SPHERIX INC
Form 10-K
March 30, 2011

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark one)

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2010

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission file number 0-5576

SPHERIX INCORPORATED

(Exact name of Registrant as specified in its Charter)

Delaware	**52-0849320**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

6430 Rockledge Drive, Suite 503, Bethesda, Maryland 20817

(Address of principal executive offices)

Registrant s telephone number, including area code: **301-897-2540**

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

Title of each class	**Name of each exchange on which registered**
Common Stock ($.005 par value per share)	NASDAQ Capital Market

Securities registered pursuant to Section 12(g) of the Act: **None.**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No x

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes o No o

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

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company (as defined in Rule 12b-2 of the Exchange Act).

Large Accelerated Filer o	Accelerated Filer o
Non-accelerated Filer o	Smaller Reporting Company x

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant s most recently completed second fiscal quarter (for purposes of this determination, only our Directors and Executive Officers have been deemed affiliates): Common Stock (Par Value $.005) $19,692,323

There were 25,624,872 shares of the Registrant s Common Stock outstanding as of March 16, 2011.

PART I

Certain statements contained in this Form 10-K, including without limitation, statements containing the words believes, estimates, expects and words of similar import, constitute forward looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Such words and expressions are intended to identify such forward looking statements, but are not intended to constitute the exclusive means of identifying such statements. Such forward looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward looking statements. Given these uncertainties, prospective investors are cautioned not to place undue reliance on such forward looking statements. The Company disclaims any obligation to update any such factors or to publicly announce the results of any revisions to any of the forward looking statements contained herein to reflect any events or developments.

Item 1. BUSINESS

General

Spherix Incorporated (the Company or Spherix), a Delaware corporation, was founded in 1967. The Company s principal segments are Biospherics, our biotechnology research and development business, and Health Sciences, a technical and regulatory consulting business.

The Company has created two wholly-owned subsidiaries, Biospherics Incorporated and Spherix Consulting, Inc., for its two operating segments. The Company s Health Sciences contracts are now in the name of Spherix Consulting, Inc. and the Company s patents and other assets and operations have been transferred into the name of Biospherics Incorporated. The subsidiaries began operations on January 1, 2009. Spherix provides management, strategic guidance, business development, marketing and other services to its subsidiaries.

The principal executive offices of the Company are located at 6430 Rockledge Drive, Suite 503, Bethesda, Maryland 20817, and its telephone number is (301) 897-2540.

The Company s Common Stock trades on the NASDAQ Capital Market system under the symbol SPEX.

Available Information

Our principal Internet address is www.spherix.com. We make available free of charge on www.spherix.com our annual, quarterly and current reports, and amendments to those reports, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission (SEC).

Biospherics

Biospherics is dedicated to development of pharmaceuticals. The Company has experience in the design, conduct and execution of preclinical and clinical trials relevant to the development of a pharmaceutical. D-Tagatose, a naturally occurring sugar, is a low-calorie, full-bulk sweetener previously approved by the Food and Drug Administration (FDA) as a GRAS (Generally Recognized As Safe) food ingredient. During human safety studies supporting food use, the Company discovered and patented a number of health and medical uses for D-tagatose. Until June 2010, Biospherics activities were limited to developing D-tagatose as a novel, first-in-class treatment for Type 2 diabetes. In June 2010, the Company announced that it will actively seek a pharma partner to continue the diabetes development and that it will also explore D-tagatose as a potential treatment for high triglycerides, a risk factor for atherosclerosis, myocardial infarction and stroke.

Diabetes

In spite of favorable Phase 3 and Phase 2 results, the cost burden of developing drugs specifically for diabetes has increased significantly within the last few years under evolving and more stringent FDA guidelines. A

company-commissioned analysis estimates it would take several additional years of clinical trials and could cost as much as several hundred million dollars to achieve a New Drug Application (NDA) filing for D-tagatose as a treatment for diabetes under current FDA guidelines. European regulatory requirements are significantly lower and we believe Europe represents a better opportunity for development, especially given the longer exclusivity period granted to a new chemical entity. We have determined that continued development of D-tagatose as a treatment for Type 2 diabetes requires the involvement of a pharma partner with the resources needed to fund the rest of the development and to bring it to market. We are hopeful that the recently announced Phase 3 results will further D-tagatose as an attractive candidate for further development by a pharma company. Particularly for development outside the United States where the regulatory barriers, and therefore costs, to market entry are lower. Accordingly, we are actively seeking a strategic relationship with a pharma company for the continued development of D-tagatose as a treatment for Type 2 diabetes.

Triglycerides

Secondary endpoints of our diabetes trials include triglyceride measurements. High triglyceride levels are sometimes a symptom of conditions associated with heart disease such as obesity and metabolic syndrome, which is a condition associated with elevated glucose levels as well as excess fat around the waist, high blood pressure, high triglycerides and low HDL cholesterol. Although our Phase 2 and Phase 3 trials were not primarily designed to measure the impact of D-tagatose on high triglycerides, we are encouraged enough to continue with pursuit of this project. Our Phase 2 data showed that by the end of the six-month trial, the 7.5g dose reduced triglycerides by approximately 23% versus the 2.5g dose. Further studies with a larger sample size will be needed to establish statistically significant results.

The program to investigate D-tagatose as a pharmaceutical agent to lower serum triglycerides has begun. We have engaged a leading global contract research organization to investigate the role of D-tagatose in lowering triglycerides. We may conduct cell culture, animal and human studies in order to fully explore the mechanism of action on lipid metabolism, including triglycerides as well as LDL and HDL cholesterol. The commercial intent of the triglyceride program is to develop a formulation, dose and dosing regimen appropriate for the lipid market segment and uniquely different from the diabetes market. Thus, our intent is to develop a completely new, second brand for triglycerides, separate from the diabetes brand.

Manufacturing

We do not own or operate our own manufacturing facilities. We first acquired D-tagatose for use in the trials from Arla Foods Ingredients amba (Arla), our previous food and beverage use licensee. However, Arla has discontinued its manufacturing of D-tagatose. In 2009, our Biospherics subsidiary signed a Supply Agreement with Inalco, S.p.A. We have used both Inalco and Arla D-tagatose in the Phase 2 and 3 trials. Inalco has recently informed us that it has discontinued its manufacturing of D-tagatose. Spherix will receive a final shipment of 8.5 metric tons of D-tagatose that Inalco has in stock by April 20, 2011. Inalco and Spherix have agreed that receipt of this shipment will fulfill the supply requirements; both parties have released each other from any other obligation. Upon receipt of this shipment of D-tagatose, we anticipate having sufficient supply to conduct our triglycerides studies through Phase 2 and we have commenced efforts to secure a new, long-term supplier of D-tagatose.

In June 2009, we terminated the 1996 license agreement pursuant to which we granted Arla Foods Ingredients amba (Arla) the food and beverage rights to D-tagatose. Per the termination agreement, we and Arla have fully released one another from all obligations.

Biospherics revenue from miscellaneous royalties accounted for 1% of our total revenue from continuing operations in 2010 and 2009.

Health Sciences

The Health Sciences business provides technical and regulatory consulting services to biotechnology and pharmaceutical companies, as well as providing technical support for our R&D activities.

During 2010 and 2009, Health Sciences provided services to 23 and 12 companies, respectively. We generally provide our services on either a fixed-price basis or a time and expenses basis, charging hourly rates for each staff member involved in a project, based on his or her skills and experience. Our engagement agreements typically provide for monthly billing and payment of our invoices within thirty days of receipt.

The projects range from safety analyses of food ingredients to safety analyses of pharmaceutical manufacturing and dispensing equipment. Many clients are large, well-known companies with a number of successful products on the market. The proliferation of new products in the food and pharmaceutical areas creates a growing need for such regulatory services.

Revenues are primarily derived from services provided in response to client requests or events that occur without notice, and engagements, generally billed as services are performed, are terminable or subject to postponement or delay at any time by clients. Revenues and operating margins for any particular quarter are generally affected by staffing mix, resource requirements, and timing and size of engagements.

Health Sciences is also monitoring and directing the clinical trials of D-tagatose for Biospherics.

Health Sciences revenue accounted for 99% of our total revenue in 2010 and 2009.

Government Contracts

None.

Industry Segments

See Note 12, Information by Business Segment, of the Notes to the Financial Statements included herein pursuant to Part II, Item 8 of this Form 10-K for industry segment information of the Company, which information is incorporated herein by reference.

Market Concentration

During each of 2010 and 2009, 99% of our revenue was generated from the Health Sciences business. In 2010, revenue from one customer accounted for 10% of revenue. In 2009, five customers accounted for 19%, 16%, 14%, 12% and 11% of revenues. No other single customer accounted for 10 percent or more of consolidated revenue. The loss of any of these customers could have a material adverse effect on us if not replaced.

Patents

The Company s D-tagatose patents are detailed in the following table:

Patent No.	Patent Title	Issue Date	Expiration Date
U.S. 5,447,917	D-Tagatose as Anti-Hyperglycemic Agent (1)	9/5/95	9/5/12
U.S. 5,356,879	D-Tagatose as Anti-Hyperglycemic Agent (1)	10/18/94	2/14/12

(1) Patents pertaining to use of D-tagatose as treatment for Diabetes

The following patents are pending:

Title	Filing Date	Status
D-Tagatose-Based Compositions And Methods For Preventing And Treating Atherosclerosis, Metabolic Syndrome And Symptoms Thereof	November 4, 2009	Pending*
D-Tagatose And Biguanide Compositions And Methods	April 1, 2010	Pending

*Licensed from the University of Kentucky Research Foundation

If approved for use as a drug by the FDA as a treatment for Type 2 diabetes, we believe that the use of D-tagatose as an anti-diabetes treatment may be eligible for a five-year New Chemical Entity (NCE) exclusivity period following FDA approval. Similar legislation in Europe could provide seven or more years of market exclusivity in the European Union, if approved by the European Medicines Agency (EMA).

In addition to our patent position, we rely on the common law protection of such information as trade secrets and on confidentiality agreements to protect the value of these assets.

Trademarks

We have trademarked each of Spherix and Biospherics.

Sales Backlog

Our backlog as of December 31, 2010 and 2009 from the Health Sciences business was approximately $308,000 and $770,000, respectively. We bill for our consulting services primarily on a time and expense basis and these amounts represent estimated contract values. Further, our consulting contracts are generally terminable or subject to postponement or delay at any time by clients. As a result, backlog at any particular time is not a reliable indicator of revenues for any future periods.

Competition

Biospherics

Competitors of Biospherics are numerous and include, among others, major pharmaceutical, chemical, consumer, and biotechnology companies; specialized firms; universities and other research institutions. Our competitors may succeed in developing technologies and products that are more effective than any that are being developed by us, and that could render our technology and potential products obsolete and noncompetitive. Many of these competitors have substantially greater financial and technical resources and production and marketing capabilities. If D-tagatose should be approved as a treatment for Type 2 diabetes, the major competitor as a monotherapy will be metformin, which generated almost 50 million prescriptions in the U.S. market in 2009. In the triglyceride market, the main categories of pharmaceutical agents include: fenofibrates (Tricor®, gemfibrozil, generics) with global sales of $2.2 billion; niacin-based agents (with sales of $1 billion globally) and the Omega-3 oil products (Lovasa®/GSK) with prescription sales approaching $1 billion globally.

Health Sciences

Competitors of Health Sciences are numerous, including some that are much larger companies with more resources. The segment s success in winning and retaining clients is heavily dependent on the efforts and reputation of its CEO. We believe the barriers to entry in particular areas of our consulting expertise are low.

Research and Development

Biospherics expenditures for research and development were approximately $4.8 million and $6.8 million in 2010 and 2009, respectively. These expenditures were incurred in the ongoing efforts to commercialize D-tagatose.

Governmental Regulation

Our business activities are subject to a variety of Federal and state compliance, licensing, and certification requirements. Products such as D-tagatose may not be commercially marketed as a drug without prior approval from the FDA and comparable agencies in foreign countries. In the United States, the process for obtaining FDA approval typically includes pre-clinical studies, the filing of an Investigational New Drug application, or IND, human clinical trials and filing and approval of a New Drug Application, or NDA. The FDA may, at any time, impose a clinical hold on ongoing clinical trials. If the FDA imposes a clinical hold, clinical trials cannot commence or recommence without FDA authorization and then only under terms authorized by the FDA.

The results of the trials and other information are then submitted to the FDA in the form of an NDA for review and potential approval to commence commercial sales. In responding to an NDA, the FDA may grant marketing approval, request additional information in a complete response letter, or deny the approval if it determines that the NDA does not provide an adequate basis for approval. A complete response letter generally contains a statement of specific conditions that must be met in order to secure final approval of the NDA and may require additional testing. If and when those conditions have been met to the FDA s satisfaction, the FDA will typically issue an approval letter, which authorizes commercial marketing of the product with specific prescribing information for specific indications. Any approval required from the FDA might not be obtained on a timely basis, if at all.

Among the conditions for NDA approval is the requirement that the manufacturing operations conform on an ongoing basis with current Good Manufacturing Practices, or cGMP. A successful inspection of the manufacturing facility by the FDA is a prerequisite for final approval. Following approval of the NDA, the third-party manufacturer(s) remain subject to periodic inspections by the FDA. We also face similar inspections coordinated by the EMA by inspectors from particular European Union member countries that conduct inspections on behalf of the European Union and from other foreign regulatory authorities. Any determination by the FDA or other regulatory authorities of manufacturing or other deficiencies could materially adversely affect our business.

