that SEPET™ and/or bioartificial liver therapy may have to be repeated in some patients up to an average of five to seven times before a satisfactory clinical outcome is obtained, although fewer treatments per patient may be sufficient depending on the severity of disease. Based on these estimates and the above mentioned projections, the potential U.S. market for SEPET™ and HepatAssist-2™ is significant, with similar or possibly larger opportunities in some regions outside North America. However, we have not confirmed the potential size of these markets through an independent marketing study.

If we are successful in demonstrating the clinical utility of one or both of our products, liver failure patients treated with our products may be spared liver transplantation and the need for life-long immune-suppression. In addition, these patients can be treated outside of the intensive care unit and could be discharged from the hospital after shorter stays, all of which would reduce costs for healthcare providers and generate a demand for the use of these products.

Sales, Marketing & Distribution

We currently do not have any agreements in place to market any of our products if and when those products are commercially released, and we do not currently expect to establish an in-house marketing and sales program to distribute our products in all regions of the world. We currently expect to outsource at least a portion of the sales, marketing and distribution of our products to third parties who specialize in the sales, marketing and distribution of medical products. Alternatively, we may enter into strategic alliances with larger medical companies or license the rights to our products to such larger companies. We currently expect that our products will be marketed in at least North America, Europe and Asia.

Manufacturing

We currently do not have a manufacturing arrangement for the cartridges used in the HepatAssist-2™ system. However, the HepatAssist-2™ cartridge is based on a conventional single-bundle hollow-fiber technology and a number of third party manufacturers, including Spectrum Laboratories, could produce these cartridges for us under contract.

With respect to cartridges that we expect will be needed for SEPET™, we anticipate that such cartridges will be commercially manufactured by either Spectrum Laboratories or a manufacturer of clinical hemodialyzers. Additional disposable components, such as tubing kits, may also be manufactured by third party subcontractors.

The kidney dialysis hardware units that will be used as a platform for SEPET™ therapy are not expected to require any technical adjustments. Since pressure monitors and hemoglobin detectors are standard in kidney dialysis systems, additional safety features are not likely to be required. Since the existing kidney dialysis units will not be affected, only the kidney dialysis cartridge will be replaced by a SEPET™ cartridge, no consents will have to be obtained from the manufacturers of those units, and no additional insurance is expected to be required to use those units.

The platform we currently expect to use for the HepatAssist-2™ bioartificial liver therapy is a perfusion platform known as the PERFORMER. The PERFORMER is a multi-function integrated system capable of supporting extracorporeal blood/plasma/fluid circulation therapies that is manufactured by RanD S.r.l. (Italy) and distributed by Medtronic, Inc. The PERFORMER may be equipped with proprietary software, which has already been developed by RanD for Arbios, and a tubing set for use with our HepatAssist-2™ system.

The pig liver cells will be harvested from young purpose-bred, pathogen-free, vaccinated pigs raised in a USDA certified facility specifically designed for biomedical research purposes. The liver cells will be harvested and cryopreserved under aseptic conditions using our proprietary technology as well as commercially available equipment.

With regard to cell procurement and cryopreservation for bioartificial liver use, we do not yet own or lease our own specialized and certified bio-secure porcine liver cell manufacturing plant. Prior to of Phase III clinical testing of HepatAssist-2™, we will determine whether to build a cell procurement facility to meet the expected requirements for commercial sales, which will require a substantial lease obligation and/or capital investment. This decision will be based on technical evaluation of the project as well as an economic evaluation of company performance.

In December 2001 we entered into a manufacturing and supply agreement with Spectrum Laboratories, Inc. for the future manufacture a portion of our LIVERAID™ product, a potential variation on the HepatAssist™ product design. The LIVERAID™ cartridge is a bioartificial liver similar to the HepatAssist cartridge with the exception of its fiber within a fiber design. Under that agreement, we agreed that Spectrum Laboratories will manufacture the hollow fiber cartridges with fiber-in-fiber geometry that we will need for the LIVERAID™ bioartificial liver. The agreement provides that the price of the hollow fiber-in-fiber cartridges to be sold by Spectrum Laboratories to us will be determined by good faith negotiations between the parties. We have agreed that we will not purchase cartridges with fiber-in-fiber geometry from any other manufacturer unless Spectrum Laboratories is either unable or unwilling to manufacture the cartridges. The final step in manufacturing the LIVERAID™ cartridges is completed manually, which has resulted in a high incidence of rejected cartridges and a lengthy manufacturing period. These problems, if not remedied, may limit the amount and timeliness of cartridges that can be manufactured. Spectrum Laboratories has informed us that it can, and is willing to, acquire or develop an automated manufacturing process for the LIVERAID™ cartridges. However, since such an automated manufacturing process is expensive, Spectrum Laboratories has not yet undertaken to acquire or develop the necessary equipment and technology. No assurance can be given that Spectrum Laboratories will, in fact, be able to acquire or develop an automated manufacturing process or that Spectrum Laboratories will otherwise be able to satisfy our needs for the LIVERAID™ cartridges. In the event that Spectrum Laboratories is either unable or unwilling to manufacture the amount of LIVERAID™ cartridges that we need, we will have to find one or more alternative manufacturers for the cartridges. While we have identified other possible manufacturers of the LIVERAID™ cartridges, it is uncertain if any of those other companies would want to manufacture the cartridges for us, and if so,

on what terms. As such, we have decided to stop further development of the LIVERAID™ technology indefinitely and focus on the HepatAssist-2™ product.

Patents and Proprietary Rights

Bioartificial Liver Rights. We originally obtained exclusive, worldwide rights from Cedars-Sinai Medical Center and Spectrum Laboratories to seven issued U.S. patents protecting our bioartificial liver technology and accompanying cell procurement/cryopreservation technologies. One of the patents we licensed from Spectrum Laboratories, Inc., patent #5,015,585 “Method and Apparatus for Culturing and Diffusively Oxygenating Cells on Isotropic Membranes” has expired.

The founders of Arbios, Drs. Rozga and Demetriou, are co-inventors of both the semi-automated methods for large-scale production of isolated pig/human hepatocytes and cryopreservation of isolated pig/human hepatocytes. Currently, the key proprietary bioartificial liver technologies that we intend to use include the following licensed patents:

(1) A bioartificial liver system in which liver cell therapy and blood detoxification are integrated in a single fiber-in-fiber module (US Patent # 6,582,955 B2 for “Bioreactor With Application as Blood Therapy Device” issued in June 2003). We have licensed this patent from Spectrum Laboratories.

(2) Semi-automated large-scale liver cell procurement technology (US Patent #5,888,409 for “Methods for Cell Isolation and Collection” issued on March 30, 1999). We licensed this patent from Cedars-Sinai Medical Center.

(3) Liver cell procurement technology (US Patent #5,968,356 for “System for Hepatocyte Cell Isolation and Collection” issued on October 19, 1999, and related European Patent #0 830 099 for “Apparatus and Method for Cell Isolation and Collection”). We licensed this patent from Cedars-Sinai Medical Center.

(4) Liver cell cryopreservation technology (US Patent #6,140,123 for “Method for Conditioning and Cryopreserving Cells” issued on October 31, 2000). We licensed this patent from Cedars-Sinai Medical Center.

Cedars-Sinai Medical Center Licenses. On June 19, 2001, Arbios entered into an agreement with Cedars-Sinai Medical Center pursuant to which Cedars-Sinai granted to Arbios exclusive and worldwide rights to patents (2)-(4) above and to certain other technical information. These rights are and remain exclusive over the legal life of the various patents and include, subject to limitations, the right to sublicense the patent rights to third parties. In order to maintain its rights under the license, Arbios is required to expend an aggregate amount of $1,760,000 in research and development expenses toward the development and promotion of products derived from the patents. As of the end of the fiscal year ended December 31, 2004, we had expended more than the minimum required $1,760,000 and have, therefore, fully satisfied the research and development expenditure requirement of this license. Cedars-Sinai Medial Center will have nonexclusive rights to any products derived from the patents. We will have to initially pay Cedars-Sinai Medical Center royalty fees equal to 1.5% of the gross sales price of royalty bearing products. From the third to tenth years of the license, the royalty fee percent will phase out evenly to 0%. Cedars-Sinai Medical Center is a stockholder of this company. See “Certain Relationships and Related Transactions.”

Spectrum Laboratories License Agreement. On December 26, 2001, Arbios entered into a license agreement with Spectrum Laboratories, pursuant to which Spectrum Laboratories granted to Arbios an exclusive, worldwide license to develop, make, use and distribute products based on Spectrum Laboratories’ hollow fiber-in-fiber technology, solely for applications in Arbios’ liver assist devices. The license includes the rights to two issued patents which have since expired. Provided that Arbios purchases the hollow fiber cartridges that it expects that it will need for its products from Spectrum Laboratories, Arbios will not have to pay a royalty for the license. In the event that Spectrum Laboratories is not the manufacturer of the hollow fiber cartridges, Arbios will have to pay Spectrum Laboratories a royalty for the license. Unless the Spectrum Laboratories license agreement is terminated sooner due to a breach of the license, the term of the license will continue until the expiration of the two patents. Spectrum Laboratories also agreed to grant Arbios a right of first refusal to obtain a license to make, use, develop or distribute products based on Spectrum Laboratories’ technology other than in liver assisted products, provided that such other products are in the fields of artificial blood therapy and bioprocessing and therapeutic devices. See “Certain Relationships and Related Transactions.”

Circe Biomedical Properties. In April 2004, we acquired from Circe Biomedical a portfolio of intellectual properties, including certain U.S. and foreign patents applicable to the HepatAssist bioartificial liver that Circe Biomedical was developing, including various patents related to the harvesting and handling of cells to be used in the bioartificial liver. We also acquired a number of other patents and rights related to Circe Biomedical’s bioartificial liver program that we will not be using, as well as patents on other technologies that we do not intend to pursue (such as patents to Circe Biomedical’s artificial pancreas system and three patents for cholesterol removal membranes). The following is a list of the patents and patent applications that we acquired from Circe Biomedical and that we expect to maintain and use with our bioartificial liver systems:

(1) Apparatus for Bioprocessing a Circulating Fluid. US Patent #5643794 (issued on July 1, 1997).

(2) Cryopreserved Hepatocytes and High Viability and Metabolic Activity. US Patent #5795711 (issued on August 18, 1998).

(3) Closed System for Processing Cells. US Patent #5858642 (issued on January 12, 1999).

(4) Method of Thawing Cryopreserved Cells. US Patent #5895745 (issued on April 20, 1999).

(5) High Flow Technique for Harvesting Mammalian Cells. US Patent #5912163 (issued on June 15, 1999).

(6) Removal of Agent From Cell Suspension. US Patent #6068775 (issued on May 30, 2000).

(7) Method for Cryopreserving Hepatocytes. US Patent #6136525 (issued on October 24, 2000).

Patent Applications

Patent No.	Country	Title of Patent Application
2216203	CA	Method of Thawing Cryopreserved Cells
9-256534	JP	Method of Thawing Cryopreserved Cells
97307459	EU	Method of Thawing Cryopreserved Cells
99106212.6-2113	EU	Removal of Agent From Cell Suspension

In addition to the foregoing Circe Biomedical patents, we acquired other rights to Circe Biomedical's HepatAssist bioartificial liver and related technologies, such as clinical and marketing data and over 400 manufacturing and quality assurance/control standard operation protocols that the FDA had previously reviewed. The Phase I-III clinical data that we acquired is expected to be useful in the preparation of future FDA submissions, since the data is based on pig liver cells from the same source. We also acquired an FDA Phase III IND for an enhanced version of the HepatAssist system. We are currently evaluating the possibility of conducting clinical studies of the HepatAssist-2™ system under a modified version of the FDA-approved Phase III IND protocol that we acquired. In connection with our acquisition of the foregoing patents, we also assumed Circe Biomedical's obligations to make the following royalty payments:

(a) We assumed the obligation to pay a royalty of 2% of "net sales" of any product that utilizes or incorporates the bioartificial liver patents, technology, inventions, and technical or scientific data that Circe Biomedical acquired from W.R. Grace & Co. pursuant to that certain Royalty Agreement, dated as of January 29, 1999, between Circe Biomedical (as a wholly-owned subsidiary of W.R. Grace & Co.) and Circe Acquisition Corp., Since the assets that we acquired from Circe Biomedical are expected to be used in the HepatAssist-2™ system, it is likely that we will have to pay this royalty with respect of sales of those parts of our HepatAssist-2™ Bioartificial Liver System that incorporate the W.R. Grace & Co. technology. Net sales include revenues received from our licensees and sublicensees from third parties. The obligation to pay royalties on the net sales of certain parts of our bioartificial liver systems will continue for at least ten years after the date on which we have obtained all required regulatory approvals and have received $100,000 of net sales.

(b) We are obligated to make royalty payments equal to 1% of the "net sales" price for that portion of a liver assist system sold by us or any of our sublicensees that comprises or incorporates a cartridge having a combination of porcine hepatocytes with hollow fiber membranes pursuant to that certain Restated License Agreement dated as of August 1, 1999 between Circe Biomedical and Cedars-Sinai Medical Center. Since our HepatAssist-2™ Bioartificial Liver System may utilize this type of cartridge, we will have to pay this royalty with respect of sales of all cartridges used in our bioartificial liver system. Our obligation to pay these royalties will begin with the first commercial sale of a bioartificial liver and continue thereafter for ten years.

Under U.S. law, utility patents filed before June 8, 1995 are valid for 20 years from the filing date, or 17 years from date of issuance, whichever period is longer. Patents filed on or after June 8, 1995 are good for 20 years from the date of filing.

SEPET™ Rights. Our intellectual property rights relating to the SEPET™ Liver Assist Device consist of a patent application and certain related trade secrets. Our patent application regarding our selective plasma filtration therapy (SEPET™) technology was filed in August 2002 with the United States Patent and Trademark Office and subsequently in other countries and is currently under review for possible issuance.

We have filed for trademark protection for our product names, SEPET™ and HepatAssist-2™, which marks may become registered only upon commercialization of products.

Research and Development

In December 2001, Arbios and Spectrum Laboratories entered into a four-year research agreement pursuant to which Arbios and Spectrum Laboratories agreed to combine their expertise and their respective technologies to enable Arbios to (i) develop liver assist systems, (ii) conduct pre-clinical and Phase I-III clinical testing, (iii) obtain regulatory approvals, and (iv) commercialize such liver assist systems. Under the terms of the agreement, Spectrum Laboratories agreed to perform certain research on liver assist devices for Arbios during product development, pre-clinical and clinical testing at no cost to Arbios. Although all of the obligations of the parties under that research and development agreement were completed during the fiscal year ended December 31, 2004, Spectrum Laboratories has agreed to perform such additional research and development work as we may request, which additional future work will be provided by Spectrum Laboratories on terms upon which we may agree in the future.

We spent a total of $1,555,000 on research and development during the fiscal year ended December 31, 2005, $1,426,000 on research and development during the fiscal year ended December 31, 2004, and $437,000 on research and development during the fiscal year ended December 31, 2003. In addition, pursuant to our research agreement with Spectrum Laboratories, Spectrum Laboratories provided research and development services valued at $17,260 in 2003 for our liver assist systems. See, “Certain Relationships and Related Transactions.”

In January 2005, we entered into a research and development agreement with the Faculty of Chemical and Process Engineering of the Warsaw University of Technology, in Warsaw, Poland. Pursuant to this agreement, Warsaw University agreed to provide research to and develop services for us in connection with the development and manufacture of new membrane-based selective plasma filtration technologies and new selective plasma filtration devices to be used with our liver assist devices. The research agreement had a term of one year and could be extended by the parties. The cost of the research and development agreement to us during FY 2005 was approximately $100,000, and the agreement was terminated In February 2006 for failure to meet the final milestone objectives.