In general, regulatory requirements and approval processes in European Union (EU) countries are similar in principle to those in the United States and can be at least as costly and uncertain. The European Union has established a unified centralized filing and approval system administered by the Committee for Medicinal Products for Human Use designed to reduce the administrative burden of processing applications for pharmaceutical products derived from new technologies. In addition to obtaining regulatory approval of products, it is generally necessary to obtain regulatory approval of the facility in which the product will be manufactured.

However, U.S. and EU requirements differ dramatically for antidiabetic medications. In the U.S. the FDA guidance requires 2/3 more subjects to be studied than in the EU, and also markedly increases the duration of the studies both for efficacy and safety. In addition, the FDA requirements for evaluating the cardiovascular risks associated with type 2 anti-diabetic medications markedly increases the study populations while also studying patients with relatively advanced diabetes, some degree of renal impairment and at higher risk of cardiovascular events.

Requirements for the development of drugs to lower triglycerides have not changed and are similar in both the U.S. and EU. The development program is considerably simpler than with type 2 antidiabetic medications, with a smaller number of subjects to be studied and clinical studies of substantially shorter duration to demonstrate efficacy and safety of the drugs.

We are required to comply with the Sarbanes-Oxley Act of 2002, including the provisions of Section 404 on the assessment of internal controls as modified for non-accelerated filers. Starting with its year ended 2007, we performed an annual evaluation of the effectiveness of our internal control over financial reporting and reports on management s assessment of the adequacy of those controls in our annual report on Form 10-K.

The increase in accounting related regulations over the years, particularly those governing public companies, has had the effect of increasing our cost for external accounting services, from 0.3% of revenue in 1997 ($40,000) to 10% in 2010 ($196,000).

Environment

Compliance with current federal, state and local provisions regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, has not had, and in the opinion of management will not have, a material effect on our financial position, results of operations, capital expenditures, cash flows or competitive position.

Employees

We employ 9 individuals, all on a full-time basis.

Item 1A. Risk Factors

An investment in our securities involves a high degree of risk and should be considered only by those persons who are able to afford a loss of their entire investment. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied by any forward-looking statement. In particular, you should consider the numerous risks outlined below. Those risk factors are not exhaustive.

RISKS ASSOCIATED WITH PRODUCT DEVELOPMENT

WE MAY NOT BE ABLE TO FIND A STRATEGIC PARTNER FOR OUR DIABETES DRUG CANDIDATE. With the conclusion of the Phase 3 trial, we have scaled back our development of D-tagatose as a treatment for Type 2 diabetes and are actively seeking a strategic partner to continue this development. We may not locate such a partner or may not negotiate an appropriate strategic relationship agreement. If we are not successful, we will not obtain any benefit from the substantial investment we have made in these efforts over the past several years.

OUR POTENTIAL TRIGLYCERIDES DRUG IS AT A VERY EARLY STAGE OF DEVELOPMENT. We will be starting at the beginning in our development of a triglycerides drug. We may begin with animal studies and then progress to human studies and trials. We expect that it could take three or more years to complete the studies/trials necessary to attract a pharma partner to complete the development and an additional 2-4 years to complete all necessary studies for an NDA filing. There can be no assurance that any of these studies/trials will be successful or that we will develop the necessary proof of concept required to attract a pharma partner.

IF WE ARE UNABLE TO COMPLETE OUR TRIGLYCERIDES CLINICAL TRIAL PROGRAMS SUCCESSFULLY, OR IF SUCH CLINICAL TRIALS TAKE LONGER TO COMPLETE THAN WE PROJECT, OUR ABILITY TO EXECUTE OUR CURRENT BUSINESS STRATEGY WILL BE ADVERSELY AFFECTED. Whether or not and how quickly we complete triglycerides clinical trials is dependent in part upon the rate at which we are able to engage clinical trial sites and, thereafter, the rate of enrollment of patients, and the rate we collect, clean, lock and analyze the clinical trial database. Patient enrollment is a function of many factors, including the size of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the study, the existence of competitive clinical trials, and whether existing or new drugs are approved for the indication we are studying. Certain clinical trials are designed to continue until a pre-determined number of events have occurred in the patients enrolled. Trials such as this are subject to delays stemming from patient withdrawal and from lower than expected event rates. They may also incur additional costs if enrollment is increased in order to achieve the desired number of events. If we experience delays in identifying and contracting with sites and/or in patient enrollment in our clinical trial programs, we may incur additional costs and delays in our development programs, and may not be able to complete our clinical trials in a cost-effective or timely manner. In addition, conducting multi-national studies adds another level of complexity and risk. We are subject to events affecting countries outside the United States. Negative or inconclusive results from the clinical trials we conduct or unanticipated adverse medical events could cause us to have to repeat or terminate the clinical trials. We may also opt to change the delivery method, formulation or dosage, which could affect efficacy results for the drug candidate. Accordingly, we may not be able to complete the clinical trials within an acceptable time frame, if at all.

Additionally, we have never filed an NDA or similar application for approval in the United States, or in any country, which may result in a delay in, or the rejection of, our filing of an NDA or similar application. During the drug development process, regulatory agencies will typically ask questions of drug sponsors. While we endeavor to answer all such questions in a timely fashion, or in the NDA filing, some questions may remain unanswered by the time we file our NDA. Unless the FDA opts not to pursue answers to these questions, submission of an NDA may be delayed or rejected.

PRE-CLINICAL TESTING AND CLINICAL DEVELOPMENT ARE LONG, EXPENSIVE AND UNCERTAIN PROCESSES. IF OUR DRUG CANDIDATES DO NOT RECEIVE THE NECESSARY REGULATORY APPROVALS, WE WILL BE UNABLE TO COMMERCIALIZE OUR DRUG CANDIDATES. We have not received, and may never receive, regulatory approval for the commercial sale of any of our drug candidates. We will need to conduct significant additional research and human testing before we can apply for product approval with the FDA or with regulatory authorities of other countries. Pre-clinical testing and clinical development are long, expensive and uncertain processes. Satisfaction of regulatory requirements typically depends on the nature, complexity and novelty of the product. It requires the expenditure of substantial resources. Data obtained from pre-clinical and clinical tests can be interpreted in different ways, which could delay, limit or prevent regulatory approval. The FDA may pose additional questions or request further clinical substantiation. It may take us many years to complete the testing of our drug candidates and failure can occur at any stage of this process. Negative or inconclusive results or medical events during a clinical trial could cause us to delay or terminate our development efforts.

Furthermore, interim results of preclinical or clinical studies do not necessarily predict their final results, and acceptable results in early studies might not be obtained in later studies.

Clinical trials have a high risk of failure. A number of companies in the pharmaceutical industry, including biotechnology companies, have suffered significant setbacks in advanced clinical trials, even after achieving what appeared to be promising results in earlier trials. If we experience delays in the testing or approval process or if we need to perform more or larger clinical trials than originally planned, our financial results and the commercial prospects for our drug candidates may be materially impaired. In addition, we have limited experience in conducting and managing the clinical trials necessary to obtain regulatory approval in the United States and abroad. Accordingly, we may encounter unforeseen problems and delays in the approval process. Although we may engage a clinical research organization with experience in conducting regulatory trials, errors in the conduct, monitoring and/or auditing could potentially invalidate the results.

OUR PATENT PROTECTION MAY NOT BE SUFFICIENT TO PROTECT US. Our current use patent for D-tagatose as a treatment for Type 2 diabetes expires in 2012. At present we only have rights for patents pending for triglycerides treatment. There can be no assurance these patents will be issued.

WE DO NOT CURRENTLY HAVE THE RESOURCES TO BECOME A FULL SCALE BIOTECHNOLOGY COMPANY AND WE MAY NOT BE ABLE TO ATTRACT A NECESSARY BUYER/LICENSEE/PARTNER/STRATEGIC PARTNER BEFORE WE EXPEND ALL OF OUR FUNDS. We intend to continue to develop D-tagatose as a viable triglycerides treatment and to continuously seek a sale, license, or partner. Our hope and expectation is that as we proceed with the development, incremental successes may allow us to negotiate a favorable transaction. There can be no assurance, however, that we will have such incremental successes, or even if we achieve them, that we will attract a buyer, licensee or partner. We have limited resources. We will need to raise additional funds in 2011 to continue operations and will likely require additional capital raises thereafter to fully pursue the triglycerides opportunity and we may not be able to do so in a timely fashion.

REGULATORY AUTHORITIES MAY NOT APPROVE OUR PRODUCT EVEN IF IT MEETS SAFETY AND EFFICACY ENDPOINTS IN CLINICAL TRIALS. The FDA and foreign regulatory agencies can delay, limit or deny marketing approval for many reasons, including:

- a product candidate may not be considered safe or effective;
- the manufacturing processes or facilities we have selected may not meet the applicable requirements; and

- changes in approval policies or adoption of new regulations may require additional work on our part.

Any delay in, or failure to receive or maintain, approval for D-tagatose as a treatment for triglycerides could prevent us from ever generating meaningful revenues.

D-tagatose may not be approved even if it achieves endpoints in clinical trials. Regulatory agencies, including the FDA, or their advisors may disagree with our trial design and our interpretations of data from

preclinical studies and clinical trials. Regulatory agencies may change requirements for approval even after a clinical trial design has been approved. Regulatory agencies may also approve a product candidate for fewer or more limited indications than requested, or may grant approval subject to the performance of post-marketing studies. In addition, regulatory agencies may not approve the labeling claims that are necessary or desirable for the successful commercialization of D-tagatose.

OUR FINANCIAL RESOURCES ARE LIMITED AND WE WILL NEED TO RAISE ADDITIONAL CAPITAL IN THE FUTURE TO CONTINUE OUR BUSINESS. WE WILL NOT BE ABLE TO CONTINUE AS A GOING CONCERN IF WE ARE NOT ABLE TO OBTAIN ADDITIONAL FINANCING. The Company expects to expend all of its cash within the next 2 years. Our future capital requirements will depend on many factors, including the progress of the clinical trials and commercialization of D-tagatose, as well as general and administrative costs. We will need to raise additional funds in 2011 to continue operations and will likely require additional capital raises thereafter to fully pursue the triglycerides opportunity. We cannot ensure that additional funding will be available or, if it is available, that it can be obtained on terms and conditions we will deem acceptable. Any additional funding derived from the sale of equity securities is likely to result in significant dilution to our existing stockholders. These matters involve risks and uncertainties that may prevent us from raising additional capital or may cause the terms upon which we raise additional capital, if additional capital is available, to be less favorable to us than would otherwise be the case. If we reach a point where we are unable to raise needed additional funds to continue as a going concern, we will be forced to cease our development activities and dissolve the Company. In such an event, we will need to satisfy various severances, lease termination and other dissolution-related obligations.

UNSTABLE MARKET CONDITIONS MAY HAVE SERIOUS ADVERSE CONSEQUENCES ON OUR BUSINESS. The recent economic downturn and market instability have made the business climate more volatile and more costly. Our general business strategy may be adversely affected by unpredictable and unstable market conditions, including:

- one or more of our current service providers, manufacturers and other partners may encounter difficulties during challenging economic times, which would directly affect our ability to attain our goals on schedule and on budget;
- demand for our consulting services may decrease resulting in a decrease in revenue;
- our ability to collect on trade receivables may be negatively impacted by slow payments or bad debt;
- our efforts to raise additional capital may be negatively impacted;
- additional funding may not be available or, if it is available, may not be on terms and conditions we deem acceptable;
- any additional funding derived from the sale of equity securities is likely to result in significant dilution to our existing stockholders; and
- failure to secure the necessary financing in a timely manner and on favorable terms could have a material adverse effect on our business strategy, financial performance, and stock price and could require us to delay or abandon the clinical development plans.

IF CLINICAL TRIALS OF D-TAGATOSE ARE PROLONGED, DELAYED OR SUSPENDED, IT MAY TAKE SIGNIFICANTLY LONGER AND COST SUBSTANTIALLY MORE TO OBTAIN APPROVAL FOR OUR DRUG CANDIDATE AND ACHIEVE PROFITABILITY, IF AT ALL. Each delay makes it more likely that we will need additional financing to complete our clinical trials. We cannot predict whether we will encounter additional problems that will cause us or regulatory authorities to delay or suspend the clinical trial, or delay the analysis of data from the trials. Any of the following could delay the clinical development of our drug candidates:

- ongoing discussions with the FDA regarding the scope or design of our trial;

- delays in receiving, or the inability to obtain, required approvals from reviewing entities at clinical sites selected for participation in our trial;

- a lower than anticipated retention rate of patients in the trial;

- the need to repeat the trial or conduct another trial as a result of inconclusive or negative results or unforeseen complications in testing;

- inadequate supply or deficient quality of materials necessary to conduct our trial;
- serious and unexpected drug-related side effects experienced by participants in our clinical trials;
- the placement by the FDA of a clinical hold on a trial; or
- any restrictions on or post-approval commitments with regard to any regulatory approval we ultimately obtain that render the drug candidate not commercially viable.

WE WILL RELY ON THIRD PARTIES TO CONDUCT PORTIONS OF OUR TRIALS, AND THOSE THIRD PARTIES MAY NOT PERFORM SATISFACTORILY. We will rely on third parties to enroll qualified patients, conduct our trials, provide services in connection with such trials, and coordinate and oversee significant aspects of the trials. Our reliance on these third parties for clinical development activities reduces our control over these activities. Accordingly, these third party contractors may not complete activities on schedule, or may not conduct our trials in accordance with regulatory requirements or the trial design. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may be required to replace them or we may be required to provide these services with our own personnel. Although we believe there are a number of third party contractors we could engage to continue these activities, replacing a third party contractor may result in a delay or affect the trial. If this were to occur, our efforts to obtain regulatory approvals for and commercialize our drug candidate may be delayed.