Competition

Our products will compete with numerous other products and technologies that are currently used or are being developed by companies, academic medical centers and research institutions. These competitors consist of both large established companies as well as small, single product development stage companies. We expect substantial competition from these companies as they develop different and/or novel approaches to the treatment of liver disease. Some of these approaches may directly compete with the products that we are currently developing.

Other therapies currently available include whole plasma exchange therapy, a procedure involving massive plasma transfusions that is being used primarily for correction of coagulopathy in patients with severe acute liver failure. In addition, two extracorporeal blood detoxification systems are currently available in the United States for treatment of liver failure: (1) the Adsorba column (Gambro, Hechingen, Germany) which contains activated charcoal and (2) the BioLogic-DT system (HemoCleanse, West Lafayette, Indiana) utilizing a mixture of charcoal, silica and exchange resins**.** Published data indicate that in limited, uncontrolled clinical trials utilizing these systems, only a transient improvement in neurological status was observed with no effect on patients' survival.

Other technologies offered by competing companies include the following:

Gambro's MARS system (molecular adsorbents recirculating system) combines the specific removal of the toxins of liver failure (albumin bound toxins) using a hollow-fiber cartridge impregnated with albumin, and sorbent columns placed in a dialysis circuit filled with 20% albumin solution. Albumin in the dialysate is "regenerated" during continuous recirculation in the closed loop system through sorbent columns (charcoal, resin). In addition, standard hemodialysis is performed during MARS treatment. In Europe, initial results in patients with acute liver failure were encouraging. In November 2004, Gambro announced that in a recently completed Phase II controlled study, which was conducted in 79 patients with acute exacerbation of chronic liver disease, MARS treatment improved hepatic encephalopathy and lowered blood levels of certain toxins implicated in the pathophysiology of liver failure.

Fresenius's PROMETHEUS system is a variant of the MARS system and also combines albumin dialysis with sorbent based blood detoxification and dialysis. In Europe, initial results in a small group of patients with acute exacerbation of chronic liver failure appeared encouraging. Controlled clinical trials are needed to establish if the technology has any therapeutic value and also needed for registration of the product in the United States.

Vital Therapies, Inc. uses technology developed by Hepatix and VitaGen, Inc. Its bioartificial liver ELAD® utilizes a cell line derived from human liver cancer tissue and a conventional hollow fiber bioreactor. A Phase I clinical study of the newest ELAD® version was recently reported at the annual meeting of the American Association for the Study of Liver Disease in November 2004 in Boston. In patients with acute liver failure, treatment with ELAD® had no effect on survival when compared to patients receiving standard therapy. In January 2006, Vital Therapies, Inc. announced that it had received guidance from the FDA to allow it to begin shipment of its ELAD® cartridges to China in anticipation of pivotal clinical trials scheduled to begin in China in early 2006.

Several other technologies could potentially compete with our bioartificial liver systems. These include xenotransplantation, which is the use of pig or other animal organs in humans, transplantation of isolated hepatocytes and *ex vivo* whole liver perfusions. While major progress has been made in the area of xenotransplantation and transgenic pigs are now available, attempts at xenotransplantation have resulted only in short-term survival of grafted organs. *Ex vivo* whole liver perfusion is impractical because it is cumbersome and requires maintenance of multiple pathogen-free pig colonies due to direct cell-cell contact between pig liver and human blood cells. Although transplantation of hepatocytes showed great promise in animal models of liver failure, there is no adequate supply source of human cells due to shortage of organ donors.

Government Regulation

In order to clinically test, manufacture, and market products for therapeutic use, we will have to satisfy mandatory procedures and safety and effectiveness standards established by various regulatory bodies. In the United States, the Public Health Service Act and the Federal Food, Drug, and Cosmetic Act, as amended, and the regulations promulgated thereunder, and other federal and state statutes and regulations govern, among other things, the testing, manufacture, labeling, storage, record keeping, approval, advertising, and promotion of our products. Product development and approval within this regulatory framework take a number of years and involve the expenditure of substantial resources. After laboratory analysis and preclinical testing in animals, an IND is filed with the FDA to begin human testing. Typically, a three-phase clinical testing program is then undertaken. In phase 1, small clinical trials are conducted to determine the safety of the product. In phase 2, clinical trials are conducted to assess safety and gain preliminary evidence of the efficacy of the product. In phase 3, clinical trials are conducted to provide sufficient data for the statistically valid proof of safety and efficacy. The time and expense required to perform this clinical testing can vary and be substantial. No action can be taken to market any new drug or biologic product in the United States until an appropriate marketing application has been approved by the FDA. Even after initial FDA approval has been obtained, further clinical trials may be required to provide additional data on safety and effectiveness and are required to gain clearance for the use of a product as a treatment for indications other than those initially approved. In addition, side effects or adverse events that are reported during clinical trials can delay, impede, or prevent marketing approval. Similarly, adverse events that are reported after marketing approval can result in additional limitations being placed on the product’s use and, potentially, withdrawal of the product from the market. Any adverse event, either before or after marketing approval, can result in product liability claims against us.

In addition to regulating and auditing clinical trials, the FDA regulates and inspects equipment, facilities, and processes used in the manufacturing and testing of such products prior to providing approval to market a product. If, after receiving clearance from the FDA, a material change is made in manufacturing equipment, location, or process, additional regulatory review may be required. We will also have to adhere to current Good Manufacturing Practice and product-specific regulations enforced by the FDA through its facilities inspection program. The FDA also conducts regular, periodic visits to re-inspect equipment, facilities, laboratories, and processes following the initial approval. If, as a result of these inspections, the FDA determines that any equipment, facilities, laboratories, or processes do not comply with applicable FDA regulations and conditions of product approval, the FDA may seek civil, criminal, or administrative sanctions and/or remedies against us, including the suspension of the manufacturing operations.

The FDA has separate review procedures for medical devices before such products may be commercially marketed in the United States. There are two basic review procedures for medical devices in the United States. Certain products may qualify for a Section 510(k) procedure, under which the manufacturer gives the FDA a Pre-Market Notification, or 510(k) Notification, of the manufacturer's intention to commence marketing of the product at least 90 days before the product will be introduced into interstate commerce. The manufacturer must obtain written clearance from the FDA before it can commence marketing the product. Among other requirements, the manufacturer must establish in the 510(k) Notification that the product to be marketed is "substantially equivalent" to another legally-marketed, previously existing product. If a device does not qualify for the 510(k) Notification procedure, the manufacturer must file a Pre-Market Approval Application. The Pre-Market Approval Application requires more extensive pre-filing testing than the 510(k) Notification procedure and involves a significantly longer FDA review process. We are currently in the process of designing clinical trials to demonstrate the safety and efficacy of SEPET™ in treating patients with chronic liver failure.

HepatAssist-2™ is classified by the FDA as a combination product comprising a biological therapeutic and a Class III medical device. Accordingly, it is subject to a two-step approval process starting with a submission of an IND to conduct human studies followed by the submission of applications for Product Marketing Approval (PMA) and Biologic License Approval (BLA). The steps required before a product such as HepatAssist-2™ may be approved by the FDA for marketing in the United States generally include (i) preclinical laboratory and animal tests; (ii) the submission to the FDA of an IND for human clinical testing, which must become effective before human clinical trials may commence; (iii) adequate and well-controlled human clinical trials to establish the safety and efficacy of the product; and (iv) the submission to the FDA of a product application. Preclinical tests include laboratory evaluation of the product, as well as animal studies to assess the potential safety and efficacy of the product. The results of the preclinical tests, together with analytical data, are submitted to the FDA as part of an IND, which must become effective before human clinical trials may commence. The sponsor and the FDA must resolve any outstanding concerns before clinical trials can proceed. Human clinical trials typically involve three sequential phases. Each trial must be reviewed and approved by the FDA before it can begin. Phase I involves the initial introduction of the experimental product into human subjects to evaluate its safety and, if possible, to gain early indications of efficacy. Phase II usually involves a trial in a limited patient population to (i) evaluate preliminarily the efficacy of the product for specific, targeted indications; (ii) determine dosage tolerance and optimal dosage; and (iii) identify possible adverse effects and safety risks. Phase III typically involves further evaluation of clinical efficacy and testing of product safety of a product in final form within an expanded patient population. The results of preclinical testing and clinical trials, together with detailed information on the manufacture and composition of the product, are submitted to the FDA in the form of an application requesting approval to market the product. In the case of HepatAssist2™, the product may be available for Phase III testing once the new platform to provide therapy (which we currently believe will be the PERFORMER) is found to be equivalent as a plasma perfusion apparatus to the original platform used in previous Phase I/II/III studies, and the FDA agrees to amend the previous IND to use the PERFORMER in a new Phase III clinical study. No assurance can be given that the results of the equivalency studies will show that the PERFORMER is a suitable platform for the HepatAssist-2™ bioartificial liver. Finally, we will also have to re-establish an approved cell manufacturing capability or engage an approved third party provider of pig cells.

In addition to obtaining FDA approval, we will have to obtain the approval of the various foreign health regulatory agencies of the foreign countries in which we may wish to market our products. Certain health regulatory authority (including those of Japan, France and the United Kingdom) have objected, and other countries regulatory authorities could potentially object, to the marketing of any therapy that uses pig liver cells (which our bioartificial liver systems are expected to utilize) due to safety concerns. If we are unable to obtain the approval of the health regulatory authorities in any country, the potential market for our products will be reduced.

Employees

As of June 20, 2006, we employed six full-time employees. We have also engaged six independent contractors who provide services to us on a part-time basis. Of the foregoing employees and contractors, five are primarily engaged in administration/management, and the remaining seven persons are involved in scientific research, product development and/or regulatory compliance matters. Our employees are not represented by a labor organization or covered by a collective bargaining agreement. We have not experienced work stoppages and we believe that our relationship with our employees is good.

Glossary of Terms

"Dialysate" is a cleansing liquid used in the two forms of dialysis—hemodialysis and peritoneal dialysis.

"Dialysis" is the process of cleaning wastes from the blood artificially. This job is normally done by the kidney and liver.

"Extracorporeal" means situated or occurring outside the body.

"Ex vivo" pertains to a biological process or reaction taking place outside of a living cell or organism.

"Fulminant" means occurring suddenly, rapidly, and with great severity or intensity.

"Hemodialysis" pertains to the use of a machine to clean wastes from blood after the kidneys have failed. The blood flows through a device called a dialyzer, which removes the wastes. The cleaned blood then flows back into the body.

"Hemofiltration/ Hemofiltrate "Hemofiltration" is a continuous dialysis therapy in which blood is pumped through a hollow-fiber cartridge and the liquid portion of blood containing substances are removed into the sink compartment. The liquid portion of the blood ("hemofiltrate") is discarded.

"Hepatitis" is an inflammation of the liver caused by infectious or toxic agents.

"Hepatocytes" are the organ tissue cells of the liver.

"kDa" is a measure of molecular weight using "Daltons" (abbreviated as "Da"). One "Da" is 1/12 of the weight of an atom carbon ^{12}C. "kDa" is a kilodalton, or a 1,000 Daltons.

"IND" means Investigational New Drug application.

"In vitro" pertains to a biochemical process or reaction taking place in a test-tube (or more broadly, in a laboratory) as opposed to taking place in a living cell or organism.

"In vivo" pertains to a biological process or reaction taking place in a living cell or organism.

"**PERV**" means the porcine endogenous retrovirus.

"Plasma" is the clear, yellowish fluid portion of blood. Plasma differs from serum in that it contains fibrin and other soluble clotting elements.

"Porcine" means of or pertaining to swine; characteristic of the hog.

"Regeneration" means regrowth of lost or destroyed parts or organs.

"Sorbent" means to take in and adsorb or absorb.

Property

We currently maintain our laboratory at Cedars-Sinai Medical Center in Los Angeles, California, which facilities we lease under a three-year lease that expires on June 30, 2007. We currently pay rent of $4,531 per month for the 1,008 square foot facility under the lease. Cedars-Sinai Medical Center is a stockholder of our company and was one of the initial stockholders of Arbios. See "Certain Relationships and Related Transactions."

Since April 1, 2004, we have been leasing 1,700 square feet of administrative office space in a building across the street from our laboratories that are located at Cedars-Sinai Medical Center. Our office is located at 8797 Beverly Blvd., Suite 304, Los Angeles, California 90048. On September 1, 2005, we re-signed the lease for an additional two years. The office lease requires us to pay rent of $5,777 per month. Since December 5, 2005, we have been leasing approximately 600 square feet of administrative office space in Waltham, Massachusetts where some of our executive management are located. The new office lease, located at 1050 Winter Street, Suite 1000, Waltham, Massachusetts 02154, requires us to pay a total of $18,040 for a period of seven months. We also lease an animal breeding facility in Woodstock, Connecticut which will be used to harvest porcine livers for use in our HepatAssist-2 product. The animal breeding facility lease in Connecticut commenced on April 1, 2005 and has a term of two years which requires us to pay $12,009 per month for approximately 1,680 square feet of space.

Legal Proceedings

We are not a party to any material legal proceedings.

We may occasionally become subject to legal proceedings and claims that arise in the ordinary course of our business. It is impossible for us to predict with any certainty the outcome of pending disputes, and we cannot predict whether any liability arising from pending claims and litigation will be material in relation to our consolidated financial position or results of operations.

DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS

Directors and Executive Officers of Arbios Systems, Inc.

The following table sets forth the name, age and position held by each of our directors and executive officers. Directors are elected at each annual meeting and thereafter serve until the next annual meeting (currently expected to be held during the third calendar quarter of 2006) at which their successors are duly elected by the stockholders. Pursuant to the stock purchase agreement signed by the Company and investors during the March 6, 2006 private equity financing, it was agreed upon that no more than nine director nominees shall be elected at the next annual shareholders meeting.

Name	Age	Position
Walter C. Ogier	49	Director, President and Chief Executive Officer
Jacek Rozga, M.D., Ph.D.	57	Director, Chief Scientific Officer
Roy Eddleman	66	Director
Marvin S. Hausman M.D.	64	Director
John M. Vierling, M.D. (2)	60	Chairman of the Board
Jack E. Stover (1)	53	Director
Thomas C. Seoh (1)(3)	48	Director
Thomas M. Tully (1)(2)(3)	60	Director
Dennis Kogod (2)(3)	46	Director
Richard W. Bank, M.D.	72	Director
Amy Factor	48	Director
Scott L. Hayashi	34	Vice President of Administration, Chief Financial Officer and Secretary
David J. Zeffren	49	Vice President of Product Development
Shawn P. Cain	39	Vice President of Operations

(1) Member of Audit Committee.
(2) Member of Compensation Committee
(3) Member of Nominating and Corporate Governance Committee.

Business Experience and Directorships

The following describes the backgrounds of current directors and the key members of the management team.

Walter C. Ogier. Mr. Ogier was appointed President and Chief Executive Officer and a director of Arbios in November 2005 and has two decades of experience in the healthcare and biotechnology industries. Prior to joining Arbios, Mr. Ogier was President and Chief Executive Officer of Genetix Pharmaceuticals Inc., which is active in gene therapy and functional genomics and was affiliated with Johnson & Johnson, from December 2001 until November 2005. Prior to that, Mr. Ogier was President and Chief Executive Officer of Eligix, Inc., a Harvard University-affiliated company engaged in monoclonal antibody-based therapies for stem cell transplantation and immune therapy, from October 1997 through November 2001. Mr. Ogier was also previously Vice President of Marketing for Aastrom Biosciences and held various positions within Baxter Healthcare Corporation and its Fenwal and Immunotherapy divisions and with SRI International (formerly Stanford Research Institute).

Jacek Rozga, M.D., Ph.D. Dr. Rozga is a co-founder of Arbios and has been a director and Chief Scientific Officer of Arbios since its organization in August 2000. Dr. Rozga served as President of Arbios from August 2000 until November 2005. From October 2003 until March 2005, Dr. Rozga also acted as our Chief Financial Officer. Dr. Rozga is has been a director of Optical Imaging Systems, Inc., a publicly held Nevada corporation since February 2005 and Chairman of OncoTx, Inc., a private California corporation since October 2005. Since 1992, Dr. Rozga has been a professor of Surgery at UCLA School of Medicine. Dr. Rozga was previously a research scientist at Cedars-Sinai Medical Center from 1992 to 2005.

Roy Eddleman. Mr. Eddleman has served as a director since March 2002. Mr. Eddleman has been the Chairman of the Board and Chief Executive Officer of Spectrum Laboratories, Inc. since July 1982. Spectrum Laboratories, Inc. is a company in the business of developing and commercializing proprietary tubular membranes and membrane devices for existing and emerging life sciences applications. Mr. Eddleman also has been the founder and/or principal and director of each of (i) Spectrum Separations, Inc., now a part of UOP/Hitachi, (ii) ICM, Inc., now a part of Perstorf/Perbio, (iii) Facilichem, Inc., a joint venture with SRI International, (iv) Nuclepore, Inc., now a part of Corning and Whatman, and (v) Inneraction Chemical, Inc., now a part of Merck Darmstadt. He is the founder and a benefactor of the Roy Eddleman Research Museum of Chemistry and the Chemical Heritage Foundation in Philadelphia.

Marvin S. Hausman, M.D. Dr. Hausman has served as a director since February 2003. From January 1997 until March 2005, Dr. Hausman was the President and Chief Executive Officer of Axonyx, Inc., a public company engaged in the business of acquiring and developing novel post-discovery central nervous system drug candidates, primarily in areas of memory and cognition. Dr. Hausman stepped down as the Chairman of the Board of Directors of Axonyx, Inc. in June 2005. Dr. Hausman has 30 years of drug development and clinical care experience at various pharmaceutical companies, including working in conjunction with Bristol-Meyers International, Mead-Johnson Pharmaceutical Co., and E.R. Squibb. He was a co-founder of Medco Research Inc., a NYSE-traded biopharmaceutical company which was acquired by King Pharmaceuticals, Inc. Dr. Hausman has been the President of Northwest Medical Research Partners, Inc. since 1995 and previously served as a member of the Board of Directors of Regent Assisted Living, Inc. from 1996 through 2001.

John M. Vierling, M.D., **FACP**. Dr. Vierling has served as a director since February 2002. In April 2005, Dr. Vierling assumed the position of Professor of Medicine and Surgery, Director of Baylor Liver Health and Chief of Hepatology at the Baylor College of Medicine and Director, Advanced Liver Therapies at St. Luke's Episcopal Hospital in Houston, Texas. Dr. Vierling had been a Professor of Medicine at the David Geffen School of Medicine at UCLA from 1996 to 2005 and was the Director of Hepatology and Medical Director of Multi-Organ Transplantation Program at Cedars-Sinai Medical Center from 1990 until 2004. Dr. Vierling is also currently the President of the American Association for the Study of Liver Diseases. Dr. Vierling was the Chairman of the Board of the American Liver Foundation from 1994 to 2000, and the President of the Southern California Society for Gastroenterology from

1994 to 1995. Dr. Vierling has also been a member of numerous National Institutes of Health study sections and advisory committees, including the NIDDK Liver Tissue Procurement and Distribution Program. He is currently Chairman of the Data Safety Monitoring Board for the National Institute of Health, NIDDK ViraHep C Multicenter Trial. Dr. Vierling's research has focused on the immunological mechanisms of liver injury caused by hepatitis B and C viruses and autoimmune and alloimmune diseases.

Jack E. Stover. Mr. Stover has served as a director since November 2004. Mr. Stover is also a director of PDI, Inc. and Antares Pharma, Inc. Mr. Stover was elected the President and Chief Operating Officer of Antares Pharma, Inc., (a public specialty pharmaceutical company) in July 2004. In September 2004, he was named President, CEO and was appointed as a director of that company. Prior thereto, for approximately two years Mr. Stover was Executive Vice President, Chief Financial Officer and Treasurer of SICOR, Inc., a Nasdaq traded injectable pharmaceutical company that was acquired by Teva Pharmaceutical Inc. Prior to that, Mr. Stover was Executive Vice President and Director for Gynetics, Inc., a proprietary women's drug company, and the Senior Vice President, Chief Financial Officer, Chief Information Officer and Director for B. Braun Medical, Inc., a private global medical device and pharmaceutical company. For over 16 years, Mr. Stover was an employee and then a partner with PricewaterhouseCoopers, working in their bioscience industry division, and is also a certified public accountant.

Thomas C. Seoh. Mr. Seoh has served as a director since March 2005. Since February 2006, Mr. Seoh has served as Chief Executive Officer of Faust Pharmaceuticals S.A., a clinical stage product company focused on drugs for neurological diseases and conditions. From 2005 to 2006, Mr. Seoh was Managing Director of Beyond Complexity Ventures, LLC, engaged in life science start-up and business development consulting activities. From 1995 to 2005, Mr. Seoh was Senior Vice President, Corporate and Commercial Development, and previously Vice President, General Counsel and Secretary, with NASDAQ-listed Guilford Pharmaceuticals Inc., engaged in research, development and commercialization of CNS, oncology and cardiovascular products. Previous positions included Vice President and Associate General Counsel of ICN Pharmaceuticals, Inc., General Counsel and Secretary of Consolidated Press U.S., Inc. and corporate attorney in the New York City and London offices of Lord Day & Lord, Barrett Smith.

Thomas M. Tully. Mr. Tully has served as a director since May 2005. Since January 2006, Mr. Tully has served as Chairman and Chief Executive Officer of IDev Technologies, a medical device company focused on the development and marketing of innovative minimally invasive devices for the treatment of peripheral vascular disease. From August 2000 until April 2005, Mr. Tully was the President and Chief Executive Officer of Neothermia Corporation, a medical device company. Prior thereto, from June 1995 to April 2000, Mr. Tully was the President and Chief Executive Officer of Nitinol Medical Technologies, Inc., a medical device company. Mr. Tully was the President of Organogenesis Inc., from 1991 to 1994, and the President of Schnieder (USA) Inc. from 1988 to 1991. From 1980 through 1988 he held various positions with Johnson & Johnson, including President, Johnson & Johnson Interventional Systems and Vice President Marketing and Sales at the Johnson & Johnson Cardiovascular division.

Dennis Kogod. Mr. Kogod has served as a director since May 2005. Mr. Kogod is Division President, Western Group for Davita, Inc., a leading provider of dialysis services for patients suffering from chronic kidney failure. Mr. Kogod joined Davita when that company acquired Gambro Healthcare in October 2005. Prior to the acquisition, Mr. Kogod was President and Chief Operating Officer of the West Division of Gambro Healthcare USA, which he joined in July 2000. Before that, Mr. Kogod spent 13 years with Teleflex Corporation, a NYSE-traded company. While there, he served as Division President of the Teleflex Medical Group from December 1999 to July 2000.

Richard W. Bank, M.D. Dr. Bank has served as a director since January 2006 and was previously a director from December 2003 to January 2005. Dr. Bank has served as President and Managing Director of First-Tier Biotechnology Partners since February of 1995. From February 1995 through April 1996, Dr. Bank served as President and Secretary of Biomedical Sciences, Incorporated. He has also served as President and Secretary of BioVest Health Sciences, Incorporated since its organization in April 1996. Dr. Bank was Senior Research Analyst Director/Biotechnology SBC Warburg Dillon Read from 1998 to 1999. He was also Entrepreneur-In- Residence in Life Sciences for Tucker Anthony Sutro for 2000 through 2001. Dr. Bank has been Senior Portfolio Manager, Managing Director and Senior Vice President of LibertyView Capital Management, a Lehman Brothers company, from July 1, 2004 to March 31, 2006 and is currently the President of BioVest Advisors.

Amy Factor. Ms. Factor was appointed as a director of Arbios in March 2005, and she was the interim Chief Executive Officer of Arbios from April 2005 until November 2005. Prior to her term as the Chief Executive Officer, Ms. Factor provided the Company with strategic and financial consulting services from November 2003 until March 2005. Since 1999, Ms. Factor has been President of AFO Advisors, LLC and the President of AFO Capital Advisors, LLC since 1996. Ms. Factor began her career with the public accounting firm KPMG and has been involved in the biotechnology industry since 1988 serving as the CFO of a publicly traded biotechnology company.

Scott L. Hayashi. Mr. Hayashi joined the company as its Chief Administrative Officer in February 2004, became the Secretary of the company in July 2004 and was appointed as the Vice President of Administration in November 2004. In March 2005, Mr. Hayashi assumed the role as our Chief Financial Officer. Prior to joining Arbios, Mr. Hayashi was a Manager of Overseas Development for Cardinal Health, Inc. from July 2000 to April 2002, Mr. Hayashi worked in finance, mergers and acquisitions for Northrop Grumman Corporation from March 1997 to July 2000 and Honeywell, Inc. from July 1994 to December 1996.

David J. Zeffren. Mr. Zeffren was first employed by us as a consultant in February 2004, before being appointed Vice President of Operations in November 2004, after which he became Vice President of Product Development in March 2005. Prior to joining Arbios, Mr. Zeffren had been the Chief Operating Officer of Skilled Health Systems, L.C., a healthcare technology and clinical research organization from 1999 to 2004. Mr. Zeffren was also Chief Operating Officer of Physician Care Management from 1996 to 1999. Mr. Zeffren was a Corporate Director, Business Development & Division Manager at INFUSX, Inc., a subsidiary of Salick Health Care, Inc. from 1993-1996. Mr. Zeffren has over 15 years of experience working in the healthcare and medical device industries.

Shawn P. Cain. Mr. Cain joined the company as its Vice President of Operations in April 2005 and was previously employed by us as a part-time consultant from December 2003 to March 2005. From June 2003 to March 2005, Mr. Cain was employed at Becton Dickinson’s Discovery Labware, Biologics Business, where he was responsible for the operation of two manufacturing facilities that produced over 900 biologics products. From January 1997 through May 2003, Mr. Cain was the Vice President of Operations for Circe Biomedical, Inc., where he was instrumental in the early development of the bioartificial liver technology, including development the company’s HepatAssist® product.

There are no family relationships between any of the executive officers and directors.

Audit, Compensation and Nominating Committees

In February 2004, our Board of Directors established an Audit Committee. The Board of Directors has instructed the Audit Committee to meet periodically with the company's management and independent accountants to, among other things, review the results of the annual audit and quarterly reviews and discuss the financial statements, recommend to the Board the independent accountants to be retained, and receive and consider the accountants' comments as to controls, adequacy of staff and management performance and procedures in connection with audit and financial controls. The Audit Committee is also authorized to review related party transactions for potential conflicts of interest. The Audit Committee consists of three persons and is currently composed of Mr. Stover, Mr. Seoh and Mr. Tully. Each of these individuals is a non-employee director and, in the opinion of our Board, is independent as defined under the Nasdaq Stock Market's listing standards. Mr. Stover is our "audit committee financial expert" as defined under Item 401(e) of Regulation S-B of the Securities Exchange Act of 1934, as amended. The Audit Committee operates under a formal charter that governs its duties and conduct. In November 2004, we established a Compensation Committee and a Nomination Committee. The Compensation Committee is authorized to review and make recommendations to the full Board of Directors relating to the annual salaries and bonuses of our senior executive officers. The Nomination Committee assists the Board in identifying qualified candidates, selecting nominees for election as directors at meetings of stockholders and selecting candidates to fill vacancies on our Board, and developing criteria to be used in making such recommendations.

EXECUTIVE COMPENSATION

The following table set forth certain information concerning the annual and long-term compensation for services rendered to us in all capacities for the fiscal years ended December 31, 2005, 2004 and 2003 of (i) all persons who served as the Chief Executive Officer of this company during the fiscal year ended December 31, 2005 and (ii) each other person who was an executive officer on December 31, 2005 and whose total annual salary and bonus during the fiscal year ended December 31, 2005 exceeded $100,000. (The Chief Executive Officer and the other named officers are collectively referred to as the "Named Executive Officers.") The information set forth below includes all compensation paid to the Named Executive Officers by ATI before the Reorganization by ATI, and all compensation paid to such individual by both Arbios and ATI since the Reorganization.

Summary Compensation Table

		Annual Compensation			Long-Term Compensation Awards	
Name and Principal Position	Year	Salary	Bonus	Other Annual Compensation	Securities Underlying Options	All Other Compensation[10]
Walter C. Ogier,[1] President and Chief Executive Office	2005	$ 46,057	$ 50,000		500,000	
Amy Factor[2]	2005	$ 190,582	--	$ 137,750[3]	300,000	$ 1,125
Jacek Rozga, M.D., Ph.D., Chief Scientific Officer	2005	$ 199,177	$ 24,000		12,000	$ 2,750
	2004	$ 198,909	$ 20,000		30,000	
	2003	$ 143,125	$ 15,000		18,000[4]	
Scott L. Hayashi Vice President of Administration, Chief Financial Officer and Secretary	2005	$ 102,291	$ 9,450		22,000	$ 1,969
	2004[5]	$ 80,000	$ 12,000	$ 8,000[6]	10,000	
David J. Zeffren Vice President of Product Development	2005	$ 114,346	$ 5,400		12,000	$ 2,080
	2004[7]	$ 120,000			10,000	
Shawn P. Cain,[8] Vice President of Operations	2005	$ 110,000	$ 12,000	$ 3,465[9]	30,000	$ 3,000

(1) Mr. Ogier was appointed our President and Chief Executive Officer in November 2005.
(2) From January 2005 to March 2005, Ms. Factor was employed by Arbios Systems, Inc. as a consultant and was subsequently appointed as the Chief Executive Officer from April 2005 until November 2005.
(3) Represents compensation paid to Ms. Factor for the period from January 2005 until March 2005.
(4) Represents options granted to Jacek Rozga, M.D., Ph.D. by ATI, which options were assumed by this company in the Reorganization.
(5) Mr. Hayashi joined Arbios in February 2004.

(6) Represents cash payments made to Mr. Hayashi for health and other benefits in 2004
(7) Mr. Zeffren joined Arbios Systems, Inc. in February 2004 as a consultant before becoming an executive officer of this company in November 2004. The compensation shown includes amounts paid both as a consultant and as an officer of the Company.
(8) Mr. Cain was employed by Arbios Systems, Inc. as a consultant from January 2005 to March 2005 and subsequently was appointed an executive officer in April 2005.

(9) Represents compensation paid to Mr. Cain for the period from January 2005 to March 2005.
(10) Represents company matching contributions in the Arbios 401(k) Plan.

Stock Option Grants

The following table contains information concerning grants of stock options during the fiscal year ended December 31, 2005 by us to the Named Executive Officers. We have not granted any stock appreciation rights.