OUR CORPORATE COMPLIANCE EFFORTS CANNOT GUARANTEE THAT WE ARE IN COMPLIANCE WITH ALL POTENTIALLY APPLICABLE REGULATIONS. The development, manufacturing, pricing, sales, and reimbursement of drug products are subject to extensive regulation by federal, state and other authorities within the United States and numerous entities outside of the United States. We are a relatively small company with only 9 employees. We also have significantly fewer employees than many other companies that have a product candidate in clinical development, and we rely heavily on third parties to conduct many important functions. While we believe that our corporate compliance program is sufficient to ensure compliance with applicable regulation, we cannot assure that we are or will be in compliance with all potentially applicable regulations. If we fail to comply with any of these regulations we could be subject to a range of regulatory actions including suspension or termination of clinical trials, the failure to approve our product candidate, restrictions on our products or manufacturing processes, withdrawal of products from the market, significant fines, or other sanctions or litigation.

WE DO NOT HAVE INTERNAL MANUFACTURING CAPABILITIES, AND IF WE FAIL TO DEVELOP AND MAINTAIN SUPPLY RELATIONSHIPS WITH OUTSIDE MANUFACTURERS, WE MAY BE UNABLE TO DEVELOP OR COMMERCIALIZE D-TAGATOSE. Our ability to develop and commercialize D-tagatose will depend in part on our ability to arrange for other parties to manufacture D-tagatose at a competitive cost, in accordance with regulatory requirements and in sufficient quantities for clinical testing and eventual commercialization. If we are unable to enter into or maintain commercial-scale manufacturing agreements on acceptable terms, or if we are unable to successfully bridge material from a manufacturer to the material initially used in the trials, the development and commercialization of D-tagatose could be delayed, which would adversely affect our ability to generate revenues and would increase our expenses.

FAILURE TO OBTAIN REGULATORY APPROVAL IN FOREIGN JURISDICTIONS WOULD PREVENT MARKETING OF D-TAGATOSE. We intend to have D-tagatose marketed both inside and outside of the United States. In order to market D-tagatose in the European Union and many other foreign jurisdictions, we must obtain separate regulatory approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ from that required to obtain FDA approval. The foreign regulatory approval process may include all of the risks associated with obtaining FDA approval. We may not obtain foreign regulatory approvals on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other foreign countries or by the FDA. We and our collaborators may not be able to file for regulatory approvals and may not receive necessary approvals to commercialize our products in any market. The failure to obtain these approvals could materially

adversely affect our business, financial condition and results of operations.

EVEN IF OUR CLINICAL TRIALS ARE SUCCESSFUL, WE MAY NOT HAVE A COMMERCIALLY VIABLE DRUG OR PRODUCT. We have a number of hurdles to overcome to have a commercially viable drug or product even assuming our clinical trials are successful, including:

- We must secure one or more manufacturers for D-tagatose and we must bridge the materials supplied by the current manufacturer(s) to the previously supplied materials to gain FDA approval.

- We must demonstrate that the product will be accepted in the market place. Even if the clinical trial is successful, the market may not accept the drug formulation or dosing, which would be three times a day in powder form for diabetes treatment.

IF PHYSICIANS AND PATIENTS DO NOT ACCEPT D-TAGATOSE, WE MAY NOT BE ABLE TO GENERATE SIGNIFICANT REVENUES FROM PRODUCT SALES. Even if we obtain regulatory approval for D-tagatose, it may not gain market acceptance among physicians, patients and the medical community for a variety of reasons including:

- timing of market introduction of competitive drugs;
- lower demonstrated clinical safety and efficacy compared to other drugs;
- lack of cost-effectiveness;
- lack of availability of reimbursement from managed care plans and other third-party payors;
- inconvenient administration;
- prevalence and severity of adverse side effects;
- drug interactions with other widely prescribed medications;
- potential advantages of alternative treatment methods;
- safety concerns with similar drugs marketed by others;
- the reluctance of the target population to try new therapies and of physicians to prescribe these therapies; and
- ineffective sales, marketing and distribution support.

If D-tagatose fails to achieve market acceptance, we would not be able to generate significant revenue or achieve profitability.

THE BIOTECHNOLOGY BUSINESS HAS A SUBSTANTIAL RISK OF PRODUCT LIABILITY CLAIMS. THE DEFENSE OF ANY PRODUCT LIABILITY CLAIM BROUGHT AGAINST US WILL DIVERT MANAGEMENT TIME AND REQUIRE

SIGNIFICANT EXPENSE. We could be exposed to significant potential product liability risks that are inherent in the development, manufacture, sales and marketing of drugs and related products. Our insurance may not, however, provide adequate coverage against potential liabilities. Furthermore, product liability insurance is becoming increasingly expensive. As a result, we may be unable to maintain current amounts of insurance coverage or obtain additional or sufficient insurance at a reasonable cost to protect against losses that could have a material adverse effect on us. If a claim is brought against us, we might be required to pay legal and other expenses to defend the claim, as well as uncovered damage awards resulting from a claim brought successfully against us. Furthermore, whether or not we are ultimately successful in defending any such claims, we might be required to redirect significant financial and managerial resources to such defense, and adverse publicity is likely to result.

WE HAVE SUSTAINED LOSSES IN THE PAST AND WE WILL SUSTAIN LOSSES IN THE FORESEEABLE FUTURE. We have incurred losses from operations in prior years, including 2010 and 2009. Our net losses for the years ended December 31, 2010 and 2009 were $7.7 million and $9.1 million, respectively. The Company s cumulative deficit was $33.7 million at December 31, 2010. We expect to incur substantial losses for the foreseeable future. We may not return to profitable operations.

WE MAY NOT BE ABLE TO RETAIN OUR KEY EXECUTIVES AND PERSONNEL. As a small company, our success depends on the services of key employees in executive and other positions. The loss of the services of one or more of such employees could have a material adverse effect on us.

WE FACE INTENSE COMPETITION. Our competitors in the biotechnology products business are numerous. Many of our competitors have significantly greater financial, marketing and distribution resources than we do. Our competitors may succeed in developing or marketing biotechnology products that are more effective than ours.

WE FACE EVOLVING REGULATION OF CORPORATE GOVERNANCE AND PUBLIC DISCLOSURE THAT MAY RESULT IN ADDITIONAL EXPENSES AND CONTINUING UNCERTAINTY. Changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002, SEC regulations and NASDAQ Stock Market LLC rules are creating uncertainty for public companies. We are presently evaluating and monitoring developments with respect to new and proposed rules and cannot predict or estimate the amount of the additional costs we may incur or the timing of these costs. For example, compliance with the internal control requirements of Section 404 of the Sarbanes-Oxley Act has to date required the commitment of significant resources to document and test the adequacy of our internal control over financial reporting. While our assessment, testing and evaluation of the design and operating effectiveness of our internal control over financial reporting resulted in our conclusion that, as of December 31, 2010, our internal control over financial reporting was effective, we can provide no assurance as to conclusions of management or by our independent registered public accounting firm with respect to the effectiveness of our internal control over financial reporting in the future. These new or changed laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We are committed to maintaining high standards of corporate governance and public disclosure. As a result, we intend to invest the resources necessary to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new or changed laws, regulations and standards differ from the activities intended by regulatory or governing bodies, due to ambiguities related to practice or otherwise, regulatory authorities may initiate legal proceedings against us, which could be costly and time-consuming, and our reputation and business may be harmed.

RISKS RELATED TO OWNERSHIP OF OUR COMMON STOCK

THE PRICE OF OUR COMMON STOCK HAS BEEN HIGHLY VOLATILE DUE TO SEVERAL FACTORS THAT WILL CONTINUE TO AFFECT THE PRICE OF OUR STOCK. Our common stock has traded as low as $0.25 and as high as $4.15 between January 1, 2009 and December 31, 2010. Some of the factors leading to this volatility include:

- relatively small amounts of our stock trading on any given day;
- fluctuations in our operating results;
- announcements of technological innovations or new products that we or our competitors make;
- developments with respect to patents or proprietary rights; and
- recent economic downturn and market instability.

OUR COMMON STOCK WILL BE DELISTED FROM NASDAQ CAPITAL MARKET SYSTEM IF WE FAIL TO COMPLY WITH CONTINUED LISTING STANDARDS. Our common stock is currently traded on the NASDAQ Capital Market under the symbol SPEX. If we fail to meet any of the continued listing standards of the NASDAQ Capital Market, our common stock could be delisted from the NASDAQ Capital Market. These continued listing standards include specifically enumerated criteria, such as:

- a $1.00 minimum closing bid price;
- shareholders equity of $2.5 million;
- 500,000 shares of publicly-held common stock with a market value of at least $1 million;
- 300 round-lot stockholders; and
- compliance with NASDAQ s corporate governance requirements, as well as additional or more stringent criteria that may be applied in the exercise of NASDAQ s discretionary authority.

On November 24, 2010, NASDAQ notified us that our common stock failed to maintain a minimum bid price of $1.00 over the previous 30 consecutive business days as required by NASDAQ rules. We have an initial period of 180 calendar days, or until May 23, 2011, to regain compliance with the minimum bid price requirement. If we do not regain compliance with the rule by May 23, 2011, and if we are not otherwise entitled to a further compliance period, NASDAQ will provide notice that our common stock will be delisted from the NASDAQ Capital Market. If we receive such a letter, we will have an opportunity to appeal the determination to a NASDAQ Hearings Panel.

Our stockholders have previously approved and authorized our Board of Directors to effect a reverse stock split at any time prior to mid-May, 2011. Our Board of Directors will consider whether and when to implement such a split.

At September 30, 2010, the Company s stockholders equity fell below the $2.5 million limit required for continued listing on the NASDAQ Capital Market. We have regained compliance with this rule as a result of our October 2010 financing but it is uncertain how long we can maintain such compliance.

In the future, if our common stock were to fail to meet any of the continued listing requirements, it could be delisted from the NASDAQ Capital Market. In that case, trading of our common stock most likely will be conducted in the over-the-counter market (OTC) Bulletin Board market, an electronic bulletin board established for unlisted securities. Such delisting could also adversely affect our ability to obtain financing for the continuation of our operations and could result in the loss of confidence by investors, suppliers and employees.

WE COULD FAIL IN FINANCING EFFORTS OR BE DELISTED FROM NASDAQ IF WE FAIL TO RECEIVE SHAREHOLDER APPROVAL WHEN NEEDED. We are required under the NASDAQ rules to obtain shareholder approval for any issuance of additional equity securities that would comprise more than 20% of the total shares of our common stock outstanding before the issuance of such securities sold at a discount to the greater of book or market value in an offering that is not deemed to be a public offering by NASDAQ. Funding of our operations in the future may require issuance of additional equity securities that would comprise more than 20% of the total shares of our common stock outstanding, but we might not be successful in obtaining the required shareholder approval for such an issuance. If we are unable to obtain financing due to shareholder approval difficulties, such failure may have a material adverse effect on our ability to continue operations.

DIVIDENDS ON OUR COMMON STOCK ARE NOT LIKELY. We do not anticipate paying cash dividends on our common stock in the foreseeable future. Investors must look solely to appreciation in the market price of the shares of our common stock to obtain a return on their investment.

BECAUSE OF THE RIGHTS AGREEMENT AND ANTI-TAKEOVER PROVISIONS IN OUR CERTIFICATE OF INCORPORATION AND BYLAWS, A THIRD PARTY MAY BE DISCOURAGED FROM MAKING A TAKEOVER OFFER THAT COULD BE BENEFICIAL TO OUR STOCKHOLDERS. In 2001, we adopted a shareholder rights plan. In December 2010, we extended the term of this plan through December 31, 2012. The effect of this rights plan and of certain provisions of our Certificate of Incorporation, By-Laws, and the anti-takeover provisions of the Delaware General Corporation Law, could delay or prevent a third party from acquiring us or replacing members of our Board of Directors, even if the acquisition or the replacements would be beneficial to our stockholders. These factors could also reduce the price that certain investors might be willing to pay for shares of the common stock and result in the market price being lower than it would be without these provisions.

INSIDERS OWN A SIGNIFICANT PORTION OF OUR COMMON STOCK, WHICH COULD LIMIT OUR STOCKHOLDERS ABILITY TO INFLUENCE THE OUTCOME OF KEY TRANSACTIONS. As of December 31, 2010, our Officers and Directors and their

affiliates owned approximately 12% of the outstanding shares of our common stock. As a result, our Officers and Directors are able to exert considerable influence over the outcome of any matters submitted to a vote of the holders of our common stock, including the election of our Board of Directors. The voting power of these stockholders could prevent or frustrate attempts to effect a transaction that is in the best interests of the other stockholders and could also discourage others from seeking to purchase our common stock, which might depress the price of our common stock.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

The Company s office is located in Bethesda, Maryland, where it leases 5,000 square feet of office space under a lease that expires March 31, 2013. The capacity of the Bethesda facility is adequate for the Company s current needs.

Item 3. LEGAL PROCEEDINGS

On January 14, 2011, Biospherics Incorporated, a wholly-owned subsidiary of the Company, filed a Complaint For Injunction Relief And Damages in The United States District Court For The District Of Maryland against Inalco S.p.A. (the Complaint). The Complaint alleged that Inalco had breached the previously-announced 2009 Manufacturing Support and Supply Agreement as Inalco (i) refused to supply D-tagatose previously paid for by Biospherics, (ii) refused to provide a promised bank guarantee, and (iii) shut-down its D-tagatose production facilities. On March 16, 2011, both parties signed a settlement agreement whereby Inalco agreed to supply Spherix with 8.5 metric tons of D-tagatose and both parties have agreed to release each other from any other obligations under the previous agreement.