Option Grants in Fiscal Year Ended December 31, 2005

		Individual Grants		
Name	Number of Securities Underlying Options Grant	% of Total Options Granted to Employees In Fiscal Year	Exercise or Base Price	Expiration Date
Walter C. Ogier	500,000[1]	57%	$ 1.85	November 8, 2010
Amy Factor	97,000[2]	34%	$ 1.65	April 1, 2010
	103,000[2]		$ 1.65	April 1, 2010
	25,000[2]		$ 1.85	November 8, 2010
	75,000[2]		$ 2.90	March 1, 2010
	200,000[3]		$ 2.90	February 1, 2010
Jacek Rozga, M.D., Ph.D.	12,000[4]	2%	$ 2.22	July 7, 2012
Scott L. Hayashi	12,000[4]	3%	$ 2.90	March 1, 2010
	10,000[5]		$ 1.85	March 24, 2010
David J. Zeffren	12,000[4]	1%	$ 2.90	March 1, 2010
Shawn P. Cain	30,000[6]	3%	$ 1.65	March 31, 2010

(1) One half of these options will vest on the one year anniversary of the date of grant, and the balance will monthly in monthly increments during the second year following the date of grant.

(2) All of the options were vested upon Ms. Factor's resignation from the Company per the terms of her employment agreement.
(3) Represents a warrant for 200,000 shares of common stock issued to Ms. Factor.
(4) The options vest in monthly increments over the first twelve months following the date of grant.
(5) One half of these options vest immediately on the date of grant, and the balance vests on the one year anniversary of the date of grant.
(6) The options vest in monthly increments over the first twenty four months following the date of grant.

Aggregated Option Exercises in Last Fiscal Year

The following table sets forth the number and value of unexercised options held by the Named Executive Officers as of December 31, 2005. There were no exercises of options by the Named Executive Officers in fiscal year 2005.

Aggregated Option Exercises in Fiscal Year Ended December 31, 2005 and FY-End Option Values

Name	Shares Acquired on Exercise	Value Realized	Number of Securities Unexercised Options at FY-End (#) Exercisable/ Unexercisable	Value of Unexercised Options at FY-End (#) Exercisable/ Unexercisable[1]
Walter C. Ogier	-	-	0/500,000	$ -
Amy Factor	-	-	475,000/0	$ 170,000/0
Jacek Rozga, M.D., Ph.D.	-	-	71,000/7,000	$ 44,100/0
Scott L. Hayashi	-	-	27,000/5,000	$ -
David J. Zeffren	-	-	20,000/2,000	$ -
Shawn P. Cain	-	-	11,250/18,750	$ 1,688/2,813

(1) Dollar amounts reflect the net values of outstanding stock options computed as the difference between $1.80 (the last reported sale on December 30, 2005) and the exercise price of the options.

Compensation of Board of Directors

On March 24, 2005, the Board of Directors approved a plan for compensating the Company's directors. On May 16, 2005, the Board amended the plan for the 2005 fiscal year and later renewed the plan on January 11, 2006 for fiscal year 2006. The plan consists of the following:

Non-employee directors will receive annual grants of stock options to purchase 15,000 shares of the Company's common stock. The options will be granted on January 1 of each year. The options will have a term of seven years and will have an exercise price equal to the market price on the trading day preceding the grant date. The options will vest in equal monthly installments over the 12-month period following the grant date.

Upon election to the Board of Directors, each new director will be granted a stock option to purchase 30,000 shares of the Company's common stock. The option will have a term of seven years and will have an exercise price equal to the market price on the trading day preceding the date of grant. One half of the options will vest on the date of grant, and the balance will vest on the first anniversary of the grant date.

On January 1 of each year, committee members will receive an annual grant of a stock option to purchase 5,000 shares of common stock for each committee for which they are a member. The option will have a term of seven years and will have an exercise price equal to the market price on the trading day preceding the grant date. The option will vest in equal monthly installments over the 12-month period following the grant date.

Cash Compensation

Effective March 24, 2005, all non-employee directors will receive a cash payment of $1,500 for each day they attend a Board of Directors meeting in person ($1,000 if they attend a meeting by telephone), and $500 for each telephonic Board meeting ($1,000 for each telephonic meeting if the meeting lasts longer than two hours). In addition, the Chairman of the Board and Chairman of the Audit Committee will each be paid $25,000 annually (payable quarterly), and the Chairman of the Nomination and Corporate Governance Committee and the Chairman of the Compensation Committee will each be paid $10,000 annually (payable quarterly). The company will also reimburse all directors for any expenses incurred by them in attending meetings of the Board of Directors.

During the fiscal year ended December 31, 2005, each of our directors was granted an annual grant of stock options to purchase 15,000 shares of common stock at an exercise price of $2.48 per share. All director options are granted at the market price on the date of grant and have a term of seven years and vest on a monthly basis from the date of grant.

Employment Contracts and Termination of Employment, and Change-In-Control Arrangements

We entered into an agreement with David Zeffren, dated December 30, 2004, pursuant to which Mr. Zeffren has served as Vice President of Operations. The agreement provides for a salary of $120,000 per year that is subject to annual review and adjustment. The agreement provides that Mr. Zeffren's employment is "at will" and can be terminated at any time. Mr. Zeffren's title and responsibilities were changed in March 2005 to Vice President Product Development.

We have entered into an agreement with Scott Hayashi, dated March 29, 2005, pursuant to which Mr. Hayashi serves as Chief Financial Officer. The agreement provides for a salary of $105,000 per year that is subject to annual review and adjustment. Mr. Hayashi is eligible to receive an annual discretionary bonus of up to 15% of his salary based on achieving certain goals. The agreement also offered Mr. Hayashi a five-year qualified stock option to purchase 10,000 shares of our common stock. The shares are exercisable at $1.85 per share; 50% of the shares vested immediately and 50% of the shares vest one year from the grant date of the option. The agreement provides that Mr. Hayashi's employment is "at will" and can be terminated at any time.

We have entered into an agreement with Shawn Cain, dated March 22, 2005, pursuant to which Mr. Cain serves as Vice-President of Operations. The agreement provides for a salary of $160,000 per year. The agreement also offered Mr. Cain a five-year incentive stock option to purchase 30,000 shares of our common stock. The options have an exercise price of $1.65 per share and vest in monthly installments of 1,250 shares commencing on May 1, 2005. The agreement also provides that we will match Mr. Cain's contributions to a 401(k) plan at a rate of 50% up to 6% of total compensation per year. The agreement also offers to pay Mr. Cain's COBRA costs for an 18-month period commencing on the April 15, 2005. Mr. Cain is also eligible to receive an annual discretionary cash bonus of up to 15% of his base annual salary. The agreement provides that Mr. Cain's employment is "at will" and can be terminated at any time. During Mr. Cain's first year of employment, he will receive six months' notice if we wish to terminate his employment, during the second year he will receive four months' notice and during the third year he will receive three months' notice. If we fail to provide the required notice, upon termination, we will pay Mr. Cain the salary equivalent of the notice of the shortened notice period.

We have entered into an agreement with Dr. Jacek Rozga, dated July 28, 2005, pursuant to which Dr. Rozga has served as President and Chief Scientific Officer. The agreement provides for a salary of $200,000 per year that is subject to review and adjustment by the Board of Directors. Dr. Rozga is eligible to receive a discretionary annual bonus of up to 20% of his salary as determined by the Board of Directors. The agreement provides that Dr. Rozga's employment is "at will" and can be terminated at any time. Dr. Rozga's title of President was transferred to Walter Ogier upon his hiring in November 2005. Dr. Rozga continues to serve as Chief Scientific Officer.

On March 31, 2005, we entered into an employment agreement with Amy Factor pursuant to which Ms. Factor was appointed as our interim Chief Executive Officer. Under the agreement, Ms. Factor was hired to be our Chief Executive Officer until the hiring of a permanent Chief Executive Officer. The employment agreement was terminable by either Ms. Factor or by us at any time upon 30 day's prior written notice. Under the agreement, we agreed to pay Ms. Factor a base salary at a monthly rate of $25,000 (which is equivalent to $300,000 on an annualized basis) and to issue to Ms. Factor five-year non-qualified stock options to purchase an aggregate of 200,000 shares of common stock. The options are exercisable at $1.65 per share (the closing market price of the common stock on March 31, 2005). Options to purchase 80,000 shares vested on March 31, 2005, and the options for the remaining 120,000 shares will vest in monthly installments of 6,000 shares commencing on April 1, 2005. The vesting of these options was to be accelerated to be immediately and fully vested when we hire a permanent Chief Executive Officer, which has subsequently occurred. If Ms. Factor terminated the employment agreement for any reason other than our breach, or if we terminate the agreement "for cause" (as defined in the agreement) before all of the remaining 120,000 options have vested, all unvested options would have been forfeited. If we had terminated the employment agreement for any reason other than cause, the options would thereupon immediately and fully (100%) vest. In November 2005, Ms. Factor resigned her position as the interim Chief Executive Officer upon the hiring of Walter C. Ogier, and we terminated her employment agreement with the Company at such time.

We entered into an agreement with Walter C. Ogier, dated October 17, 2005, pursuant to which Mr. Ogier will serve as Chief Executive Officer commencing November 7, 2005. The agreement provides for an annual initial base salary of $300,000 that is subject to review and adjustment on an annual basis in accordance with the procedures established by the Board of Directors. Mr. Ogier is eligible to receive a discretionary annual cash bonus equal to up to 50% of his annual base salary. The agreement provides that upon commencement of employment, Mr. Ogier received an option to purchase 500,000 shares of our common stock, which will vest 250,000 shares on the one year anniversary of the date Mr. Ogier's employment commences and 250,000 shares will vest ratably at the end of each of the twelve months of the second year of his employment. If there is a liquidation or change-in-control of the Company and in connection with such transaction Mr. Ogier is terminated other than for cause or is no longer President and Chief Executive Officer of the surviving corporation, then all options shares granted to Mr. Ogier in connection with his employment will immediately and fully vest. Additionally, if Mr. Ogier terminates his employment for good reason or is terminated in anticipation of such a transaction, then all option shares granted to Mr. Ogier in connection with his employment will immediately and fully vest. The agreement provides that Mr. Ogier's employment is "at will" and can be terminated at any time. Mr. Ogier is entitled to 12 months of salary if the Company terminates him without cause or he terminates his employment for defined good reason.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding beneficial ownership of our common stock as of May 22, 2006 (a) by each person known by us to own beneficially 5% or more of any class of our common stock, (b) by each of our Named Executive Officers and our directors and (c) by all executive officers and directors of this company as a group. As of May 22, 2006 there were 17,460,181 shares of our common stock issued and outstanding. Unless otherwise noted, we believe that all persons named in the table have sole voting and investment power with respect to all the shares beneficially owned by them. Except as otherwise indicated, the address of each stockholder is c/o the company at 8797 Beverly Blvd., Suite 304, Los Angeles, California, 90048.

Name and Address of Beneficial Owner	Shares Beneficially Owned (1)	Percentage of Class
Jacek Rozga, M.D., Ph.D.	2,323,000[2]	13.2%
Achilles A. Demetriou, M.D., Ph.D and Kristin P. Demetriou	2,500,000[3]	14.3%
John M. Vierling, M.D.	156,000[4]	*
Walter C. Ogier	0	*
Roy Eddleman	451,169[5]	2.6%
Marvin S. Hausman, M.D.	676,583[6]	3.8%
Jack E. Stover	70,000[7]	*
Amy Factor	927,500[8]	5.1%
Thomas C. Seoh	67,500[7]	*
Dennis Kogod	57,500[7]	*
Thomas Tully	67,500[7]	*
Richard W. Bank, M.D.	200,000[9]	1.1%
Scott L. Hayashi	32,000[7]	*
David J. Zeffren	72,000[10]	*
Shawn P. Cain	18,750[7]	*
Gary Ballen 140 Burlingame, Los Angeles, California 90049	1,139,222[11]	6.3%

LibertyView Funds, LP 111 River Street - Suite 1000 Hoboken, NJ 07030-5776	1,578,892[12]	8.8%

LibertyView Special Opportunities Fund, LP 111 River Street -- Suite 1000 Hoboken, NJ 07030-5776	2,382,444[13]	13.1%
Neuberger Berman LLC 111 River Street - Suite 1000 Hoboken, NJ 07030-5776	4,484,388[14]	23.9%
All executive officers and directors as a group (14 persons)	5,127,002[15]	26.4%

* Less than 1%.

(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, warrants and convertible securities currently exercisable or convertible, or exercisable or convertible within 60 days, are deemed outstanding, including for purposes of computing the percentage ownership of the person holding such option, warrant or convertible security, but not for purposes of computing the percentage of any other holder.

(2) Includes currently exercisable options to purchase 78,000 shares of common stock.

(3) Consists of 2,500,000 shares owned by the A & K Demetriou Family Trust, of which Achilles A. Demetriou, M.D., Ph.D. and Kristin P. Demetriou each are co-trustees with the right to vote or dispose of the trust's shares.

(4) Consists of currently exercisable options to purchase 156,000 shares of common stock.

(5) Consists of currently exercisable options to purchase 88,500 shares of common stock and 362,669 shares of common stock owned by Spectrum Laboratories, Inc. Mr. Eddleman is the Chairman of the Board and Chief Executive Officer of Spectrum Laboratories, Inc.

(6) Consists of (i) currently exercisable options to purchase 145,083 shares of common stock, (ii) currently exercisable warrants to purchase 187,500 shares of common stock, (iii) 100,000 shares owned by the Marvin Hausman Revocable Trust, and (iv) 244,000 shares owned by Northwest Medical Research, Inc. Dr. Hausman is the trustee of the Marvin Hausman Revocable Trust and the Chief Executive Officer and principal stockholder of Northwest Medical Research, Inc.

(7) Consists of currently exercisable options.

(8) Consists of (i) currently exercisable options to purchase 512,500 shares of common stock, (ii) warrants to purchase 200,000 shares exercisable by AFO Advisors, LLC, (iii) warrants to purchase 100,000 shares exercisable by AFO Capital Advisors, LLC, (iv) 5,000 shares owned by the Jay H. Oyer and Amy Factor Foundation, (v) 5,000 shares owned by the Melissa H. Oyer Trust, (vi) 5,000 shares owned by the Zachary D. Oyer Trust, and (vii) 100,000 shares owned by AFO Capital Advisors, LLC. Amy Factor is the owner and President of AFO Capital Advisors, LLC and AFO Advisors, LLC. She is also the trustee of The Jay H. Oyer and Amy Factor Family Foundation, The Melissa H. Oyer Trust, and The Zachary D. Oyer Trust and has voting and investment control of the securities of these entities.

(9) Consists of (i) currently exercisable options to purchase 120,000 shares of common stock, (ii) a warrant to purchase 40,000 shares of common stock exercisable by Richard W. Bank, M.D. and (iii) 40,000 shares of common stock owned by Richard W. Bank. M.D.

(10) Consists of (i) 25,000 shares owned by Mira Zeffren, David Zeffren's wife, (ii) warrants to purchase 25,000 shares registered in the name of Mira Zeffren, and (iii) currently exercisable options held by David Zeffren for the purchase of 22,000 shares of common stock.

(11) Consists of (i) 417,000 shares of common stock registered in Mr. Ballen's name, (ii) currently exercisable warrants to purchase 600,000 shares of common stock owned by Mr. Ballen, and (iii) 122,222 shares registered in the name of American Charter & Marketing LLC, over which Mr. Ballen has voting and investment control.