Item 4. REMOVED AND RESERVED

PART II

Item 5. MARKET FOR REGISTRANT S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

As of March 16, 2011, the number of shareholders of record of the Company s common stock was approximately 800. The Company s common stock is traded in the over-the-counter market and is quoted in the NASDAQ Capital Market System under the symbol SPEX. No dividends were paid in 2010 or 2009.

The following table states the high and low sales prices of the Company s common stock for each quarter during the two year period ended December 31, 2010, based on the daily high and low prices as reported by NASDAQ:

	High	Low
1st Quarter 2010	$ 1.96	$ 1.10
2nd Quarter 2010	$ 1.47	$ 1.00
3rd Quarter 2010	$ 1.94	$ 1.16
4th Quarter 2010	$ 2.10	$ 0.52
1st Quarter 2009	$ 0.90	$ 0.25
2nd Quarter 2009	$ 2.67	$ 0.70
3rd Quarter 2009	$ 2.61	$ 1.10
4th Quarter 2009	$ 4.15	$ 1.10

On November 24, 2010, the Company received written notification (the Notice) from NASDAQ advising the Company that the bid price of the Company s common stock for the previous thirty (30) consecutive trading days had closed below the minimum $1.00 per share (the Minimum Price Requirement) required for continued listing on the NASDAQ Capital Market.

Pursuant to NASDAQ s rules, the Company has been provided an initial period of 180 calendar days, or until May 23, 2011, to regain compliance with the Minimum Price Requirement. The Notice further provides that

NASDAQ will provide written notification stating that the Company has achieved compliance with the rule if at any time before May 23, 2011, the bid price of the common stock closes at $1.00 per share or more for a minimum of ten (10) consecutive business days, although, under certain circumstances, NASDAQ has the discretion to require compliance for a period in excess of ten (10) consecutive business days.

If the Company does not regain compliance with the Minimum Price Requirement by May 23, 2011, and if the Company is not granted an additional 180 day extension by NASDAQ, NASDAQ will provide notice to the Company that the common stock will be delisted from the NASDAQ Capital Market. If the Company receives such a letter, the Company will have an opportunity to appeal the determination to a NASDAQ Hearings Panel.

The Company s stockholders have previously approved and authorized the Company s Board of Directors to effect a reverse stock split at any time prior to mid-May, 2011. The Company s Board of Directors will consider whether and when to implement such a split.

On January 19, 2011, the Company entered into a securities purchase agreement with certain investors to sell an aggregate of 4,269,000 shares of its common stock and warrants to purchase up to an additional 2,134,500 shares of its common stock to such investors for gross proceeds of approximately $2.77 million. The common stock and warrants were sold in units, with each unit consisting of one share of common stock and a warrant to purchase 0.50 of a share of common stock. The purchase price per unit was $0.65. Subject to certain ownership limitations, the warrants are exercisable at any time commencing six (6) months after the initial issue date and on or prior to January 24, 2016, but not thereafter, at an exercise price of $0.80. The exercise price of the warrants is subject to adjustment in the case of stock splits, stock dividends, combinations of shares and similar recapitalization transactions. The net proceeds to the Company from the registered direct offering, after deducting placement agent fees and the Company s offering expenses, and excluding the proceeds, if any, from the exercise of the warrants issued in the offering, were approximately $2.6 million. The common stock issued in the January, 2011 offering and the common stock which may be issued pursuant to the exercise of the warrants have been registered pursuant to a Form S-3 registration statement, which became effective in October, 2009, and are classified as permanent equity.

In connection with the closing of our January 2011 offering, the Company issued to Rodman & Renshaw, LLC, as partial consideration for its services as placement agent, warrants to purchase up to 128,070 shares of our common stock at an exercise price of $0.8125 per share. The warrants are exercisable at the option of the holder at any time beginning six (6) months after the closing through and including January 24, 2013. These warrants were offered and sold by us in reliance upon exemptions from the registration statement requirements by Section 4(2) of the Securities Act of 1933, as amended, as transactions by an issuer not involving a public offering.

On October 7, 2010, the Company and certain investors entered into a securities purchase agreement, pursuant to which the Company agreed to sell an aggregate of 5,250 shares of its Series B Convertible Preferred Stock and warrants to purchase up to an additional 2,100,000 shares of its common stock to such investors for gross proceeds of approximately $5.25 million. Each share of Series B Convertible Preferred Stock was convertible at the option of the holder, at any time, into 800 shares of common stock based on a conversion price of $1.25 per share of Series B Convertible Preferred Stock. The preferred stock and warrants were sold in units, with each unit consisting of one share of preferred stock and a warrant to purchase 0.5 of a share of common stock. The purchase price per unit was $1,000.00. Subject to certain ownership limitations, the warrants are exercisable at any time on or after the initial date and on or prior to October 6, 2015, but not thereafter, at an exercise price of $1.50 per share. The exercise price of the warrants is subject to adjustment in the case of stock splits, stock dividends, combinations of share and similar recapitalization transactions. The net proceeds to the Company from the October 2010 offering, after deducting placement agent fees and the Company s offering expenses, and excluding the proceeds, if any, from the exercise of the warrants issued in the offering, were approximately $4.9 million. The preferred stock, warrants to purchase common stock (including the placement agent warrants) and shares of common stock issuable upon conversion of the preferred stock and exercise of the warrants were issued pursuant to a prospectus filed with the Securities and Exchange Commission pursuant to a registration statement on Form S-1 (File No. 333-167963), which became effective on October 6, 2010, and are classified as permanent equity.

In connection with the closing of the October 2010 offering, the Company issued to Rodman & Renshaw, LLC warrants to purchase 126,000 shares of our common stock (at an exercise price of $1.5625 per share). The warrants are exercisable at the option of the holder at any time beginning October 13, 2010 through and including

October 13, 2015. These warrants were offered and sold by us in reliance upon exemptions from the registration statement requirements by Section 4(2) of the Securities Act of 1933, as amended, as transactions by an issuer not involving a public offering.

On November 16, 2009, the Company entered into a securities purchase agreement with certain investors, to sell an aggregate of 2,760,870 shares of its common stock and warrants to purchase up to an additional 1,104,348 shares of its common stock to such investors for gross proceeds of approximately $6.3 million. The common stock and warrants were sold in units, with each unit consisting of one share of common stock and a warrant to purchase 0.40 of a share of common stock. The purchase price per unit was $ 2.30. Subject to certain ownership limitations, the warrants are exercisable at any time on or after the initial issue date and on or prior to November 16, 2014, but not thereafter, at an exercise price of $ 3.25. The exercise price of the warrants is subject to adjustment in the case of stock splits, stock dividends, combinations of shares and similar recapitalization transactions. The net proceeds to the Company from the registered direct offering, after deducting placement agent fees and the Company s offering expenses, and excluding the proceeds, if any, from the exercise of the warrants issued in the offering, were approximately $6 million. The common stock issued in the November, 2009 offering and the common stock which may be issued pursuant to the exercise of the warrants have been registered pursuant to a Form S-3 registration statement, which became effective in October, 2009, and are classified as permanent equity.

In connection with the closing of our November, 2009 registered direct offering, the Company issued to Rodman & Renshaw, LLC, as partial consideration for its services as placement agent, warrants to purchase up to 82,826 shares of our common stock at an exercise price of $2.875 per share. The warrants are exercisable at the option of the holder at any time beginning on November 16, 2009 through and including November 16, 2011. These warrants were offered and sold by us in reliance upon exemptions from the registration statement requirements by Section 4(2) of the Securities Act of 1933, as amended, as transactions by an issuer not involving a public offering.

Equity Compensation Plan Information

The following table provides information about the Company s common stock that may be issued upon the exercise of options and rights under all of the Company s existing equity compensation plans as of December 31, 2010.

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	189,088(1)	$ 1.58	647,136**(3)**
Equity compensation plans not approved by securities holders	82,826(2)	$ 2.875	N/A
Total	271,914		647,136

(1) Consists of options to acquire 63,088 shares of our common stock issued to our key employees and directors; and warrants to purchase 126,000 shares of our common stock issued to our placement agent in connection with the October 2010 offering. On August 31, 2010, our stockholders provided the Board of Directors the authority to issue securities which led to the October 2010 offering.

(2) Consists of warrants to purchase 82,826 shares of our common stock issued to our placement agent with respect to the November 2009 offering.

(3) Consists of shares of common stock available for future issuance under our equity incentive plan.

Item 6. SELECTED FINANCIAL DATA

Not applicable.

Item 7. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview

The Company operates via two segments, Biospherics and Health Sciences. Biospherics seeks to develop proprietary pharmaceutical products. Health Sciences provides technical and regulatory consulting services to food, consumer products, biotechnology and pharmaceutical companies, as well as providing technical support to the Biospherics segment.

Biospherics is dedicated to development of pharmaceuticals. Until June 2010, this development was limited to developing D-tagatose as a novel, first-in-class treatment for Type 2 diabetes. In June 2010, the Company announced that it will actively seek a pharma partner to continue the diabetes development and that it will also explore D-tagatose as a potential treatment for high triglycerides, a risk factor for atherosclerosis, myocardial infarction, and stroke.

D-Tagatose, a naturally occurring sugar, is a low-calorie, full-bulk sweetener previously approved by the Food and Drug Administration (FDA) as a GRAS (Generally Recognized As Safe) food ingredient. During human safety studies supporting food use, we discovered and patented a number of health and medical uses for D-tagatose. We hold the patents for use of D-tagatose as a treatment for Type 2 diabetes and the license for the pending PCT (Patent Cooperation Treaty) patents for D-tagatose in new formulations as a treatment for high blood triglycerides. The use patents for D-tagatose as a treatment for Type 2 diabetes expire in 2012, not including extensions. If approved for use as a drug by the FDA as a treatment for Type 2 diabetes, we believe we will be eligible for a five-year New Chemical Entity (NCE) exclusivity period following FDA approval. Similar legislation in Europe could provide seven or more years of market exclusivity in the European Union, if approved by the European Medicines Agency (EMA). If patents are awarded for the drugs for treatment of hypertriglyceridemia, twenty years of market exclusivity would be obtained in the USA. Exclusivity in other countries could also be obtained by filing individual applications in countries covered by the PCT.

Results of Operations 2010 Compared with 2009

Revenue and Direct Costs

Revenue and direct contract costs are primarily related to the Company s Health Sciences business. The consulting business generally provides services on either a fixed-price basis or a time and expenses basis, charging hourly rates for each staff member involved in a project, based on his or her skills and experience. Engagement agreements typically provide for monthly billing and payment within thirty (30) days of receipt, and permit clients to terminate engagements at any time. Revenue increased $73,000 (5%) between years compared to an increase in direct costs

of $68,000 (15%). The increase in direct costs is directly related to an increase in labor costs between years, while the current recession has suppressed the growth in revenue.

No substantial revenue is expected from the Biospherics segment until the Company is successful in selling or licensing its technology.

Research and Development

Research and development expenditures relate solely to the Biospherics segment and consist primarily of salaries and related personnel costs, fees paid to consultants and outside service providers, and other expenses related to our efforts to develop D-tagatose for future commercialization. We expense our research and development costs as they are incurred.

The clinical trials in the use of D-tagatose for the treatment of Type 2 diabetes have been the primary focus of the Biospherics segment. The R&D expenditures for 2010 and 2009 consisted of both the Phase 3 clinical trial and a related Phase 2 Dose Range study. R&D expenses decreased by $1.98 million between years. Included in R&D costs was an expense of $1.4 million for the purchase of D-tagatose in 2009 and none in 2010. The clinical portion of both trials were completed during 2010.

Each of the Phase 3 trial to determine efficacy of D-tagatose as a treatment for Type 2 diabetes and the Phase 2 Dose Range trial to evaluate the effectiveness of lower doses of D-tagatose in treating Type 2 diabetes were completed in late 2010. As we have determined that it would take several additional years of clinical trials and could cost as much as several hundred million dollars to seek and obtain FDA approval for D-tagatose as a diabetes drug, the safety portion of the Phase 3 trial has been terminated. We are actively seeking a pharma partner to continue the development of D-tagatose as a treatment for Type 2 diabetes, but there is no assurance that we would obtain such a strategic relationship.

Beginning in the fourth quarter of 2010, the Company began shifting the focus of its R&D efforts to the use of D-tagatose in lowering triglyceride levels and anticipates a decrease in R&D costs in the initial years of the triglyceride studies. Pre-clinical trials for the use of D-tagatose in lowering triglyceride levels will be conducted in 2011 and a human proof-of-concept trial may begin later in 2011. We estimate that it will likely take three or more years to complete the studies/trials necessary to attract a pharma partner to complete the development and an additional 2-4 years to complete all necessary studies for an NDA filing. We expect the R&D expenses to be incurred in 2011 for pre-clinical triglyceride trials will be substantially less than the R&D costs incurred in 2010 when we were completing the Phase 2 and 3 diabetes clinical trials.

Selling, General and Administrative

Our selling, general and administrative (S,G&A) expenses consist primarily of salaries and related expenses for executive, finance and other administrative personnel, professional fees and other corporate expenses, including facilities-related expenses. S,G&A expenses for 2010 increased $819,000 (25%) over those of the prior year. Expansion of the Company s commercialization efforts of D-tagatose as a treatment for Type 2 diabetes and high-triglycerides accounted for approximately $391,000 of the increase between the years. Increased labor costs, including severance pay of $125,000, accounted for an additional $329,000 of the increase between the years.