(12) Consists of (i) 1,100,619 shares of common stock and (ii) currently exercisable warrants to purchase 478,273 shares of common stock. LibertyView Funds, LP, LibertyView Special Opportunities Fund, LP and Trust D for a Portion of the Assets of the Kodak Retirement Income Plan have a common investment advisor, Neuberger Berman, LLC, that has voting and dispositive power over the shares held by them, which is exercised by Richard A. Meckler. Since they have hired a common investment advisor, these entities are likely to vote together. Additionally, there may be common investors within the different accounts managed by the same investment advisor. The General Partner of LibertyView Special Opportunities Fund, LP and LibertyView Funds, LP is Neuberger Berman Asset Management, LLC, which is affiliated with Neuberger Berman, LLC, a registered broker-dealer. LibertyView Capital Management, a division of Neuberger Berman, LLC, is affiliated with the General Partner of the LibertyView Health Sciences Fund, LP. The shares were purchased for investment in the ordinary course of business and at the time of purchase, there were no agreements or understandings, directly or indirectly, with any person to distribute the shares. Trust D for a Portion of the Assets of the Kodak Retirement Income Plan is not in any way affiliated with a broker-dealer.

(13) Consists of (i) 1,724,169 shares of common stock and (ii) currently exercisable warrants to purchase 658,275 shares of common stock. LibertyView Special Opportunities Fund, LP, LibertyView Funds, LP and Trust D for a Portion of the Assets of the Kodak Retirement Income Plan have a common investment advisor, Neuberger Berman, LLC, that has voting and dispositive power over the shares held by them, which is exercised by Richard A. Meckler. Since they have hired a common investment advisor, these entities are likely to vote together. Additionally, there may be common investors within the different accounts managed by the same investment advisor. The General Partner of LibertyView Special Opportunities Fund, LP and LibertyView Funds, LP is Neuberger Berman Asset Management, LLC, which is affiliated with Neuberger Berman, LLC, a registered broker-dealer. LibertyView Capital Management, a division of Neuberger Berman, LLC, is affiliated with the General Partner of the LibertyView Health Sciences Fund, LP. The shares were purchased for investment in the ordinary course of business and at the time of purchase, there were no agreements or understandings, directly or indirectly, with any person to distribute the shares. Trust D for a Portion of the Assets of the Kodak Retirement Income Plan is not in any way affiliated with a broker-dealer.

(14) Includes shares of common stock and currently exercisable warrants to purchase shares of common stock held by Liberty Funds, LP and LibertyView Special Opportunities Fund, LP (see footnotes 12 and 13). Also includes (i) 386,689 shares of common stock held by Trust D for a Portion of the Assets of the Kodak Retirement Income Fund and (ii) currently exercisable warrants to purchase 136,363 shares of common stock held by Trust D for a Portion of the Assets of the Kodak Retirement Income Plan. LibertyView Funds, LP, LibertyView Special Opportunities Fund, LP and Trust D for a Portion of the Assets of the Kodak Retirement Income Plan have a common investment advisor, Neuberger Berman, LLC, that has voting and dispositive power over the shares held by them, which is exercised by Richard A. Meckler. Since they have hired a common investment advisor, these entities are likely to vote together. Additionally, there may be common investors within the different accounts managed by the same investment advisor. The General Partner of LibertyView Special Opportunities Fund, LP and LibertyView Funds, LP is Neuberger Berman Asset Management, LLC, which is affiliated with Neuberger Berman, LLC, a registered broker-dealer. LibertyView Capital Management, a division of Neuberger Berman, LLC, is affiliated with the General Partner of the LibertyView Health Sciences Fund, LP. The shares were purchased for investment in the ordinary course of business and at the time of purchase, there were no agreements or understandings, directly or indirectly, with any person to distribute the shares. Trust D for a Portion of the Assets of the Kodak Retirement Income Plan is not in any way affiliated with a broker-dealer.

(15) Includes currently exercisable options and warrants to purchase 1,995,333 shares of common stock.

SELLING STOCKHOLDERS

Selling Stockholder Table

The shares to be offered by the selling stockholders are "restricted" securities under applicable federal and state securities laws and are being registered under the Securities Act of 1933, as amended (the “Securities Act”), to give the selling stockholders the opportunity to publicly sell or otherwise dispose of those shares. The registration of these shares does not require that any of the shares be offered or sold by the selling stockholders. The shares included in this prospectus may be disposed of by the selling stockholders or their transferees 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. We will not control or determine the price at which a selling stockholder decides to dispose of its shares.

No estimate can be given as to the amount or percentage of our common stock that will be held by the selling stockholders after any sales or other dispositions made pursuant to this prospectus because the selling stockholders are not required to sell any of the shares being registered under this prospectus. The following table assumes that the selling stockholders will sell all of the shares listed in this prospectus.

The following table sets forth the beneficial ownership of the selling stockholders:

	Beneficial Ownership Before Offering[1]			Beneficial Ownership After Offering[1]	
Selling Stockholder	Number of Shares	Percent	Number of Shares Being Offered	Number of Shares	Percent
AFO Capital Advisors, LLC[2]	200,000	1.1%	200,000		*
AFO Advisors, LLC[2]	200,000	1.1%	200,000		*
The Jay H. Oyer and Amy Factor Family Foundation[2]	5,000	*	5,000		*
The Melissa H. Oyer Trust[2]	5,000	*	5,000		*
The Zachary D. Oyer Trust[2]	5,000	*	5,000		*
American Charter & Marketing LLC[3]	122,222	*	122,222		*
Alexander Angerman & Judith Angerman Trustees for the Angerman Family Trust[4]	337,500	1.9%	337,500		*
Gary Ballen	1,017,000	5.6%	1,017,000		*
Mulberry Development S.A., Panama[5]	25,000	*	25,000		*
Richard W. Bank	200,000	1.1%	80,000	120,000	*
H. Gerald Bidwell Revocable Trust[6]	100,000	*	100,000		*
Walter C. Bowen	100,000	*	100,000		*
Jacqueline B. Brandwynne	200,000	1.1%	200,000		*
Brender Services Limited[7]	222,222	1.3%	222,222		*
Gosse Bruinsma	100,000	*	100,000		*
Robert G. Burford & Martha Burford JTTEN	50,000	*	50,000		*
Cedars-Sinai Medical Center[8]	681,818	3.9%	681,818		*

John A. Combias	100,000	*	100,000	*
National Investor Services Corp FBO Louis G. Cornacchia Roth IRA	100,000	*	100,000	*
Dalworth Capital Ltd.[9]	200,000	1.1%	200,000	*
Joseph R. Edington IV[10]	68,750	*	68,750	*
Triax Capital Management, Inc.[10]	244,000	1.4%	244,000	*
EPM AG[11]	25,000	*	25,000	*
EPM Holding AG[11]	50,000	*	50,000	*
Richard I. Fedder	200,000	1.1%	200,000	*
Michael Feves	100,000	*	100,000	*
Larry S. Flax Revocable Trust	100,000	*	100,000	*
Steven Brown	50,000	*	50,000	*
Eric Hutchings	50,000	*	50,000	*
Darren Abe	50,000	*	50,000	*
James Sandberg	50,000	*	50,000	*
John Flugum	50,000	*	50,000	*
Ernest F. Fox, Jr. TTEE for the Fran Fox Trust[12]	60,000	*	60,000	*
Mary Lou Fox	20,000	*	20,000	*
Marc Gelman	237,500	1.4%	237,500	*
Manuel P. Graiwer	337,500	1.9%	337,500	*
Granadilla Holdings Ltd.[13]	200,000	1.1%	200,000	*
Adam Hausman	15,000	*	15,000	*
Jonathan Hausman	68,750	*	68,750	*
Marvin S. Hausman TTEE for the Marvin S. Hausman Revocable Trust[14]	237,500	1.4%	237,500	*
Northwest Medical Research Inc.[14]	244,000	1.4%	244,000	*
Heinz Hofliger	50,000	*	50,000	*
Sanford J. Hillsberg[15]	49,833	*	49,833	*
The Hillsberg Foundation[15]	5,000	*	5,000	*
William D. Huyette & Shirley A. Huyette JTWROS	60,000	*	60,000	*
Heather Ann Huyette Ochoa	20,000	*	20,000	*
Jason Daniel Huyette	20,000	*	20,000	*
Ben Jakobovits	100,000	*	100,000	*
Gary Kaplan & Susan Kaplan Family Trust	100,000	*	100,000	*
Ron S. Kaufman	50,000	*	50,000	*

Philip Klein	500,000	2.8%	500,000	*
Charles F. Kivowitz & Alexandra Kivowitz Co-Trustees for the Kivowitz Family Trust[16]	100,000	*	100,000	*
Elena Konstat	50,000	*	50,000	*
Howard Lifshutz & Esther Lifshutz JTTEN	115,000	*	115,000	*
Livorno Latin America Promotions B.V.[17]	300,000	1.7%	300,000	*
P. Dennis & Barbara Lowry JTTEN	100,000	*	100,000	*
Norbert V. Mang	50,000	*	50,000	*
Scott Thomas McKillip	50,000	*	50,000	*
Manfred Mosk[18]	151,333	*	151,333	*
Technomedics Management Systems, Inc.[18]	228,750	1.3%	228,750	*
Norman J. Nemoy & Carole Curb-Nemoy TENCOM	100,000	*	100,000	*
Arthur C. Piculell, Jr. & Dee W. Piculell JTTEN	237,500	1.4%	237,500	*
Richard D. Reinisch & Grace A. Reinisch JTTEN	200,000	1.1%	200,000	*
Ira Rosenberg	50,000	*	50,000	*
Richard L. Rosenfield	100,000	*	100,000	*
David Rubin & Gitel Rubin JTTEN	100,000	*	100,000	*
Anita Schmid	40,000	*	40,000	*
Seashore Investment Ltd. (BVI) - Gerlach & Company [19]	100,000	*	100,000	*
Blossom Shelton	50,000	*	50,000	*
Elliot L. Shelton	237,500	1.4%	237,500	*
Philip Sobol & Debra Sobol Revocable Trust	381,800	2.2%	381,800	*
Thomas W. Somers	50,000	*	50,000	*
Spectrum Laboratories Inc.[20]	362,669	2.1%	362,669	*
Stephenson Ventures[21]	500,000	2.8%	500,000	*
Suncraft Limited[22]	764,000	4.3%	764,000	*
Thomas G. Walsh	150,000	*	150,000	*
Lisa Weiss	50,000	*	50,000	*
David Wohlberg	68,750	*	68,750	*
Wolfe Axelrod Weinberger Retirement Plan[23]	100,000	*	100,000	*
Wolfe Axelrod Weinberger Associates, LLC[23]	75,000	*	75,000	*
Zevi Wolmark & Diana Wolmark JTTEN	80,000	*	80,000	*
Mira Zeffren	50,000	*	50,000	*
Bristol Investment Fund, Ltd.[24]	400,773[25]	2.3%	400,773	*
Brookstone Biotech Ventures, LP[26]	138,389[27]	*	138,389	*
Cranshire Capital, L.P.[28]	39,690[29]	*	39,690	*
Crescent International Ltd.[30]	139,920[31]	*	139,920	*
Dr. Susanne Schoen	15,292[32]	*	15,292	*

Heinz Hoefliger	38,230[33]	*	38,230		*
4P Management Partners, S.A.[34]	50,530[35]	*	50,530		*
Arnd Wolpers	5,292[36]	*	5,292		*
Hilary Lea Shane	39,690[37]	*	39,690		*
LibertyView Funds, LP[38]	1,578,892[39]	8.8%	1,294,398	284,494	1.1%
LibertyView Special Opportunities Fund, LP[40]	2,382,444[41]	13.1%	1,835,979	546,465	2.1%
Lindsey A. Rosenwald	114,986[42]	*	114,986		*
Nite Capital LP[43]	35,919[44]	*	35,919		*
Omicron Master Trust[45]	59,864[46]	*	59,864		*
Prolate LLC[47]	35,919[48]	*	35,919		*
Portside Growth and Opportunity Fund[49]	296,274[50]	1.7%	296,274		*
SIBEX Capital Fund Inc.[51]	345,972[52]	2.0%	345,972		*
TCMP3 Partners[53]	37,044[54]	*	37,044		*
Truk International Fund, LP[55]	2,155[56]	*	2,155		*
Truk Opportunity Fund, LLC[57]	33,764[58]	*	33,764		*
Vicis Capital Master Fund[59]	66,694[60]	*	66,694		*
Whalehaven Capital Fund Limited[61]	59,864[62]	*	59,864		*
Rodman & Renshaw[63]	121,085[64]	*	121,085		*
Trust D for a portion of the assets of the Kodak Retirement Income Plan[65]	523,052[66]	3.0%	409,090	113,962	*
Anna Zalk	136,363[67]	*	136,363		*

*Less than 1%

(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, warrants and convertible securities currently exercisable or convertible, or exercisable or convertible within 60 days, are deemed outstanding, including for purposes of computing the percentage ownership of the person holding the option, warrant or convertible security, but not for purposes of computing the percentage of any other holder.

(2) Amy Factor is the owner and President of AFO Capital Advisors, LLC and AFO Advisors, LLC. She is also the trustee of The Jay H. Oyer and Amy Factor Family Foundation, The Melissa H. Oyer Trust, and The Zachary D. Oyer Trust and has voting and investment control of the securities of these entities. Amy Factor also is a director of this company. See “Security Ownership of Certain Beneficial Owners and Management.”

(3) Gary Ballen has voting and investment control over the securities owned by American Charter & Marketing LLC.

(4) Alexander Angerman and Judith Angerman Trustees have voting and investment control over the securities owned by the Angerman Family Trust.

(5) Ursula Stabinger has voting and investment control over the securities owned by Mulberry Development S.A., Panama.

(6) H. Gerald Bidwell has voting and investment control over the securities owned by the H. Gerald Bidwell Revocable Trust.

(7) Wong Wah On Edward has voting and investment control over the securities owned by Brender Services Limited.

(8) Edward M. Prunchunas has voting and investment control over the securities owned by Cedars-Sinai Medical Center.

(9) Abe Janz and James Ladner have voting and investment control over the securities owned by Dalworth Capital Ltd.

(10) Joseph Edington has voting and investment control over the securities owned by Triax Capital Management, Inc.

(11) K. Freimann has voting and investment control over the securities owned by EPM AG and EPM Holdings AG.

(12) Ernest F. Fox has voting and investment control over the securities Ernest F. Fox, Jr. TTEE for the Fran Fox Trust.

(13) Peter J. Brigham has voting and investment control over the securities owned by Granadilla Holdings Ltd.

(14) Dr. Hausman is the trustee of the Marvin Hausman Revocable Trust and the Chief Executive Officer and principal stockholder of Northwest Medical Research, Inc. As such, Dr. Hausman has voting and investment control of the securities owned by these entities. Dr. Hausman also is a director of this company.

(15) Sanford J. Hillsberg and Herbert Hillsberg have voting and investment control of the securities owned by The Hillsberg Foundation.

(16)

Charles F. Kivowitz and Alexandra Kivowitz have voting and investment control over the securities owned by Charles F. Kivowitz & Alexandra Kivowitz Co-Trustees for the Kivowitz Family Trust.

(17) Atrene Pemberton has voting and investment control over the securities owned by Livorno Latin America Promotions B.V.

(18) Technomedics Management and Systems, Inc. is owned and controlled by Dr. Manfred Mosk, who has voting and investment control of the securities owned by Technomedics Management and Systems, Inc.

(19) Steve Boom has voting and investment control over the securities owned by Seashore Investment Ltd.

(20) Roy Eddleman has voting and investment control over the securities owned by Spectrum Laboratories Inc.

(21) Emmet Stephenson, Jr. has voting and investment control over the securities owned by Stephenson Ventures.

(22) Cheuk-Ho Tam has sole voting and investment control over the securities owned by Suncraft Limited.

(23) Donald C. Weinberger and Stephen D. Axelrod have voting and investment control over the securities owned by (i) Wolfe Axelrod Weinberger Associates, LLC and (ii) Wolfe Axelrod Weinberger Retirement Plan.

(24) Paul Kessler, manager of Bristol Capital Advisors LLC, the investment advisor to Bristol Investment Fund, Ltd., has voting and investment control of the securities held by Bristol Investment Fund, Ltd. Paul Kessler disclaims beneficial ownership of these securities.

(25) Includes currently exercisable warrants to purchase 173,500 shares of common stock.

(26) Robert L. Carver, President of Brookstone Capital, Inc., General Partner of Brookstone Biotech Ventures, LP, has voting and investment control of the securities held by Brookstone Biotech Ventures, LP.

(27) Includes currently exercisable warrants to purchase 47,891 shares of common stock..

(28) Mitchell Kopin, President of Downsview Capital, Inc., the General Partner of Cranshire Capital, L.P., has voting and investment control of the securities held by Cranshire Capital, L.P.

(29) Consists of currently exercisable warrants to purchase 39,690 shares of common stock..

(30) Mel Craw and Maxi Brezzi, managers of Cantara (Switzerland) SA, the investment advisor to Crescent International Ltd., have voting and investment control of the securities held by Crescent International Ltd. Mel Craw and Maxi Brezzi disclaim beneficial ownership of these securities.

(31) Includes currently exercisable warrants to purchase 52,920 shares of common stock.

(32) Includes currently exercisable warrants to purchase 5,292 shares of common stock.

(33) Includes currently exercisable warrants to purchase 13,230 shares of common stock.

(34) Konrad Meyer has voting and investment control of the securities held by 4P Management Partners, S.A.

(35) Includes currently exercisable warrants to purchase 38,230 shares of common stock.

(36) Consists of currently exercisable warrants to purchase 5,292 shares of common stock.

(37) Consists of currently exercisable warrants to purchase 39,690 shares of common stock.

(38) Neuberger Berman Asset Management, LLC is the general partner of LibertyView Funds, LP. Neuberger Berman LLC is the investment adviser to LibertyView Funds, LP and is responsible for the selection, acquisition and disposition of the portfolio securities by this fund. LibertyView Funds, LP is an affiliate of a registered broker-dealer. We have been informed by LibertyView Funds, LP that it acquired the securities offered by this prospectus for its own account in the ordinary course of business, and that, at the time it acquired such securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities.

(39) Includes currently exercisable warrants to purchase 478,273 shares of common stock.

(40) Neuberger Berman Asset Management, LLC is the general partner of LibertyView Special Opportunities Fund, LP. Neuberger Berman LLC is the investment adviser to LibertyView Special Opportunities Fund, LP and is responsible for the selection, acquisition and disposition of the portfolio securities by this fund. LibertyView Special Opportunities Fund, LP is an affiliate of a registered broker-dealer. We have been informed by LibertyView Special Opportunities Fund, LP that it acquired the securities offered by this prospectus for its own account in the ordinary course of business, and that, at the time it acquired such securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities.

(41) Includes currently exercisable warrants to purchase 658,275 shares of common stock.

(42) Includes currently exercisable warrants to purchase 59,864 shares of common stock.

(43) Keith Goodman has voting and investment control of the securities held by Nite Capital LP.

(44) Consists of currently exercisable warrants to purchase 35,919 shares of common stock.

(45) Omicron Capital, L.P., a Delaware limited partnership (“Omicron Capital”), serves as investment manager to Omicron Master Trust, a trust formed under the laws of Bermuda (“Omicron”), Omicron Capital, Inc., a Delaware corporation (“OCI”), serves as general partner of Omicron Capital, and Winchester Global Trust Company Limited (“Winchester”) serves as the trustee of Omicron. By reason of such relationships, Omicron Capital and OCI may be deemed to share dispositive power over the shares of our common stock owned by Omicron, and Winchester may be deemed to share voting and dispositive power over the shares of our common stock owned by Omicron. Omicron Capital, OCI and Winchester disclaim beneficial ownership of such shares of our common stock.

Omicron Capital has delegated authority from the board of directors of Winchester regarding the portfolio management decisions with respect to the shares of common stock owned by Omicron and, as of the date of this prospectus, Mr. Olivier H. Morali and Mr. Bruce T. Bernstein, officers of OCI, have delegated authority from the board of directors of OCI regarding the portfolio management decisions of Omicron Capital with respect to the shares of common stock owned by Omicron. By reason of such delegated authority, Messrs. Morali and Bernstein may be deemed to share dispositive power over the shares of our common stock owned by Omicron. Messrs. Morali and Bernstein disclaim beneficial ownership of such shares of our common stock and neither of such persons has any legal right to maintain such delegated authority. No other person has sole or shared voting or dispositive power with respect to the shares of our common stock being offered by Omicron, as those terms are used for purposes under Regulation 13D-G of the Securities Exchange Act of 1934, as amended. Omicron and Winchester are not “affiliates” of one another, as that term is used for purposes of the Securities Exchange Act of 1934, as amended, or of any other person named in this prospectus as a selling stockholder. No person or “group” (as that term is used in Section 13(d) of the Securities Exchange Act of 1934, as amended, or the SEC’s Regulation 13D-G) controls Omicron and Winchester.

(46) Consists of currently exercisable warrants to purchase 59,864 shares of common stock..

(47) S. Donald Sussman has voting and investment control of the securities held by Prolate LLC.

(48) Consists of currently exercisable warrants to purchase 35,919 shares of common stock.

(49) Ramius Capital Group, LLC ("Ramius Capital") is the investment adviser of Portside Growth and Opportunity Fund ("Portside") and consequently has voting control and investment discretion over securities held by Portside. Ramius Capital disclaims beneficial ownership of the shares held by Portside. Peter A. Cohen, Morgan B. Stark, Thomas W. Strauss and Jeffrey M. Solomon are the sole managing members of C4S & Co., LLC, the sole managing member of Ramius Capital. As a result, Messrs. Cohen, Stark, Strauss and Solomon may be considered beneficial owners of any shares deemed to be beneficially owned by Ramius Capital. Messrs. Cohen, Stark, Strauss and Solomon disclaim beneficial ownership of these shares.

(50) Includes currently exercisable warrants to purchase 119,729 shares of common stock..

(51) Viacheslav Chebotarevich and Oleg S. Krasnoshchek share voting and investment control of the securities held by SIBEX Capital Fund Inc.

(52) Includes currently exercisable warrants to purchase 119,728 shares of common stock..

(53) Steven Slawson and Walter Schenker have voting and investment control of the securities held by TCMP3 Partners.

(54) Consists of currently exercisable warrants to purchase 37,044 shares of common stock.

(55) Michael E. Fein and Stephen E. Saltzstein, as principals of Atoll Asset Management, LLC, the managing member of Truk International Fund, LP, have voting and investment control of the securities held by Truk International Fund, LP. Michael E. Fein and Stephen E. Saltzstein disclaim beneficial ownership of these securities.

(56) Consists of currently exercisable warrants to purchase 2,155 shares of common stock.

(57) Michael E. Fein and Stephen E. Saltzstein, as principals of Atoll Asset Management, LLC, the managing member of Truk Opportunity Fund, LLC, have voting and investment control of the securities held by Truk Opportunity Fund, LLC. Michael E. Fein and Stephen E. Saltzstein disclaim beneficial ownership of these securities.

(58) Consists of currently exercisable warrants to purchase 33,764 shares of common stock.

(59) Shad Stastney has voting and investment control of the securities held by Vicis Capital Master Fund.

(60) Includes currently exercisable warrants to purchase 23,945 shares of common stock.

(61) Derek Wood, Arthur Jones and Jennifer Kelley have voting and investment control of the securities held by Whalehaven Capital Fund Limited.

(62) Consists of currently exercisable warrants to purchase 59,864 shares of common stock.

(63) Thomas G. Pinou, Chief Financial Officer of Rodman & Renshaw, LLC has voting and investment control of the securities held by Rodman & Renshaw, LLC.

(64) Consists of shares issuable upon the exercise of currently exercisable warrants to purchase shares of common stock.

(65) Boston Safe Deposit and Trust Company and Mellon Bank (DE) N.A. are the co-trustees of Trust D for a Portion of the Assets of the Kodak Retirement Income Plan (“Trust D”). Neuberger Berman, LLC is the investment manager of Trust D and is responsible for the selection, acquisition and disposition of the portfolio securities by Trust D pursuant to an investment management agreement. Trust D is not affiliated with a broker-dealer. Neuberger Berman, LLC, is a registered broker-dealer. We have been informed by Trust D that it acquired the securities offered by this prospectus for its own account in the ordinary course of business, and that, at the time it acquired such securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities.

(66) Includes currently exercisable warrants to purchase 136,363 shares of common stock.

(67) Includes currently exercisable warrants to purchase 45,454 shares of common stock.

Relationships with Selling Stockholders

Other than Rodman & Renshaw LLC, all stockholders, other than those discussed below, are investors who acquired their securities from us in one or more private placements and who have had no position, office, or other material relationship (other than as purchasers of securities) with us or any of our affiliates within the past three years.

We are currently leasing office space and certain research facilities from Cedars-Sinai Medical Center under a three-year lease that expires on June 30, 2007. In addition, in 2000, Cedars-Sinai Medical Center granted us the exclusive and worldwide rights to five patents and other technical information, and we granted Cedars-Sinai Medial Center the nonexclusive rights to any products derived from the patents. As consideration for the license, we will have to pay Cedars-Sinai Medical Center royalty fees equal to 1.5% of the gross sales price of royalty bearing products. From the third to tenth years of the license, the royalty fee percent will phase out evenly to 0%. See “Certain Relationships and Related Transactions,” below. In connection with the grant of the foregoing license, Cedars-Sinai also purchased the 681,818 shares included in this prospectus for $250,000.

We are a party to various agreements with Spectrum Laboratories, Inc., including a license agreement pursuant to which Spectrum Labs granted us an exclusive, worldwide license to develop, make, use and distribute products based on two Spectrum Labs patents, and a four-year research agreement pursuant to which we have agreed to combine our expertise and technologies to enable us to (i) develop liver assist systems, (ii) conduct pre-clinical and Phase I-III clinical testing, (iii) obtain regulatory approvals and (iv) commercialize liver assist systems. See “Certain Relationships and Related Transactions,” below. Concurrently with these agreements, in December 2001, Spectrum Labs also purchased, for $54,400, the 362,669 shares of our common stock included in this prospectus. Mr. Roy Eddleman, one of the members of our Board of Directors, is the Chairman and CEO of Spectrum Labs.

AFO Capital Advisors, LLC (“AFO Capital”) purchased the 100,000 shares of common stock, and the warrants to purchase the additional 100,000 shares, which shares are included in this prospectus, in the private placement we effected in October 2003. In November 2003, we entered into a consulting agreement with AFO Advisors, LLC (“AFO Advisors”) pursuant to which AFO Advisors agreed to provide financial consulting services to us. AFO Capital and AFO Advisors are both controlled by Amy Factor, who from March 31, 2005 until November 8, 2005 had been our interim Chief Executive Officer (see, “Employment Agreements,” above). Under our consulting agreement with AFO Advisors, we granted Amy Factor options to purchase shares of our common stock and agreed to compensate AFO Advisors on an hourly basis for its services. AFO Advisors agreed that the financial consulting services under that agreement would be provided by Amy Factor. To date, we have paid a total of $336,000 under the consulting agreement and have granted Ms. Factor options and warrants to purchase a total of 720,000 shares. The Jay H. Oyer and Amy Factor Family Foundation, The Melissa H. Oyer Trust, and The Zachary D. Oyer Trust are family trusts that are related to Amy Factor.

Technomedics Management and Systems, Inc. is owned and controlled by Dr. Manfred Mosk. Dr. Mosk was a director of ATI from October 2001 until October 2003. In August 2002, Technomedics Management and Systems, Inc. was issued a warrant to purchase 100,000 shares of common stock as compensation for advisory services rendered to ATI. In June 2002, we issued 70,000 shares of common stock to Dr. Mosk as compensation for services he rendered to us. We valued the 70,000 shares for operating expense purposes at $10,500. The additional shares listed in the table that are owned by Dr. Mosk, including the shares exercisable under outstanding warrants owned by Dr. Mosk, were acquired by him in cash purchases of such securities (including the conversion of a convertible note issued to other investors).

Dr. Richard Bank was a member of this company’s Board of Directors from December 2003 through January 2005. Dr. Bank later rejoined the Board of Directors in January 2006. Dr. Bank was a Senior Vice President of Neuberger Berman, LLC, the parent company of the LibertyView funds, including LibertyView Special Opportunities Fund, LP and LibertyView Funds, LP, and was previously the portfolio manager of LibertyView Health Sciences Fund, LP. Dr. Richard Bank received a warrant to purchase 40,000 shares of our common stock as a fee for introducing certain

investors to this company. The warrant is exercisable at any time until January 5, 2007 at an exercise price of $2.50 per share. In addition to the shares included in this prospectus, Dr. Bank also holds options to purchase a total of 115,000 shares of our common stock, which shares he received as compensation as a member of our Board of Directors.

On January 11, 2005, two affiliates of LibertyView Health Sciences Fund, LP (LibertyView Special Opportunities Fund, LP and LibertyView Funds, LP) purchased a total of 1,357,466 shares of our common stock and warrants to purchase an additional 678,733 shares of our common stock. The foregoing purchases were part of a $6,611,905 private equity financing to a group of institutional investors and accredited investors. In that offering, we sold 2,991,812 shares of our common stock at a price of $2.21 per share to the investors and issued to them warrants to purchase an additional 1,495,906 shares of our common stock at an exercise price of $2.90 per share.

Dr. Hausman is a member of our Board of Directors. The 237,500 shares beneficially owned by Dr. Hausman and included in this prospectus consist of 100,000 shares and warrants to purchase 137,500 shares of common stock, which shares that were purchased for cash or received upon the conversion of a $50,000 convertible loan that he made to us in September 2003. In addition to the foregoing beneficially owned shares, in July 2003, ATI granted Dr. Marvin Hausman a five-year option to purchase 50,000 shares of common stock, at an exercise price of $1.00 per share, in consideration for Dr. Hausman's efforts in introducing us to an investor who made a $250,000 investment in ATI. Dr. Hausman also holds options to purchase a total of 168,000 shares of our common stock, which shares he received as compensation as a member of our Board of Directors.

We issued a warrant to purchase 7,500 shares of our common stock to Adam Hausman as a finder's fee for introducing us to an investor. Adam Hausman is the son of Dr. Marvin Hausman, one of the members of our Board of Directors. The warrant is exercisable at any time until January 5, 2007 at an exercise price of $2.50 per share.

Sandford J. Hillsberg is a managing partner of Troy & Gould Professional Corporation, our former corporate and securities law firm. Mr. Hillsberg purchased the shares included in this prospectus for cash in a private placement that we effected in August 2002.