Other Income

In October 2010, the Company was awarded two one-time grants from the U.S. Government under the Patient Protection and Affordable Care Act. The awards were for the Company s 2009 and 2010 Diabetes and Triglyceride research. As a result, in 2010 the Company recognized $136,000 in other income, net of a related tax benefit of $133,000.

Interest

Interest revenue in 2010 and 2009 was primarily derived from interest earned on the net proceeds of the sale of the InfoSpherix subsidiary in August 2007 and from the net proceeds of our equity offerings. The decrease in interest revenue between years is attributable to the decrease in funds available for investing.

Income Tax Benefit

The 2010 income tax benefit was directly related to the above mentioned grants.

Sales Backlog

The Company s backlog as of December 31, 2010 and 2009 (consisting solely of backlog from the Health Sciences business) was approximately $308,000 and $770,000, respectively. The Company bills for its consulting services primarily on a time and expense basis and these amounts represent estimated contract values. Further, the Company s consulting contracts are generally terminable or subject to postponement or delay at any time by clients. As a result, backlog at any particular time is not a reliable indicator of revenues for any future periods.

Critical Accounting Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of the contingent assets and liabilities at the date of the financial statements and revenue and expenses for the period reported. Estimates are based upon historical experience and various other assumptions that are believed to be reasonable under the circumstances. These estimates are evaluated periodically and form the basis for making judgments regarding the carrying values of assets and liabilities and the reported amount of revenue and expenses. Actual results may differ substantially from these estimates.

Spherix s critical accounting policies are those it believes are the most important in determining its financial condition and results, and require significant subjective judgment by management as a result of inherent uncertainties. A summary of the Company s significant accounting policies is set out in the notes to the consolidated financial statements. Such policies are discussed below.

Accounting for Taxes and Valuation Allowances

We currently have significant deferred tax assets, resulting from net operating loss carry forwards. These deferred tax assets may reduce taxable income in future periods. Based on the Company s losses and its accumulated deficit, the Company has provided a full valuation allowance against the net deferred tax asset. Cumulative losses weigh heavily in the overall assessment of valuation allowances.

We expect to continue to maintain a full valuation allowance on future tax benefits until an appropriate level of profitability is sustained, or we are able to develop tax strategies that would enable us to conclude that it is more likely than not that a portion of our deferred tax assets would be realizable.

New Accounting Pronouncements

In January 2010, new disclosures became effective relating to fair value measurements. These enhanced disclosures have been fully adopted by the Company and are reflected in Note 3 Fair Value Measurements. The adoption of these disclosure rules had no effect on the Company s financial position, results of operations or cash flows.

In October 2009, the Financial Accounting Standards Board (FASB) issued ASC Update No. 2009-13, which amends the Revenue Recognition topic of the Codification. This update provides amendments to the criteria in Subtopic 605-25 of the Codification for separating consideration in multiple-deliverable arrangements. As a result of those amendments, multiple-deliverable arrangements will be separated in more circumstances than under existing U.S. GAAP. The amendments establish a selling price hierarchy for determining the selling price of a deliverable and will replace the term fair value in the revenue allocation guidance with selling price to clarify that the allocation of revenue is based on entity-specific assumptions rather than assumptions of a marketplace participant. The amendments will also eliminate the residual method of allocation and require that arrangement consideration be allocated at the inception of the arrangement to all deliverables using the relative selling price method and will require that a vendor determine its best estimate of selling price in a manner that is consistent with that used to determine the price to sell the deliverable on a stand-alone basis. These amendments will be effective prospectively for revenue arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010, with early adoption permitted. The adoption of these disclosure rules had no effect on the Company s financial position, results of operations or cash flows.

In July 2010, the FASB issued an accounting update to provide guidance to enhance disclosures related to the credit quality of a company s financing receivables portfolio and the associated allowance for credit losses. Pursuant to this accounting update, a company is required to provide a greater level of disaggregated information about its allowance for credit loss with the objective of facilitating users evaluation of the nature of credit risk inherent in the company s portfolio of financing receivables, how that risk is analyzed and assessed in arriving at the allowance for credit losses, and the changes and reasons for those changes in the allowance for credit losses. The revised disclosures as of the end of the reporting period are effective for the Company beginning in 2011. The Company is currently evaluating the impact of this accounting update on its financial disclosures.

In December 2010, the FASB issued ASU No. 2010-29, Business combinations disclosure of supplementary pro forma information, (ASU 2010-29) to amend topic ASC 805 Business Combinations, by improving disclosure requirements related to the business combinations performed during the year being reported on. Under the amended guidance, a public entity that presents comparative financial statements must disclose the pro forma revenue and earnings of the combined entity as though the business combination had occurred as of the beginning of the prior annual reporting period. The Company is currently evaluating the impact the adoption of this update might have on its financial disclosures.

Liquidity and Capital Resources

We expect to continue to incur substantial development costs in our Biospherics segment in the next several years, without substantial corresponding revenue, and we will continue to incur ongoing administrative and other expenses, including public company expenses. We intend to finance our activities through:

- the remaining proceeds of the November 2009, October 2010 and January 2011 registered direct equity offerings, which resulted in net proceeds of $6 million, $4.9 million and $2.6 million, respectively;

- two one-time grants totaling approximately $270,000 from the U.S. Government in support of the Company s diabetes and triglyceride research. received in the first quarter of 2011; and

- additional funds we will seek to raise through the sale of additional stock in the future.

Working capital was $4.9 million at December 31, 2010, including $5.5 million on hand. Management believes that this cash on hand, combined with the $2.6 million of net proceeds of the January 2011 offering, provide us with sufficient cash to sustain operations for 2011. We expect that we will need to expend between $3 million and $5 million over the next twelve (12) months to support our currently planned development operations. This estimate assumes (i) continuing efforts to sell, license, or obtain a partner for the diabetes drug application, (ii) no further significant expenditures for developing D-tagatose as a drug for diabetes, (iii) continuing development of D-tagatose as a treatment for high triglycerides, (iv) ongoing operation of the Health Sciences segment at the current level of activity and (v) that we raise additional funds to continue our development efforts beyond this 12-month period.

Due to the nature of our business, we will need to raise additional funds on a consistent basis to continue operations and to fully pursue the triglycerides opportunity. Fundraising will likely require the issuance of additional equity securities and a purchaser of such securities will likely insist that such securities be registered securities. NASDAQ rules require stockholder approval for certain stock issuances constituting twenty percent (20%) or more of a company s issued and outstanding stock.

The Company cannot be assured that it will be able to attract a purchaser of securities to raise the additional funds it will likely require; that the Company will be able to obtain any required stockholder approval; or that the Company will be able to have additional registered direct primary offerings. If we reach a point where we are unable to raise needed additional funds to continue our business activities, we will be forced to cease our development activities and dissolve the Company. In such an event, we will need to satisfy various severance, lease termination and other dissolution-related obligations.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Financial statements and supplementary data required by this Item 8 follow.

Index to Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders

Spherix Incorporated

We have audited the accompanying consolidated balance sheets of Spherix Incorporated (a Delaware corporation) and subsidiaries as of December 31, 2010 and 2009, and the related consolidated statements of operations, changes in stockholders equity, and cash flows for each of the two years in the period ended December 31, 2010. 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 audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform an audit of its 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 financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Spherix Incorporated as of December 31, 2010 and 2009, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Baltimore, MD

March 30, 2010

Spherix Incorporated

Consolidated Statements of Operations

For the Years Ended December 31, 2010 and 2009

	2010	2009
Revenue	$ 1,432,452	$ 1,359,110
Operating expense		
Direct costs	(517,677)	(449,293)
Research and development expense	(4,846,111)	(6,830,957)
Selling, general and administrative expense	(4,080,123)	(3,265,137)
Total operating expense	(9,443,911)	(10,545,387)
Loss from operations	(8,011,459)	(9,186,277)
Other income	135,914	
Interest income	6,109	37,646
Loss from continuing operations before taxes	(7,869,436)	(9,148,631)
Income tax benefit	133,194	
Net loss	(7,736,242)	(9,148,631)
Net (loss) income per share, basic	$ (0.43)	$ (0.62)
Net (loss) income per share, diluted	$ (0.43)	$ (0.62)
Weighted average shares outstanding, basic	18,061,322	14,713,473
Weighted average shares outstanding, diluted	18,061,322	14,713,473

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

Spherix Incorporated

Consolidated Balance Sheets

For the Years Ended December 31, 2010 and 2009

	2010	2009
ASSETS		
Current assets		
Cash and cash equivalents	$ 5,575,310	$ 9,026,002
Short-term investments, held to maturity		375,003
Trade accounts receivable, net	285,859	274,153
Grants receivable	270,128	
Other receivables	74,110	948
Prepaid research expenses	464,322	
Prepaid expenses and other assets	155,261	209,255
Total current assets	6,824,990	9,885,361
Property and equipment, net	154,161	225,958
Patents, net of accumulated amortization of $50,725 and $44,657	2,296	8,364
Deposit	35,625	35,625
Total assets	$ 7,017,072	$ 10,155,308
LIABILITIES AND STOCKHOLDERS EQUITY		
Current liabilities		
Accounts payable and accrued expenses	$ 1,211,561	$ 1,714,140
Accrued salaries and benefits	563,706	388,665
Deferred revenue	170,641	90,915
Total current liabilities	1,945,908	2,193,720
Deferred compensation	550,000	580,000
Deferred rent	80,945	109,712
Total liabilities	2,576,853	2,883,432
Commitments and contingencies		
Stockholders equity		
Preferred stock, $0.01 par value, 2,000,000 shares authorized; 5,250 series B issued and 1 outstanding at December 31, 2010, none issued and outstanding at December 31, 2009		
Common stock, $0.005 par value, 50,000,000 shares authorized; 21,436,310 and 17,231,086 issued, 21,355,872 and 17,150,648 outstanding at December 31, 2010 and 2009, respectively	107,182	86,155
Paid-in capital in excess of par value	38,483,068	33,599,510
Treasury stock, 80,438 shares, at cost at December 31, 2010 and 2009, respectively	(464,786)	(464,786)
Accumulated deficit	(33,685,245)	(25,949,003)
Total stockholders equity	4,440,219	7,271,876
Total liabilities and stockholders equity	$ 7,017,072	$ 10,155,308

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

Spherix Incorporated

Consolidated Statements of Changes in Stockholders Equity

For the Years Ended December 2010 and 2009

	Preferred Stock		Common Stock		Paid-in Capital in	Treasury Stock		Retained Earnings (Accumulated	Stockholders
	Shares	Amount	Shares	Amount	Excess of Par	Shares	Amount	Deficit)	Equity
Balance, January 1, 2009		$	14,437,600	$ 72,188	$ 27,602,486	80,438	$ (464,786)	$ (16,800,372)	$ 10,409,516
Sale of common stock, net of offering costs of $416,347			2,760,870	13,804	5,919,849				5,933,653
Stock-based compensation			32,616	163	77,175				77,338
Net loss								(9,148,631)	(9,148,631)
Balance, December 31, 2009			17,231,086	86,155	33,599,510	80,438	(464,786)	(25,949,003)	7,271,876
Sale of series B preferred stock, net of offering costs of $382,500	5,250	52			4,867,448				4,867,500
Conversion of series B preferred stock into common stock	(5,249)	(52)	4,199,200	20,996	(20,944)				
Stock-based compensation			6,024	31	37,054				37,085
Net loss								(7,736,242)	(7,736,242)
Balance, December 31, 2010	1	$	21,436,310	$ 107,182	$ 38,483,068	80,438	$ (464,786)	$ (33,685,245)	$ 4,440,219

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

Spherix Incorporated

Consolidated Statements of Cash Flows

For the Years Ended December 31, 2010 and 2009

	2010	2009
Cash flows from operating activities		
Net loss	$ (7,736,242)	$ (9,148,631)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	77,865	84,377
Loss on sale of fixed assets		5,399
Bad debt expense	65,000	
Stock-based compensation	37,085	77,338
Changes in assets and liabilities:		
Receivables	(419,996)	43,464
Prepaid expenses and other assets	(410,328)	73,716
Accounts payable and accrued expenses	(327,538)	1,087,168
Deferred rent	(28,767)	(27,024)
Deferred compensation	(30,000)	(80,000)
Deferred revenue	79,726	51,568
Net cash used in operating activities	(8,693,195)	(7,832,625)
Cash flows from investing activities		
Proceeds from the maturity of short-term investments	375,003	1,519,431
Proceeds from the sales of fixed assets		700
Net cash provided by investing activities	375,003	1,520,131
Cash flows from financing activities		
Proceeds from issuance of Series B Preferred stock, net	4,867,500	
Proceeds from issuance of common stock, net		5,933,653
Net cash provided by financing activities	4,867,500	5,933,653
Net decrease in cash and cash equivalents	(3,450,692)	(378,841)
Cash and cash equivalents, beginning of year	9,026,002	9,404,843
Cash and cash equivalents, end of year	$ 5,575,310	$ 9,026,002

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

Spherix Incorporated

Notes to Consolidated Financial Statements

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1. Summary of Significant Accounting Policies

Nature of Business and Basis of Presentation

The Company s principal segments are Biospherics, our biotechnology research and development business, and Health Sciences, a technical and regulatory consulting business. The Health Sciences business provides technical and regulatory consulting services to biotechnology and pharmaceutical companies, as well as providing technical support for the Company s own R&D activities. The Company generally provides its services on either a fixed price basis or on a time and expenses basis, charging hourly rates for each staff member involved in a project, based on his or her skills and experience.

The Company has two wholly-owned subsidiaries, Biospherics Incorporated and Spherix Consulting, Inc., for its two operating segments. The Company s Health Sciences contracts are in the name of Spherix Consulting, Inc. and the Company s patents and other assets and operations are in the name of Biospherics Incorporated. Spherix Incorporated provides management, strategic guidance, business development, marketing and other services to its subsidiaries.

The consolidated financial statements include the accounts of Spherix Incorporated, Biospherics Incorporated and Spherix Consulting, Inc. (collectively, the Company). All intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates and Assumptions

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America. This requires management to make estimates and assumptions that affect certain reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the period. Significant estimates include allowance for doubtful accounts, stock compensation expense, amortization and depreciation. Accordingly, actual results could differ from those estimates and assumptions.

Cash and Cash Equivalents

The Company considers all highly liquid investments with original maturities of three months or less when purchased to be cash and cash equivalents. At December 31, 2010 and 2009, the Company had approximately $5.3 and $8.9 million invested in funds with a maturity of three

months or less, which are considered cash and cash equivalents. The Company maintains cash balances at several banks. Interest bearing accounts at each institution are insured by the Federal Deposit Insurance Corporation up to $250,000. At December 31, 2010, the Company s interest bearing deposits in excess of the FDIC limits was $5.3 million. The Company has not experienced any losses in such accounts and believes it is not exposed to any significant credit risk on cash.

Short-term Investments

The Company s short-term investments consisted of investments in debt securities, which matured in one year or less, and were valued at amortized cost, which approximated fair value.

Concentrations

During each of 2010 and 2009, 99% of our revenue was generated from the Health Sciences business. In 2010, revenue from one customer accounted for 10% of revenues. In 2009, five customers accounted for 19%, 16%, 14%, 12% and 11% of revenues, respectively.

Spherix Incorporated

Notes to Consolidated Financial Statements

Property and Equipment and Depreciation

Property and equipment are stated at cost and consist of office furniture and equipment, computer hardware and software, and leasehold improvements. The Company computes depreciation and amortization under the straight-line method and typically over the following estimated useful lives of the related assets:

Office furniture and equipment	3 to 10 years
Computer hardware and software	3 to 5 years

Leasehold improvements are depreciated or amortized over the shorter of the term of the related lease or the estimated useful lives of the assets (generally 5 to 10 years). Major additions, improvements and renewals are capitalized at cost and ordinary repairs, maintenance, and renewals are expensed in the year incurred. Gains or losses from the sale or retirement of property and equipment result from the difference between sales proceeds (if any) and the assets net book value, and are recorded in the consolidated Statement of Operations.

Patent Costs

Legal costs incurred in connection with patent applications and costs of acquiring patents are capitalized when incurred. When patents are granted, costs are amortized over a term representing the shorter of the life of the patent or the projected sales period of the product or process.

Impairment of Long-Lived Assets

Whenever events or changes in circumstances indicate that the carrying amount of long-lived assets, including patents and property and equipment, may not be fully recoverable, the Company evaluates the probability that the future undiscounted net cash flows, without interest charges, will be less than the carrying amount of the assets. If any impairment is indicated as a result of this review, the Company would recognize a loss based on the amount by which the carrying amount exceeds the estimated fair value, determined based on the discounted future cash flows. No such impairment was noted.

Revenue Recognition

Revenue is recognized when persuasive evidence of an arrangement exists, services have been rendered, the contract price is fixed or determinable and collectability is reasonably assured. On time and expense contracts revenue is recognized at contractually agreed-upon rates based upon direct labor hours expended and other direct costs incurred. Revenue for fixed-price contracts is recognized as deliverables or milestones are completed. Losses, if any, on contracts are recorded during the period when first determined.

Direct Costs

The Company s direct costs consist primarily of labor costs.

Research and Development Costs

Research and development costs are charged to operations as incurred. Included in the 2009 research and development costs is $1.4 million in losses related to purchases of D-tagatose used for trial purposes.

Selling, General and Administrative Expense

The Company s selling, general and administrative expenses consist primarily of executive management salaries and fringe benefits, sales and marketing costs, finance and accounting, human resources, as well as general corporate costs and costs related to being a public company.

Spherix Incorporated

Notes to Consolidated Financial Statements

Other Income

Other income consists of two grants from the U.S. Government awarded in October 2010 in support of the Company s 2009 and 2010 diabetes and triglyceride research. As a result, in 2010 the Company recognized $136,000 in other income, net of a related tax benefit of $133,000.

Income Taxes

Deferred income taxes are recognized for the tax consequences in future years of differences between the tax bases of assets and liabilities and their financial reporting amounts at each year end, based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable income. A valuation allowance is established based upon periodic assessments made by management to reduce deferred tax assets to the amount expected to be realized. Income tax expense is the current tax provision for the period and the change during the period in deferred tax assets and liabilities.

During 2010, the Company s subsidiary, Biospherics Incorporated, received notice from the IRS that it had been awarded two grants under IRC Section 48D of the Internal Revenue Code s Qualifying Therapeutic Discovery Project. The amount received pursuant to the QTDP Grant was $270,000 of which $133,000 related to the income tax benefit associated with the realization or monetization of prior-period tax attributes for which the Company had previously established a valuation allowance.

The Company s policy is to recognize interest and penalties on tax liabilities as interest expense. At December 31, 2010 and 2009, the Company had no unrecognized income tax benefits and recognized no interest or penalties on income tax liabilities.

Fair Value Information

The estimated fair value of the Company s financial instruments, which include cash, receivables, and accounts payable reported in the Consolidated Balance Sheets, approximate their carrying value given their short maturities.

Accounting for Stock-Based Compensation

The Company applies the fair value method, which requires that the measurement of all employee share-based payments to employees, including grants of employee stock options, be expensed over their requisite service period based on their value at the grant date using their fair value, determined using a prescribed option-pricing model. The Company uses a Black-Scholes option pricing model to value stock options. For the years ended December 31, 2010 and 2009, the Company recognized $30,417 and $13,160 in stock based compensation expense relating to 26,664 stock options awarded in April 2010 and 59,000 stock options awarded in February 2006, and also recognized $6,668 and $64,178, respectively, related to the issuance of restricted stock (see Note 8, Stockholders Equity).

Net Loss Per Share

Basic net loss per common share has been computed by dividing net loss by the weighted-average number of common shares outstanding during the year. Diluted net loss per common share has been computed by dividing net loss by the weighted-average number of common shares outstanding without an assumed increase in common shares outstanding for common stock equivalents, as common stock equivalents are antidilutive. At December 31, 2010, 1,381 of the Company s 63,088 outstanding options were considered common stock equivalents as the exercise prices of those 1,381 options were below the average market price of the Company s common stock for the period. None of the 3,413,174 warrants were considered common stock equivalents at December 31, 2010 as the exercise prices of the warrants were above the average market price of the Company s common stock for the period.

New Accounting Pronouncements

In January 2010, new disclosures became effective relating to fair value measurements. The adoption of these disclosure rules had no effect on the Company s financial position, results of operations or cash flows.

Spherix Incorporated

Notes to Consolidated Financial Statements

In October 2009, the Financial Accounting Standards Board (FASB) issued ASC Update No. 2009-13, which amends the Revenue Recognition topic of the Codification. This update provides amendments to the criteria in Subtopic 605-25 of the Codification for separating consideration in multiple-deliverable arrangements. As a result of those amendments, multiple-deliverable arrangements will be separated in more circumstances than under existing U.S. GAAP. The amendments establish a selling price hierarchy for determining the selling price of a deliverable and will replace the term fair value in the revenue allocation guidance with selling price to clarify that the allocation of revenue is based on entity-specific assumptions rather than assumptions of a marketplace participant. The amendments will also eliminate the residual method of allocation and require that arrangement consideration be allocated at the inception of the arrangement to all deliverables using the relative selling price method and will require that a vendor determine its best estimate of selling price in a manner that is consistent with that used to determine the price to sell the deliverable on a stand-alone basis. These amendments will be effective prospectively for revenue arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010, with early adoption permitted. The adoption of these disclosure rules had no effect on the Company s financial position, results of operations or cash flows.

In July 2010, the FASB issued an accounting update to provide guidance to enhance disclosures related to the credit quality of a company s financing receivables portfolio and the associated allowance for credit losses. Pursuant to this accounting update, a company is required to provide a greater level of disaggregated information about its allowance for credit loss with the objective of facilitating users evaluation of the nature of credit risk inherent in the company s portfolio of financing receivables, how that risk is analyzed and assessed in arriving at the allowance for credit losses, and the changes and reasons for those changes in the allowance for credit losses. The revised disclosures as of the end of the reporting period are effective for the Company beginning in 2011. The Company is currently evaluating the impact of this accounting update on its financial disclosures.

In December 2010, the FASB issued ASU No. 2010-29, Business combinations disclosure of supplementary pro forma information, (ASU 2010-29) to amend topic ASC 805 Business Combinations, by improving disclosure requirements related to the business combinations performed during the year being reported on. Under the amended guidance, a public entity that presents comparative financial statements must disclose the pro forma revenue and earnings of the combined entity as though the business combination had occurred as of the beginning of the prior annual reporting period. The Company is currently evaluating the impact the adoption of this update might have on its financial disclosures.

2. Liquidity

We expect to continue to incur substantial development costs in our Biospherics segment in the next several years, without substantial corresponding revenue, and we will continue to incur ongoing administrative and other expenses, including public company expenses. We intend to finance our activities through:

- the remaining proceeds of the November 2009, October 2010 and January 2011 registered direct equity offerings, which resulted in net proceeds of $6 million, $4.9 million and $2.6 million, respectively;

- two one-time grants totaling approximately $270,000 from the U.S. Government in support of the Company s diabetes and triglyceride research received in the first quarter of 2011; and

- additional funds we will seek to raise through the sale of additional stock in the future.

Working capital was $4.9 million at December 31, 2010, including $5.5 million on hand. Management believes that this cash on hand, combined with the $2.6 million of net proceeds of the January 2011 offering, provide us with sufficient cash to sustain operations for 2011. We expect that we will need to expend approximately $3 million to $5 million over the next twelve (12) months to support our currently planned operations. This estimate assumes (i) continuing efforts to sell, license, or obtain a partner for the diabetes drug application, (ii) no further significant expenditures for developing D-tagatose as a drug for diabetes, (iii) continuing development of D-tagatose as a treatment for high triglycerides, (iv) ongoing operation of the Health Sciences segment at the current level of activity and (v) that we raise additional funds to continue our development efforts beyond this 12 month period.

Due to the nature of our business, we will need to raise additional funds on a consistent basis to continue operations and to fully pursue the triglycerides opportunity. Fundraising will likely require the issuance of additional equity securities and a purchaser of such securities will likely insist that such securities be registered securities.

Spherix Incorporated

Notes to Consolidated Financial Statements

NASDAQ rules require stockholder approval for certain stock issuances constituting twenty percent (20%) or more of a company s issued and outstanding stock.

The Company cannot be assured that it will be able to attract a purchaser of securities to raise the additional funds it will likely require; that the Company will be able to obtain any required stockholder approval; or that the Company will be able to have additional registered direct primary offerings. If we reach a point where we are unable to raise needed additional funds to continue our business activities, we will be forced to cease our development activities and dissolve the Company. In such an event, we will need to satisfy various severance, lease termination and other dissolution-related obligations.

3. Fair Value Measurements

The Company has elected not to apply the fair value option to measure any of the financial assets and liabilities on its balance sheet not already valued at fair value under other accounting pronouncements. These other financial assets and liabilities are primarily short-term investments, accounts receivable, accounts payable and debt, which are reported at historical value. The fair value of these financial assets and liabilities approximate their fair value because of their short duration.

4. Allowance for Doubtful Accounts

Management regularly reviews accounts receivable for uncollectible and potentially uncollectible accounts, and when necessary establishes an allowance for doubtful accounts. Balances that are outstanding after management has used reasonable collection efforts are written-off through a charge to the valuation allowance and a credit to accounts receivable. At December 31, 2010, the allowance for doubtful accounts was $65,000. An allowance for doubtful accounts was not deemed necessary at December 31, 2009.

Balance, January 1, 2009	$	0
Provision for doubtful accounts		0
Balance December 31, 2009		0
Provision for doubtful accounts		65,000
Balance December 31, 2010	$	65,000

5. Property and Equipment

The components of property and equipment as of December 31, at cost are:

	2010	2009
Computers	$ 14,000	$ 14,000
Office furniture and equipment	109,000	109,000
Leasehold improvements	229,000	229,000
Total cost	352,000	352,000
Accumulated depreciation and amortization	(198,000)	(126,000)
Property and equipment, net	$ 154,000	$ 226,000

The Company s depreciation expense for the years ended December 31, 2010 and 2009 was $72,000 and $78,000, respectively.