On March 30, 2004, we entered into a retainer agreement with Wolfe Axelrod Weinberger Associates LLC, an investor relations firm, pursuant to which Wolfe Axelrod agreed to provide us with investor relations services for a nine-month period ending December 31, 2004. At our option, we terminated the agreement in December 2004.. Under the agreement, we were required to pay Wolfe Axelrod Weinberger Associates LLC $6,000 per month. In addition, we granted to Wolfe Axelrod Weinberger Associates LLC a warrant to purchase 150,000 shares of our common stock at a price of $3.40 per share in April 2004. Since we did not extend the retainer agreement beyond December 31, 2004, one half of the warrant (i.e. the right to purchase 75,000 shares) expired and were terminated on December 31, 2004.

Mira Zeffren is the wife of David Zeffren. Mrs. Zeffren acquired the shares and warrants referred to in this prospectus in a private placement in October 2003. Mr. Zeffren joined the Company in February 2004 as a consultant and was later appointed as our Vice President of Product Development in March 2005.

We paid Rodman & Renshaw a cash fee of $252,833 at the closing of our January 11, 2005 private placement and issued to Rodman & Renshaw warrants to purchase 114,404 shares of our common stock, which shares are included in this prospectus. The warrants issued to Rodman & Renshaw have the same terms and conditions as the warrants issued to the investors in the private placement. In addition, we paid Rodman & Renshaw $25,000 as a reimbursement the out-of-pocket expenses it incurred in the offering.

4P Management Partners S.A. of Zurich, Switzerland has been our investor relations service company in Europe since July, 2004. In connection with retaining 4P Management, we issued two warrants to 4P Management Partners S.A. to purchase an aggregate of 100,000 shares of common stock. The securities of 4P Management included in this

prospectus were purchased for cash by 4P Management in the January 11, 2005 private placement.

The information in the above table is as of the date of this prospectus. Information concerning the selling stockholders may change from time to time and any such changed information will be described if and when necessary in supplements to this prospectus or, if appropriate, a post-effective amendment to the registration statement of which this prospectus is a part.

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 pursuant to applicable 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, 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.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Spectrum Laboratories, Inc. Agreement

On December 26, 2001, Arbios entered into various agreements with Spectrum Laboratories, Inc. Concurrently with these agreements, Spectrum Laboratories also purchased 362,669 shares of our common stock. Mr. Eddleman, one of the members of our Board of Directors, is the Chairman and Chief Executive Officer of Spectrum Laboratories. The three principal agreements entered into by Arbios and Spectrum Laboratories in December 2001 are the following:

A. *License Agreement.* Spectrum Laboratories granted to Arbios an exclusive, worldwide license to develop, make, use and distribute products based on two Spectrum Laboratories patents. Provided that Arbios purchases the hollow fiber cartridges that it expects that it will need for its products from Spectrum Laboratories, Arbios will not have to pay a royalty for the license. In the event that Spectrum Labs is not the manufacturer of the hollow fiber cartridges, Arbios will have to pay Spectrum Labs a royalty for the license (see, "Business--Manufacturing and Supply Agreement"). Spectrum Labs also agreed to grant Arbios a right of first refusal to obtain a license to make, use, develop or distribute products based on Spectrum Labs' technology other than in liver assisted products, provided that such other products are in the fields of artificial blood therapy and bioprocessing and therapeutic devices.

B. *Research Agreement.* Arbios and Spectrum Laboratories also entered into a four-year research agreement pursuant to which Arbios and Spectrum Laboratories agreed to combine their expertise and their respective technologies to enable Arbios to (i) develop liver assist systems, (ii) conduct pre-clinical and Phase I-III clinical testing, (iii) obtain regulatory approvals and (iv) commercialize such liver assist systems. Under the terms of the agreement, Spectrum Laboratories agreed to perform certain research toward the development of hollow fiber-in-fiber modules for Arbios' liver assist systems during product development, pre-clinical and clinical testing at no cost to Arbios. Spectrum Laboratories also agreed to pay for all costs and expenses in connection with the research program and agreed to allocate a total of $550,000 to the program during the research term. In October 2002, Arbios and Spectrum Laboratories agreed that Spectrum Laboratories has now satisfied its research and development obligations, that ATI owed Spectrum Laboratories an additional $54,960 for services provided by Spectrum Laboratories (which amount was paid in full in 2004), and that the 362,669 shares of Arbios common stock previously issued to Spectrum Laboratories are now fully vested. Spectrum Laboratories has agreed to perform additional research and development work as may be requested by Arbios on such terms as the parties may agree to in good faith negotiations.

C. *Manufacturing and Supply Agreement.* Arbios and Spectrum Laboratories have also entered into an agreement pursuant to which the parties have agreed that Spectrum Laboratories will manufacture for Arbios the hollow fiber cartridges with fiber-in-fiber geometry for its LIVERAID™ device. The agreement provides that the price of the hollow fiber-in-fiber cartridges to be sold by Spectrum Laboratories to Arbios will be determined by good faith negotiations between the parties. Arbios has agreed that it will not purchase cartridges with fiber-in-fiber geometry from any other manufacturer unless Spectrum Laboratories is either unable or unwilling to manufacture the cartridges. In the event that Spectrum Laboratories is unwilling to manufacture the fiber-in-fiber cartridges for Arbios, Arbios shall have the right to have a third party manufacture the cartridges for it, in which case Arbios will pay Spectrum Laboratories a royalty for the license granted to Arbios by Spectrum Laboratories under the License Agreement. The royalty shall be equal to 3% of the net sales (total sales less taxes, returns, transportation, insurance, and handling charges) attributed solely to the fiber-in-fiber cartridges.

Agreement with Marvin Hausman, M.D.

On October 17, 2005, we entered into a Consulting Agreement with Marvin S. Hausman, M.D. Dr. Hausman is a member of our Board of Directors. Under the Consulting Agreement, Dr. Hausman agreed to provide us with consulting services in support of our SEPET clinical trial program. We agreed to pay Dr. Hausman a $10,000 monthly retainer for a period of three months for his consulting services and granted a five-year non-qualified stock option to purchase 30,000 shares of our common stock under our 2005 Stock Incentive Plan, of which 25,000 shares were ultimately awarded to him based on certain terms of the Consulting Agreement. The exercise price of the foregoing options is $1.80 per share and vest on a monthly basis for a period of one year beginning January 1, 2006.

Agreement with AFO Advisors, LLC

Pursuant to a verbal arrangement with AFO Advisors, LLC, we engaged Amy Factor to provide investor relations services to support our fundraising efforts as well as provide strategic and financial advice. Ms. Factor is a member of our Board of Directors and is the President of AFO Advisors, LLC. Under the arrangement, we agreed to pay Ms. Factor a $7,500 monthly retainer for a period of three months commencing January 1, 2006 to March 31, 2006 and granted a five year non-qualified stock option to purchase 30,000 shares of our common stock under our 2005 Stock Incentive Plan. The exercise price of the foregoing options is $1.80 per share and vest on a monthly basis during for a period of three months beginning January 1, 2006. We have verbally extended the arrangement to provide Ms. Factor with $7,500 per month for investor relations services for an indefinite period.

Warrant to Adam Hausman

On February 17, 2004, we issued 7,500 shares of common stock and a warrant to purchase 7,500 shares of common stock to Adam Hausman, who is the son of Marvin S. Hausman, M.D., a member of our Board of Directors, as compensation for finder’s fees related to the October 2003 financing. The warrant has a three-year life and is exercisable at $2.50 per share.

DESCRIPTION OF SECURITIES

We are presently authorized to issue 60,000,000 shares of $0.001 par value common stock and 5,000,000 shares of $0.001 par value preferred stock. As of the date of this prospectus, we had 17,460,181 shares of common stock issued and outstanding and no preferred stock issued and outstanding.

Common Stock

The holders of our common stock are entitled to equal dividends and distributions per share with respect to the common stock when, as and if declared by the board of directors from funds legally available therefore. No holder of any shares of common stock has a preemptive right to subscribe for any of our securities, nor are any common shares subject to redemption or convertible into other securities. Upon liquidation, dissolution or winding-up of our company, and after payment of creditors and preferred stockholders, if any, the assets will be divided pro rata on a share-for-share basis among the holders of the shares of common stock. All shares of common stock now outstanding are fully paid, validly issued and non-assessable. Each share of our common stock is entitled to one vote with respect to the election of any director or any other matter upon which stockholders are required or permitted to vote. We have not paid any dividends on our common stock to date and do not anticipate that we will be paying dividends in the foreseeable future. Any payment of cash dividends on our common stock in the future will be dependent upon the amount of funds legally available, our earnings, if any, our financial condition, our anticipated capital requirements and other factors that the Board of Directors may think are relevant. However, we currently intend for the foreseeable future to follow a policy of retaining all of our earnings, if any, to finance the development and expansion of our business and, therefore, do not expect to pay any dividends on our common stock in the foreseeable future.

Preferred Stock

Under our articles of incorporation, the board of directors has the power, without further action by the holders of the common stock, to designate the relative rights and preferences of the preferred stock, and to issue the preferred stock in one or more series as designated by the board of directors. The designation of rights and preferences could include preferences as to liquidation, redemption and conversion rights, voting rights, dividends or other preferences, any of which may be dilutive of the interest of the holders of the common stock or the preferred stock of any other series. The issuance of preferred stock may have the effect of delaying or preventing a change in control of the company without further stockholder action and may adversely affect the rights and powers, including voting rights, of the holders of the common stock.

Registration Rights

In 2003, we entered into registration rights agreements with the investors who, in the aggregate, purchased 4,400,000 Units. Each Unit consisted of one share of common stock and one common stock purchase warrant. In those registration rights agreements, we agreed to file a registration statement, at our expense, to register the resale of the 4,400,000 shares of our common stock that are issuable upon the exercise of the warrants held by those investors. Our Board of Directors has also approved the registration of the 4,400,000 shares that were included in the Units. The registration statement is required to be filed after January 31, 2004 if (i) requested in writing by the holders of a majority of the then outstanding warrants (including any shares previously issued upon the exercise of the warrants), and (ii) the closing price of our common stock has exceeded $2.50 for 20 consecutive trading days. This prospectus includes the shares that we are obligated to register under the foregoing registration rights agreements.

The warrant that we issued to Wolfe Axelrod Weinberger Associates LLC for the purchase of 75,000 shares of our common stock granted the holder of that warrant “piggyback registration” rights. Under the piggyback registration provisions, we are required, subject to certain limited exceptions, to register the 75,000 shares of our common stock in any registration statement that we file. This prospectus includes the 75,000 shares that we are obligated to register

under the registration rights provision of the warrant.

In connection with the organization and initial capitalization of ATI, we granted certain “piggy-back” registration rights to The A & K Demetriou Family Trust, Jacek Rozga, and Cedars-Sinai Medical Center, our initial three stockholders. Under these agreements, subject to certain customary conditions and exceptions, the foregoing three stockholders have the right to include in any future registration statement filed by this company some or all of their shares of the common stock. The shares of common stock owned by Cedars-Sinai Medical Center have been included in a prior, currently effective, registration statement. Accordingly, unless that prior registration statement is withdrawn before Cedars-Sinai sells its shares under that registration statement, we will have no further obligation to register the shares of Cedars-Sinai. The A & K Demetriou Family Trust and Jacek Rozga have waived their rights to have their shares included in this prospectus.

On January 11, 2005, we sold 2,991,812 shares of our common stock and issued warrants to purchase 1,495,906 shares of our common stock. In connection with the sale of these securities, we entered into a registration rights agreement with the investors pursuant to which we agreed to file a registration statement, at our expense, to register the resale of the foregoing 2,991,812 shares of our common stock as well as the 1,495,906 shares of our common stock that are issuable upon exercise of the stock purchase warrants. This registration statement was prepared and filed as required by the foregoing registration rights agreement (to date, we believe that approximately 921,188 of the 2,991,812 shares that were covered by this prospectus have been sold by the holders thereof). This prospectus includes all of the shares that we are obligated to register under the foregoing January 11, 2005 registration rights agreement. We were required to use commercially reasonable efforts to have the registration statement declared effective by the SEC as soon as practicable. If sales cannot be made by the investors under this prospectus for any reason (including without limitation by reason of a stop order, or our failure to update the prospectus) for 20 consecutive days (or 45 days during any 12-month period), then we will be required to pay each investor, as liquidated damages and not as a penalty, an amount equal to 1.5% of the aggregate purchase price paid by such investor for his shares for each 30-day period or a pro rata payment for any portion thereof following the date by which this prospectus should have been effective.

On March 6, 2006, we announced that we have signed binding agreements and closed a private placement financing of Units, consisting of common stock and warrants, for gross proceeds of $1.35 million. Each Unit consists of one share of our common stock and one warrant to purchase 0.50 of a share of our common stock, comprising a total of 1,227,272 shares of our common stock and warrants to purchase 613,634 shares of our common stock. The offering was made to accredited investors, as defined in applicable SEC regulations. Under the terms of the purchase agreement, the Units were sold at a price of $1.10 per Unit, and the warrants will be exercisable for a period of five years at a price of $1.50 per share. Under the terms of the registration rights agreement, we agreed to file a registration statement with the SEC for the resale of the shares of common stock and the shares of common stock underlying the warrants sold in the private placement within 60 days of the March 6, 2006 closing. This prospectus includes 1,840,906 shares that we are obligated to register under the foregoing registration rights agreement. In the event that the resale registration statement has not been declared effective within certain time periods or if sales cannot be made pursuant to the registration statement following its effectiveness, each as described in the registration rights agreement, the we will be obligated to pay to each investor liquidated damages, subject to certain limitations set forth in the registration rights agreement.

Delaware Law and Certain Charter and By-law Provisions

The provisions of Delaware law and of our Certificate of Incorporation and By-laws discussed below could discourage or make it more difficult to accomplish a proxy contest or other change in our management or the acquisition of control by a holder of a substantial amount of our voting stock. It is possible that these provisions could make it more difficult to accomplish, or could deter, transactions that stockholders may otherwise consider to be in their best interests or our best interests.

Business Combinations. We are subject to the provisions of Section 203 of the General Corporation Law of the State of Delaware. Section 203 prohibits a publicly-held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. A “business combination” includes mergers, asset sales and other transactions resulting in a financial benefit to the interested stockholder. Subject to specified exceptions, an “interested stockholder” is a person who, together with affiliates and associates, owns, or within three years did own, 15% or more of the corporation’s voting stock.

Limitation of Liability; Indemnification. Our charter contains provisions permitted under the General Corporation Law of the State of Delaware relating to the liability of directors. The provisions eliminate a director’s liability for

monetary damages for a breach of fiduciary duty as a director, except in circumstances involving wrongful acts, such as the breach of a director's duty of loyalty or acts or omissions which involve intentional misconduct or a knowing violation of law. The limitation of liability described above does not alter the liability of our directors and officers under federal securities laws. Furthermore, our charter and by-laws contain provisions to indemnify our directors and officers to the fullest extent permitted by the General Corporation Law of the State of Delaware. These provisions do not limit or eliminate our right or the right of any stockholder of ours to seek non-monetary relief, such as an injunction or rescission in the event of a breach by a director or an officer of his duty of care to us. We believe that these provisions will assist us in attracting and retaining qualified individuals to serve as directors.

Special Meeting of Stockholders. Our By-laws provide that special meetings of our stockholders may be called only by our chairman of the board, chief executive officer or by our board of directors.

Advance Notice Requirements for Stockholder Proposals and Director Nominations. Our by-laws provide that stockholders seeking to bring business before an annual meeting of stockholders, or to nominate candidates for election as directors at an annual or special meeting of stockholders, must meet specified procedural requirements. These provisions may preclude stockholders from bringing matters before an annual meeting of stockholders or from making nominations for directors at an annual or special meeting of stockholders.