Spherix Incorporated

Notes to Consolidated Financial Statements

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6. Patents and Intangible Assets

The Company s amortization expense for each of the years ended December 31, 2010 and 2009 was $6,000 on patents with an original value of $53,000. The Company s future amortization based on its patents and intangible assets at December 31, 2010 is as follows:

Year	Amortization Expense
2011	$ 2,000

7. Accounts Payable and Accrued Expenses

Accounts payable and accrued expenses consisted of the following at December 31:

	2010	2009
Accounts payable	$ 312,000	$ 961,000
Purchase commitment	600,000	600,000
Deferred Compensation	145,000	140,000
Accrued expenses	154,000	13,000
	$ 1,211,000	$ 1,714,000

8. Stockholders Equity

Registered Direct Offerings

On October 7, 2010, the Company and certain investors entered into a securities purchase agreement, pursuant to which the Company agreed to sell an aggregate of 5,250 shares of its Series B Convertible Preferred Stock and warrants to purchase up to an additional 2,100,000 shares of its common stock to such investors for gross proceeds of approximately $5.25 million. Each share of Series B Convertible Preferred Stock was convertible at the option of the holder, at any time, into 800 shares of common stock based on a conversion price of $1.25 per share of Series B Convertible Preferred Stock. The preferred stock and warrants were sold in units, with each unit consisting of one share of preferred stock and a warrant to purchase 0.5 of a share of common stock. The purchase price per unit was $1,000.00. Subject to certain ownership limitations, the warrants are exercisable at any time on or after the initial date and on or prior to October 6, 2015, but not thereafter, at an exercise price of $1.50

per share. The exercise price of the warrants is subject to adjustment in the case of stock splits, stock dividends, combinations of share and similar recapitalization transactions. The net proceeds to the Company from the October 2010 offering, after deducting placement agent fees and the Company s offering expenses, and excluding the proceeds, if any, from the exercise of the warrants issued in the offering, were approximately $4.9 million. The preferred stock, warrants to purchase common stock (including the placement agent warrants) and shares of common stock issuable upon conversion of the preferred stock and exercise of the warrants were issued pursuant to a prospectus filed with the Securities and Exchange Commission pursuant to a registration statement on Form S-1 (File No. 333-167963), which became effective on October 6, 2010.

In connection with the closing of the October 2010 offering, the Company issued to Rodman & Renshaw, LLC warrants to purchase 126,000 shares of our common stock (at an exercise price of $1.5625 per share). The warrants are exercisable at the option of the holder at any time beginning October 13, 2010 through and including October 13, 2015. These warrants were offered and sold by us in reliance upon exemptions from the registration statement requirements by Section 4(2) of the Securities Act of 1933, as amended, as transactions by an issuer not involving a public offering.

On November 16, 2009, the Company entered into a securities purchase agreement with certain investors to sell an aggregate of 2,760,870 shares of its common stock and warrants to purchase up to an additional 1,104,348 shares of its common stock to such investors for gross proceeds of approximately $6.3 million. The common stock and warrants were sold in units, with each unit consisting of one share of common stock and a warrant to purchase 0.40 of a share of common stock. The purchase price per unit was $ 2.30. Subject to certain ownership limitations, the warrants

Spherix Incorporated

Notes to Consolidated Financial Statements

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are exercisable at any time on or after the initial issue date and on or prior to November 16, 2014, but not thereafter, at an exercise price of $ 3.25. The exercise price of the warrants is subject to adjustment in the case of stock splits, stock dividends, combinations of shares and similar recapitalization transactions. The warrants are classified as equity instruments and are accounted for in additional-paid-in capital.

On November 6, 2009, in connection with the closing of our registered direct offering of convertible preferred stock and warrants to purchase common stock, the Company issued to Rodman & Renshaw, LLC, as partial consideration for its services as placement agent, warrants to purchase up to 82,826 shares of our common stock at an exercise price of $2.875 per share. The warrants are exercisable at the option of the holder at any time beginning on November 16, 2009 through and including November 16, 2011. These warrants were offered and sold by us in reliance upon exemptions from the registration statement requirements by Section 4(2) of the Securities Act of 1933, as amended, as transactions by an issuer not involving a public offering.

The net proceeds to the Company from the registered direct offering, after deducting placement agent fees and the Company s offering expenses, and excluding the proceeds, if any, from the exercise of the warrants issued in the offering, were approximately $6 million.

Restricted Stock

In August 2010 and 2009, the Company issued 6,024 and 5,952 shares of restricted stock as part of an employment agreement. The total fair value of the issuances of the stock was $20,000, which was recognized as compensation expense over a two-year vesting period. The fair value of the stock awards was based on the closing market price on the date of the grant.

In August 2009, the Company issued 26,664 shares of restricted stock with a fair value of $40,000 to its independent Board Members, which was recognized as compensation expense at the time of issue. The fair value of the stock awards was based on the closing market price on the date of grant.

In August 2007, the Company granted 30,000 and 15,000 shares in restricted stock as part of the employment agreements for the Company s Chief Executive Officer and President. The fair value of the stock was $55,800 and $30,000, which was recognized as compensation expense over the respective vesting periods of two and one years.

Stock Option Plan

The Company has an Employees Stock Option Plan (the Plan) which permits issuance of both Incentive Stock Options (ISO) and Non-Qualified Stock Options, whereby options may be granted to officers, Directors and other key employees to purchase up to 1,000,000 shares of common stock in amounts determined by the Compensation Committee of the Board of Directors through December 31, 2010. During 2010, the Company granted 35,088 stock options to the Company s Board of Directors under the Plan. In 2009, no stock options were granted under the Plan. Options issued to employees typically vest over a four-year period and options issued to non-employee directors vested immediately upon being granted. At December 31, 2010, all of the outstanding options under the plan were fully vested.

Spherix Incorporated

Notes to Consolidated Financial Statements

Activity for the two years ended December 31, 2010, for all option grants is shown below:

	2010 Shares	2010 Weighted Average Exercise Price	2009 Shares	2009 Weighted Average Exercise Price
Outstanding at beginning of year	40,500	$ 2.57	40,500	$ 2.57
Granted	35,088	$ 1.14		$
Exercised		$		$
Expired or forfeited	(12,500)	$ 3.41		$
Outstanding at end of year	63,088	$	40,500	$ 2.57
Options exercisable at end of year	63,088		39,750	
Weighted-average fair value of options granted during the year	$		$	
Price range of options				
Outstanding	$ 1.14-$2.20		$ 2.20-$3.41	
Exercised	$		$	
Expired or forfeited	$ 3.41		$	

The following table summarizes information with respect to stock options outstanding at December 31, 2010:

Range of Exercise Price	Number of Options Outstanding at 12/31/10	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life
$ 1.14	35,088	$ 1.14	4.4
$ 2.20	28,000	$ 2.20	0.1
	63,088		

The following table summarizes information with respect to stock options exercisable at December 31, 2010:

Year of Option Expiration	Number of Options	Weighted Average Exercise Price	Price Range
2011	28,000	$ 2.20	$ 2.20

2015	35,088	$	1.14	$	1.14
All Years	63,088				

The Company used the following assumptions in the Black-Scholes calculation used to measure the fair value of stock-based compensation in accordance with ASC 718 for stock options granted in 2010. No stock options were granted in 2009.

	2010
Risk-free interest rate	2.01%
Expected life (years)	4
Volatility	106.1%
Dividend yield	0%

Spherix Incorporated

Notes to Consolidated Financial Statements

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9. Income Taxes

Income tax from continuing operations for 2010 and 2009 was as follows:

	2010	2009
U.S. Federal income tax benefit	$ 118,000	$
State and local income tax benefit	$ 15,000	$
Total income tax benefit	$ 133,000	$

	2010	2009
Current income tax benefit	$ 38,000	$
Deferred income tax benefit	$ 95,000	$
Total income tax benefit	$ 133,000	$

The tax effects of significant temporary differences representing deferred tax assets as of December 31, 2010 and 2009 are as follows:

	2010	2009
Deferred tax assets		
Deferred rent	$ 32,000	$ 43,000
Accrued vacation	33,000	28,000
Tax credit	23,000	82,000
Deferred compensation	274,000	282,000
Net operating loss carryforward	13,912,000	10,941,000
Accrued bonus	165,000	103,000
Stock based compensation	41,000	31,000
Inventory adjustments	426,000	434,000
Accrued expenses	38,000	
Other	27,000	1,000
Total deferred tax asset	14,971,000	11,945,000
Deferred tax liabilities		
Property and equipment	(23,000)	(48,000)
Change in accounting method - accrued bonus	(41,000)	
	(64,000)	(48,000)
Valuation allowance	(14,907,000)	(11,897,000)
Deferred tax asset	$	$

At December 31, 2010 and 2009, the Company had net operating loss carryforwards for U.S. federal income tax purposes of approximately $33.9 million and $26.4 million, respectively, which will begin to expire in 2019. At December 31, 2010 and 2009, the Company had net operating loss carryforwards for state income tax purposes of approximately $44.6 million and $36.3 million, respectively, which will begin to expire in 2018. Based on the Company s historical losses and its accumulated deficit, the Company has provided a full valuation allowance against the net deferred tax asset.

Utilization of the net operating loss carryforwards and credit may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended, and similar state provisions. The Company has not performed a detailed analysis to determine whether an ownership change under Section 382 of the Internal Revenue Code occurred. The effect of an ownership change would be the imposition of an annual limitation on the use of net operating loss carryforwards attributable to periods before the change and could result in a reduction in the total net operating losses and research credits available.

Spherix Incorporated

Notes to Consolidated Financial Statements

Reconciliation between actual tax benefits and taxes computed at the statutory Federal rate of 34 percent for 2010 and 2009 are as follows:

	2010	2009
U.S. Federal income tax benefit at the statutory rate of 34%	$ 2,675,000	$ 3,110,000
Effect of permanent differences	(7,000)	(7,000)
Effect of permanent differences - Government Grant	51,000	
State income taxes benefit, net of federal tax benefit	424,000	494,000
Other		(119,000)
Change in valuation allowance	(3,010,000)	(3,478,000)
Income tax benefit	$ 133,000	$

During 2010, the Company s subsidiary, Biospherics Incorporated, received notice from the IRS that it had been awarded two grants under IRC Section 48D of the Internal Revenue Code s Qualifying Therapeutic Discovery Project. The amount received pursuant to the QTDP Grant was $0.3 million of which $0.1 million related to the income tax benefit associated with the realization or monetization of prior-period tax attributes for which the Company had previously established a valuation allowance.

Tax Uncertainties

The Company recognizes a tax expense associated with an uncertain tax position when, in management s judgment, it is more likely than not that the position will be sustained upon examination by a taxing authority. For a tax position that meets the more-likely-than-not recognition threshold, the Company initially and subsequently measures the tax expense as the largest amount that it judges to have a greater than 50% likelihood of being realized upon ultimate settlement with a taxing authority. The liability associated with unrecognized tax expense is adjusted periodically due to changing circumstances, such as the progress of tax audits, case law developments and new or emerging legislation. The effective tax rate includes the net impact of changes in the liability for unrecognized tax benefits and subsequent adjustments as considered appropriate by management. The Company has not recognized any such adjustments. At December 31, 2010 and 2009, the Company had no material unrecognized income tax expense and recognized no interest or penalties on income tax liabilities.

The Company is subject to U.S. federal income tax and state and local income tax in multiple jurisdictions. The statute of limitations for the consolidated U.S. federal income tax return is closed for all tax years up to and including 2006, except for pre-2006 tax returns that generated net operating loss carry forwards that could be adjusted on audit. During 2009, an IRS audit of tax year 2006 was completed and no adjustments were proposed. Currently, no federal or state and local income tax returns are under examination by the respective taxing authorities.

10. Commitments and Contingencies

Purchase Commitments

During 2009, the Company entered into a purchase commitment with a supplier of the Company s D-Tagatose product. The agreement committed the Company to purchase 25 metric tons of D-Tagatose. The Company utilized the D-Tagatose as a part of the Phase 2 and Phase 3 trials. This phase was necessary for the Company to be able to commercialize the product and as the products were not going to be available for sale, the Company wrote off the entire product value into Research and Development Costs. The amounts written off in 2009 from the agreement were $1.1 million. Of this amount $500,000 was paid in 2009 and the remaining balance of $600,000 is included in the Company s accounts payable and accrued expenses at December 31, 2010 and 2009. On March 16, 2011, both parties signed an agreement whereby Inalco will supply Spherix with 8.5 metric tons of D-tagatose for amounts previously paid for and both parties have agreed to release each other from any other obligations under the previous agreement (See Note 13 Subsequent Events).

Spherix Incorporated

Notes to Consolidated Financial Statements

Leases

The Company has commitments under an operating lease through 2013 relating to its administrative office in Bethesda, Maryland.

Future minimum rental payments required as of December 31, 2010, under the non-cancelable lease are as follows:

Year Ending December 31,	Operating Lease
2011	155,000
2012	159,000
2013	40,000
	$ 354,000

The Company s building lease contains step rent provisions, capital improvement funding, or other tenant allowances. Minimum rental payments including allowances on this lease are recognized on a straight-line basis over the term of the lease. In 2008, lease incentives under the Bethesda facility lease provided for $150,000 of leasehold improvements. The Company incurred net operating lease rental expenses of approximately $140,000 and $165,000 for the years 2010 and 2009, respectively. The operating lease rental expenses for 2009 included office space in Annapolis, Maryland under a lease that ended in June 2009.

Related Party Transactions

Employment, Deferred Compensation, and Consulting Agreements for Principal Stockholders

Under employment agreements with Dr. Gilbert V. Levin and Mrs. M. Karen Levin, the Company s founders, the Company has agreed to provide Dr. and Mrs. Levin each with lifetime payments of $12,500 each quarter and to fund long-term lifetime healthcare and health insurance policies following their retirements from the Company on August 14, 2008 and January 4, 2006, respectively. At December 31, 2010, the Company s liability for both Dr. and Mrs. Levin was estimated to be $450,000 for the lifetime payments and $245,000 for funding the long-term lifetime healthcare and health insurance policies based on actuarially determined amounts. The non-current portion of these amounts is reported on the accompanying balance sheet as deferred compensation. During 2010 and 2009, the Company paid Dr. and Mrs. Levin a combined total of $141,000 and $135,000 in post-retirement benefits (see Note 13, Subsequent Events).

Dr. and Mrs. Levin have agreed to serve as consultants to the Company on an as-needed basis, at a specified daily rate. No consulting payments were made to the Levins during 2010 or 2009.