Preferred Stock Issuances. Our Certificate of Incorporation provides that, without stockholder approval, we can issue up to 5,000,000 shares of preferred stock with rights and preferences determined by our board of directors.

Shares Eligible for Future Sale

As of the date of this prospectus, we had 17,460,181 shares of common stock outstanding. That number does not include (i) the 2,115,000 shares that are reserved for issuance under outstanding options and that may be issued if and when the options are exercised, or (ii) 8,165,480 shares that may be issued upon the exercise of currently outstanding warrants (including the warrants to purchase 8,015,480 shares that are owned by the selling stockholders listed in this prospectus).

Freely Tradeable Shares After Offering. As of the date of this prospectus, excluding the shares that are covered by this prospectus, 2,721,588 shares of our 17,460,181 currently outstanding shares can be publicly resold. Upon the re-sale of the 9,993,593 currently outstanding shares covered by this prospectus, and the exercise and sale of the 8,015,480 warrant shares included in this prospectus, all of these 18,009,073 shares will also be freely tradable without restriction or limitation under the Securities Act. As a result, after the completion of this offering, there will be a total of 20,730,661 shares of our common stock that will be tradable without restriction under the Securities Act.

Rule 144. In general, under Rule 144 as currently in effect, a person (or persons whose shares are aggregated) who has beneficially owned restricted securities for at least one year, including persons who may be deemed our “affiliates,” as that term is defined under the Securities Act, would be entitled to sell within any three month period a number of shares that does not exceed the greater of 1% of the then outstanding shares (approximately 174,602 shares if the currently outstanding warrants and options are not exercised, or 277,407 shares if all outstanding options and warrants are exercised) or the average weekly trading volume of shares during the four calendar weeks preceding such sale. Sales under Rule 144 are subject to certain manner-of-sale provisions, notice requirements and the availability of current public information about the company. A person who has not been our affiliate at any time during the three months preceding a sale, and who has beneficially owned his shares for at least two years, would be entitled under Rule 144(k) to sell such shares without regard to any volume limitations under Rule 144. Subject to certain volume limitations and other conditions, all of the currently outstanding unregistered shares are eligible for public resale under Rule 144. The availability of Rule 144 to our holders of restricted securities is, however, conditioned on various factors, including the availability of certain public information concerning the Company.

Form S-8 Registration of Options. We have registered on Form S-8 all of the 1,000,000 shares of our common stock that are eligible for sale under options granted under our 2001 Stock Option Plan. In addition, we have also registered on Form S-8 all 3,000,000 shares of common stock that have been reserved for issuance under our 2005 Stock Incentive Plan, which would permit the resale of such shares in the public marketplace.

Transfer Agent

Our transfer agent currently is The Nevada Agency and Trust Company, 50 West Liberty Street, Suite 880, Reno, Nevada 89501.

INTERESTS OF NAMED EXPERTS AND COUNSEL

No expert or counsel was hired on a contingent basis that will receive a direct or indirect interest in our business that is valued at greater than $50,000.

The financial statements for the years ended December 31, 2005 and 2004 included in this prospectus have been audited by Stonefield Josephson, Inc. to the extent and for the periods indicated in their report thereon. Such financial statements have been included in this prospectus and registration statement in reliance upon the report of Stonefield Josephson, Inc. and upon the authority of such firm as experts in auditing and accounting.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Our Certificate of Incorporation provides that, to the fullest extent permitted by Section 145 of the Delaware General Corporation Law, we have the power to indemnify, and our By-laws state that we shall indemnify and hold harmless, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in our right) by reason of the fact that he is or was a director, officer, employee or agent of this corporation or is or was serving at our request as a director, officer, employee or agent of another corporation or enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to our best interests, and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. Our By-laws also provide that expenses incurred by an officer or director in defending a suit shall be paid by us in advance of such proceeding's final disposition upon receipt of an undertaking by or on behalf of the director or officer to repay such amount if it shall ultimately be determined that he or she is not entitled to be indemnified by us.

Our Certificate of Incorporation also provides that no director shall be personally liable to us or to our stockholders for monetary damages for breach of his fiduciary duty as a director. Delaware law does not permit the elimination of liability (i) for any breach of the director's duty of loyalty to us or our stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) in respect of certain unlawful dividend payments or stock redemptions or repurchases or (iv) for any transaction from which the director derives an improper personal benefit. The effect of this provision in the Certificate of Incorporation is to eliminate the rights of this corporation and its stockholders (through stockholders' derivative suits on behalf of this corporation) to recover monetary damages against a director for breach of fiduciary duty as a director thereof (including breaches resulting from negligent or grossly negligent behavior) except in the situations described in clauses (i)-(iv), inclusive, above.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the small business issuer pursuant to the foregoing provisions, or otherwise, the small business issuer has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable.

LEGAL MATTERS

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, will provide us with an opinion as to the legal matters in connection with the securities we are offering.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the Securities and Exchange Commission a registration statement on Form SB-2 under the Securities Act for the common stock offered under this prospectus. We are subject to the informational requirements of the Exchange Act, and file annual reports, quarterly reports, special reports, proxy statements and other information with the Commission. These reports, proxy statements and other information filed by Arbios Systems, Inc. can be inspected and copied at the public reference facilities of the Commission at Station Place, 100 F Street, N.E., Washington, D.C. 20549. Copies of these materials can be obtained from the Public Reference Section of the Commission at Station Place, 100 F Street, N.E., Washington, D.C. 20549, at prescribed rates. The Commission also maintains a Web site that contains reports, proxy statements, information statements and other information concerning Arbios Systems, Inc. at the site located at *http://www.sec.gov*. This prospectus does not contain all the information in the registration statement and its exhibits, which we have filed with the Commission under the Securities Act and to which reference is made.

INDEX TO FINANCIAL STATEMENTS

AUDITED

FINANCIAL

STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors
Arbios Systems, Inc.
Los Angeles, California

We have audited the accompanying balance sheets of Arbios Systems, Inc. as of December 31, 2005 and 2004 and the related statements of operations, stockholders' equity and cash flows for the years then ended, and from August 23, 2000 (inception) to December 31, 2005. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Arbios Systems, Inc. as of December 31, 2005 and 2004 and the results of its operations and cash flows for the years ended December 31, 2005 and 2004, and from August 23, 2000 (inception) to December 31, 2005, in conformity with accounting principles generally accepted in the United States of America.

Certified Public Accountants

Los Angeles, California
March 2, 2006

ARBIOS SYSTEMS, INC.
(A development stage company)
BALANCE SHEETS
December 31, 2005 and 2004

	December 31,	
ASSETS	2005	2004
Current assets		
Cash and cash equivalents	$ 2,379,738	$ 1,501,905
Short term investments	$ 1,996,000	
Prepaid expenses	195,841	97,653
Total current assets	$ 4,571,579	$ 1,599,558
Property and equipment, net	101,629	107,789
Patent rights, net of accumulated amortization of $93,418 for 2005 & $105,457 for 2004	173,249	294,543
Other assets	55,773	33,164
Total assets	$ 4,902,230	$ 2,035,054
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 160,649	$ 92,304
Accrued expenses	152,362	121,460
Contract commitment		250,000
Current portion of capitalized lease obligation		5,341
Total current liabilities	313,011	469,105
Stockholders' equity		
Preferred stock, $.001 par value; 5,000,000 shares authorized: none issued and outstanding		
Common stock, $.001 par value; 60,000,000 and 25,000,000 shares authorized as of 2005 and 2004; 16,232,909 and 13,216,097 shares issued and outstanding in 2005 and 2004, respectively	16,233	13,216
Additional paid-in capital	13,352,217	6,508,061
Deficit accumulated during the development stage	(8,779,231)	(4,955,328)
Total stockholders' equity	4,589,219	1,565,949
Total liabilities and stockholders' equity	$ 4,902,230	$ 2,035,054

The accompanying notes are an integral part of these financial statements.

ARBIOS SYSTEMS, INC.
(A development stage company)
STATEMENTS OF OPERATIONS

	For the years ended December 31, 2005	2004	Inception, Aug. 23, 2000 to Dec. 31, 2005
Revenues	$ -	$ 72,030	$ 320,966
Operating expenses:			
General and administrative	2,394,546	1,988,763	5,006,915
Research and development	1,554,509	1,426,379	3,990,562
Total operating expenses	3,949,055	3,415,142	8,997,477
Loss before other income (expense)	(3,949,055)	(3,343,112)	(8,676,511)
Other income (expense):			
Interest income	125,286	16,132	141,418
Interest expense	(134)	(847)	(244,138)
Total other income (expense)	125,152	15,285	(102,720)
Net loss	$ (3,823,903)	$ (3,327,827)	$ (8,779,231)
Net earnings per share:			
Basic and diluted	$ (0.24)	$ (0.25)	
Weighted-average shares:			
Basic and diluted	16,137,676	13,199,325	

The accompanying notes are an integral part of these financial statements.

ARBIOS SYSTEMS, INC.
(A development stage company)
STATEMENTS OF CASH FLOWS

	For the years ended December 31,		Inception to December 31,
	2005	2004	2005
Cash flows from operating activities:			
Net loss	$ (3,823,903)	$ (3,327,827)	$ (8,779,231)
Adjustments to reconcile net loss to net cash used in operating activities:			
Amortization of debt discount			244,795
Depreciation and amortization	59,249	48,191	199,777
Patent rights impairment	91,694		91,694
Issuance of common stock and warrants for compensation	557,079	1,045,552	1,613,131
Interest earned on discounted short term investments	(8,652)		(8,652)
Settlement of accrued expenses			54,401
Deferred compensation costs			319,553
Changes in operating assets and liabilities:			
Prepaid expenses	(98,188)	58,333	(195,843)
Other assets	(22,609)	(25,730)	(55,773)
Accounts payable and accrued expenses	34,552	36,727	219,509
Other liabilities	64,695	(5,556)	64,695
Contract obligation	(250,000)	250,000	-
Net cash used in operating activities	(3,396,083)	(1,920,310)	(6,231,944)
Cash flows used in investing activities:			
Additions of property and equipment	(23,489)	(80,745)	(141,349)
Purchase of short term investments	(8,977,714)		(8,977,714)
Maturities of short term investments	6,990,366		6,990,366
Net cash used in investing activities	(2,010,837)	(80,745)	(2,128,697)
Cash flows from financing activities:			
Proceeds from issuance of convertible debt			400,000
Proceeds from common stock option exercise	62,500	2,700	65,200
Proceeds from issuance of common stock, net of costs	6,227,594		10,058,262
Proceeds from issuance of preferred stock, net of costs			238,732
Payments on capital lease obligation, net	(5,341)	(6,826)	(21,815)
Net cash provided by (used in) financing activities	6,284,753	(4,126)	10,740,379
Net increase (decrease) in cash	877,833	(2,005,181)	2,379,738
Cash:			
At beginning of period	1,501,905	3,507,086	
At end of period	$ 2,379,738	$ 1,501,905	$ 2,379,738

Supplemental disclosures of non-cash financing activity		
Issuance of securities for obligation related to finder's fees	$ 47,500	$ 47,500

The accompanying notes are an integral part of these financial statements.

ARBIOS SYSTEMS, INC.
(A Development Stage Company)
STATEMENT OF STOCKHOLDERS' EQUITY
PERIOD FROM AUGUST 23, 2000 (INCEPTION) TO DECEMBER 31, 2005

	Preferred Stock		Common Stock		Additional Paid-In	Deferred	Deficit Accumulated During the Development	
	Shares	Amount	Shares	Amount	Capital	Costs	Stage	Total
Balance, August 23, 2000 (inception) restated for effect of reverse merger with Historical Autographs U.S.A. Inc.			-	$ -	$ -			$ -
Stock issuance in exchange for cash			5,000,000	50	4,950			5,000
Net loss							(9,454)	(9,454)
Balance, December 31, 2000, as restated	-	-	5,000,000	50	4,950	-	(9,454)	(4,454)
Issuance of junior preferred stock for cash of $250,000 and in exchange for $400,000 in patent rights, research and development costs, and employee loanout costs less issuance expenses of $11,268, June 29, 2001	681,818	7			958,278	(343,553)		614,732
Issuance of common stock in exchange for patent rights and deferred research and development costs			362,669	4	547,284			547,288
Services receivable						(550,000)		(550,000)

The accompanying notes are an integral part of these financial statements.

ARBIOS SYSTEMS, INC.
(A Development Stage Company)
STATEMENT OF STOCKHOLDERS' EQUITY
PERIOD FROM AUGUST 23, 2000 (INCEPTION) TO DECEMBER 31, 2005

	Preferred Stock		Common Stock		Additional		Deficit Accumulated	
	Shares	Amount	Shares	Amount	Paid-In Capital	Deferred Costs	During the Development Stage	Total
Deferred employee loan-out costs receivable earned						82,888		82,888
Net loss							(237,574)	(237,574)
Balance, December 31, 2001	681,818	7	5,362,669	54	1,510,512	(810,665)	(247,028)	452,880
Amendment of December 31, 2001 agreement for the issuance of common stock agreement in exchange for research and development services					(495,599)	550,000		54,401
Deferred employee loan-out costs receivable earned						171,776		171,776
Issuance of common stock for compensation			70,000	1	10,499			10,500
Issuance of common stock for cash			999,111	9	149,857			149,866
Net loss							(494,780)	(494,780)
Balance, December 31, 2002	681,818	7	6,431,780	64	1,175,269	(88,889)	(741,808)	344,643

The accompanying notes are an integral part of these financial statements.

ARBIOS SYSTEMS, INC.
(A Development Stage Company)
STATEMENT OF STOCKHOLDERS' EQUITY
PERIOD FROM AUGUST 23, 2000 (INCEPTION) TO DECEMBER 31, 2005

	Preferred Stock		Common Stock		Additional		Deficit Accumulated During the	
	Shares	Amount	Shares	Amount	Paid-In Capital	Deferred Costs	Development Stage	Total
Issuance of common stock for cash less issuance expense of $2,956			417,000	417	246,827			247,244
Issuance of common stock in private placement for cash less issuance expense of $519,230			4,000,000	4,000	3,476,770			3,480,770
Issuance of common stock for convertible debenture less issuance expense of $49,500			400,000	400	350,100			350,500
Shares issued in connection with acquisition of Historical Autographs U.S.A., Inc. on October 30, 2003			1,220,000	8,263	(8,263)			-
Value of warrants and beneficial conversion feature of bridge loan					244,795			244,795
Deferred employee loan-out costs receivable earned						88,889		88,889

Preferred Stock converted to Common Stock	(681,818)	(7)	681,818	7				
Net loss							(885,693)	(885,693)
Balance, December 31, 2003	-	-	13,150,598	13,151	5,485,498	-	(1,627,501)	3,871,148

The accompanying notes are an integral part of these financial statements.

ARBIOS SYSTEMS, INC.
(A Development Stage Company)
STATEMENT OF STOCKHOLDERS' EQUITY
PERIOD FROM AUGUST 23, 2000 (INCEPTION) TO DECEMBER 31, 2005

	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Deferred Costs	Deficit Accumulated During the Development Stage	Total
Issuance of common stock options and warrants for compensation					972,430			972,430
Exercise of common stock options			18,000	18	2,682			2,700
Issuance of securities for payable			47,499	47	47,451			47,498
Net loss							(3,327,827)	(3,327,827)
Balance, December 31, 2004	-	-	13,216,097	13,216	6,508,061	-	(4,955,328)	1,565,949
Issuance of common stock in private placement for cash less issuance expense of $384,312			2,991,812	2,992	6,224,601&#16			