11. Employee Benefit Plans

The Spherix Incorporated 401(k) Retirement Plan (the Plan) is a discretionary defined contribution plan and covers substantially all employees who have attained the age of 21, have completed one year of service, and have worked a minimum of 1,000 hours in the past Plan or anniversary year.

Under provisions of the Plan, the Company, for any plan year, has contributed an amount equal to 50% of the participant s contribution or 2½% of the participant s eligible compensation, whichever is less. The Company may, at its own discretion, make additional matching contributions to participants. Company contributions, net of forfeitures, amounted to $18,000 and $15,000 in 2010 and 2009, respectively.

12. Information by Business Segment

Operating segments are components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker, or decision-making group, in deciding how to allocate

Spherix Incorporated

Notes to Consolidated Financial Statements

resources and in assessing performance. The Company s principal segments are Biospherics, our biotechnology research and development business, and Health Sciences, a technical and regulatory consulting business.

Financial information by business segment for the years ended December 31, 2010 and 2009 is summarized below:

	Year Ended December 31,	
	2010	2009
Revenues		
Health Sciences	$ 1,417,000	$ 1,350,000
Biospherics	15,000	9,000
Total revenues	$ 1,432,000	$ 1,359,000
Operating Income (Loss) and Loss Before Income Taxes		
Health Sciences	$ 464,000	$ 691,000
Biospherics	(5,659,000)	(7,523,000)
General and administration	(2,816,000)	(2,354,000)
Total operating loss	(8,011,000)	(9,186,000)
Other income	136,000	
Interest income	6,000	37,000
Loss from continuing operations before income taxes	$ (7,869,000)	$ (9,149,000)
Income Tax Benefit		
Health Sciences	$	$
Biospherics	133,000	
Total income tax benefit	$ 133,000	$
Identifiable Assets		
Health Sciences	$ 359,000	$ 274,000
Biospherics	739,000	8,000
General corporate assets	5,919,000	9,873,000
Total assets	$ 7,017,000	$ 10,155,000
Capital Expenditures		
Health Sciences	$	$
Biospherics		
General corporate assets		
Total capital expenditures	$	$
Depreciation and Amortization		
Health Sciences	$	$
Biospherics	6,000	6,000
General corporate assets	72,000	78,000
Total depreciation and amortization	$ 78,000	$ 84,000

Operating income (loss) from continuing operations consists of revenue less operating expenses. In computing operating loss, interest expense and income taxes were not considered. The operating income for the Health Sciences segment was 33% and 51% of that segment s revenue for 2010 and 2009.

Biospherics is dedicated to development of pharmaceuticals. Until June 2010, this development was limited to developing D-tagatose as a novel, first-in-class treatment for Type 2 diabetes. In June 2010, the Company announced that it will actively seek a pharma partner to continue the diabetes development and that it will also explore D-tagatose as a potential treatment for high triglycerides, a risk factor for atherosclerosis, myocardial infarction, and stroke.

Spherix Incorporated

Notes to Consolidated Financial Statements

Identifiable assets by business segment are those assets used in the Company s operations in each segment, such as accounts receivable, inventories, fixed assets, and patent costs. Corporate assets are principally cash and certain other assets not related to a particular segment s operations.

13. Subsequent Events

The Company evaluated all events or transactions after December 31, 2010 through the date the financial statements were issued.

In January 2011, the Company entered into a Letter Agreement with Gilbert V. Levin and M. Karen Levin pursuant to which the Company agreed to make a one time lump sum payment of $450,000 to the Levins in full satisfaction of the Company s obligation to make a series of continuing payments to the Levins relating to their prior employment by the Company. The Company s estimated liability to the Levins at December 31, 2010, and prior to the above agreement, was approximately $695,000. The $450,000 lump sum payment was made on January 31, 2011, and the Company will recognize a gain of $245,000 in January 2011. Per the terms of the agreement, Gilbert V. Levin resigned as a member of the Board of Directors of the Company on January 13, 2011.

On January 14, 2011, Biospherics Incorporated, a wholly-owned subsidiary of the Company, filed a Complaint For Injunction Relief And Damages in The United States District Court For The District Of Maryland against Inalco S.p.A. (the Complaint). The Complaint alleged that Inalco had breached the 2009 Manufacturing Support and Supply Agreement as Inalco (i) refused to supply D-tagatose previously paid for by Biospherics, (ii) refused to provide a promised bank guarantee, and (iii) shut-down its D-tagatose production facilities. On March 16, 2011, both parties signed a settlement agreement whereby Inalco agreed to supply Spherix with 8.5 metric tons of D-tagatose and both parties have agreed to release each other from any other obligations under the previous agreement. As a result, Spherix will recognize a gain of $600,000 in 2011 on the release from its purchase obligation.

In January 2011, the Company obtained net proceeds of approximately $2.6 million in a registered offering. The common stock and common stock which may be issued upon the exercise of warrants issued in the offering have been registered under a Form S-3 registration statement declared effective by the Securities and Exchange Commission (SEC) in October 2009.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

Inherent Limitations on the Effectiveness of Controls

Management, including our Chief Executive Officer and Chief Financial Officer, do not expect that our disclosure controls and procedures will prevent all errors and fraud. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable, not absolute, assurance of achieving the desired control objectives. Further, the design of a control system must reflect the fact that there are resource constraints, and management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management s override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because

Spherix Incorporated

Notes to Consolidated Financial Statements

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of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports, such as this report on Form 10-Q, is recorded, processed, summarized and reported within the time periods specified in the SEC s rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. These controls and procedures are based closely on the definition of disclosure controls and procedures in Rule 13a-15(e) promulgated under the Exchange Act. Rules adopted by the SEC require that we present the conclusions of the Chief Executive Officer and Chief Financial Officer about the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report.

The Company carried out an evaluation, under the supervision and with the participation of the Company s management, including the Company s Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company s disclosure controls and procedures to provide reasonable assurance of achieving their objective pursuant to Exchange Act Rule 13a-14. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company s disclosure controls and procedures are effective at a reasonable assurance level, as of December 31, 2010. This report does not include an attestation of our independent registered public accounting firm regarding internal control over financial reporting. Management s report is not subject to attestation by our independent registered public accounting firm pursuant to the rules of the SEC for smaller reporting companies.

Management s Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework set forth in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our evaluation, management has concluded that its internal control over financial reporting was effective as of December 31, 2010.

This Annual Report does not include an attestation report of the Company s registered public accounting firm regarding internal control over financial reporting. Management s report was not subject to attestation by the Company s registered public accounting firm pursuant to temporary rules of the Securities and Exchange Commission that permit the Company to provide only management s report in this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

There were no changes in the Company s internal control over financial reporting during the period covered by this report that have materially affected, or are reasonably likely to materially affect, the Company s internal control over financial reporting.

Item 9B. OTHER INFORMATION

None.

Spherix Incorporated

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The following table sets forth the Spherix Board of Directors.

Name	Age	Position	Director Since
Douglas T. Brown	57	Director	2004
Claire L. Kruger	52	Director, and Chief Executive Officer	2007
Robert A. Lodder, Jr.	51	Director, and President	2005
Aris Melissaratos	67	Director	2008
Thomas B. Peter	57	Director	2009
Robert J. Vander Zanden	65	Director, and Chairman of the Board	2004

Mr. Douglas T. Brown, a Board Member since 2004, is Senior Vice President and Manager of the Corporate Banking Government Contracting Group for PNC Bank N.A., Washington, DC. Mr. Brown has been with PNC and its predecessor bank, Riggs Bank, since 2001 and previously worked for Bank of America, N.A. and its predecessor banks for 16 years as a Loan Officer, as well as a manager of Loan Officers in the Mid-Atlantic region. Subsequent to 1990, the majority of Mr. Brown s customers are companies that provide services to the Federal Government and State governments. Mr. Brown holds a B.A. degree in Political Science from American University and a graduate degree from The Stonier Graduate School of Banking at the University of Delaware. He is not now, nor has he been for the past five years, a director of a public, for-profit company other than Spherix.

Dr. Claire L. Kruger was elected to the Spherix Incorporated Board of Directors in August 2007, and was also elected Chief Executive Officer and Director of Health Sciences at that time. Dr. Kruger received her Ph.D. in Toxicology from Albany Medical College, and her B.S. in Biology from Clarkson College. With more than 20 years of consulting experience, her primary areas of expertise are in foods, consumer products and pharmaceuticals, where she provides scientific, regulatory, and strategic support to clients in both the US and international regulatory arenas. Dr. Kruger has conducted toxicity evaluations of foods and food contaminants, as well as health risk assessments and exposure assessments of drugs, cosmetics, and pesticides. Her clients include food, drug, and dietary supplement manufacturers, agricultural producers, biotechnology companies, trade associations, and law firms. In her role as a consultant, Dr. Kruger has been involved in the safety evaluation of a variety of consumer products, providing oversight of product compliance with current and emerging scientific and regulatory guidance. She is not now, nor has she been for the past five years, a director of a public, for-profit company other than Spherix.

Dr. Robert A. Lodder, Spherix Incorporated Board Member since 2005, was elected President in August 2007. He served as a Professor of Pharmaceutical Sciences at the College of Pharmacy, University of Kentucky Medical Center, and holds joint appointments in the Department of Electrical and Computer Engineering and the Division of Analytical Chemistry of the Department of Chemistry at Kentucky. Dr. Lodder received his B.S. degree cum laude in Natural Science in 1981, and his M.S. in Chemistry in 1983 from Xavier University, Cincinnati, Ohio. He received his Ph.D. in Analytical Chemistry in 1988 from Indiana University. He was a founder of InfraReDx, Inc. in 1998 and Prescient Medical, Inc. in 2004. Neither of these companies are public, and they do not engage in business with Spherix. He is not now, nor has he been

for the past five years, a director of a public, for-profit company other than Spherix.

Mr. Aris Melissaratos was elected to the Spherix Board of Directors in February 2008. He currently serves as Senior Advisor to the President of The Johns Hopkins University with responsibilities for technology transfer, corporate partnerships, and enterprise development. From 2003 to 2007, he served as Secretary of Business and Economic Development for the State of Maryland, driving the state s unemployment figures to an impressive 3.6% and positioning Maryland for leadership in the emerging knowledge economy. He worked for Westinghouse Electric Corporation for 32 years, culminating as the corporation s Chief Technology Officer and Vice President for Science and Technology, responsible for running Westinghouse s research and development functions. He also served as the Chief Operations Officer for the company s Defense Electronics Group, where he was responsible for managing 16,000 employees (9,000 engineers) and $3.2 billion dollars of sales. After Westinghouse, he became Vice President of

Thermo Electron Corporation and CEO of its Coleman Research Corporation and Thermo Information Solutions subsidiaries. He formed Armel Scientifics, LLC, which invested in over 30 start-up companies in Life Sciences and Advanced Technology. He holds a B.E.S. in electrical engineering from The Johns Hopkins University, a Master of Science in engineering management from George Washington University, and has completed the program for Management Development at the Harvard University School of Business. He completed the course work for a Ph.D. in International Politics at the Catholic University of America but did not complete the dissertation. Mr. Melissaratos currently serves as a member of the Board of Directors of Avatech Solutions, Inc. in Owings Mills, MD, a software and technology firm; and as a member of the Advisory Board of Stronghold Advisors, a middle-market advisory firm in the Mid-Atlantic region, in Columbia, MD. Neither of these companies engage in business with Spherix.

Mr. Thomas B. Peter was elected to the Spherix Board of Directors in May 2009. He spent his entire 33-year career in the pharmaceutical industry. Most recently he served as a Regional Vice President for GlaxoSmithKline (GSK). Prior to that, Mr. Peter had significant experience dealing with managed care organizations, serving as Director of National Accounts Sales at GSK, and before that position, worked as a Group Marketing Director. Mr. Peter is a biology major graduate of Gettysburg College and a Master s graduate of St. Joseph s University in Philadelphia. He is not now, nor has he been for the past five years, a director of a public, for-profit company other than Spherix.

Dr. Robert J. Vander Zanden, Board Member since 2004, was elected Chairman of the Board in 2009. Having served as a Vice President of R&D with Kraft Foods International, he brings a long and distinguished career in applied technology, product commercialization, and business knowledge of the food science industry to Spherix. Dr. Vander Zanden holds a Ph.D. in Food Science and an M.S. in Inorganic Chemistry from Kansas State University, and a B.S. in Chemistry from the University of Wisconsin Platteville, where he was named a Distinguished Alumnus in 2002. In his 30-year career, he has been with ITT Continental Baking Company as a Product Development Scientist; with Ralston Purina s Protein Technology Division as Manager Dietary Foods R&D; with Keebler as Group Director, Product and Process Development (with responsibility for all corporate R&D and quality); with Grupo Gamesa, a Frito-Lay Company, as Vice President, Technology; and with Nabisco as Vice President of R&D for their International Division. With the acquisition of Nabisco by Kraft Foods, he became the Vice President of R&D for Kraft s Latin American Division. Dr. Vander Zanden retired from Kraft Foods in 2004. He currently holds the title of Adjunct Professor and Lecturer in the Department of Food Science and Human Nutrition at Clemson University, where he also is a member of their Industry Advisory Board. His focus on achieving product and process innovation through training, team building and creating positive working environments has resulted in his being recognized with many awards for product and packaging innovation. Dr. Vander Zanden is not now, nor has he been for the past five years, a director of a public, for-profit company other than Spherix.

Corporate Governance

The Audit Committee members are Mr. Brown, Chair; Mr. Melissaratos, and Dr. Vander Zanden. The Audit Committee Charter is available on the Company s website at www.spherix.com. Each member of the Audit Committee satisfies the independence requirements and other established criteria of NASDAQ and the Securities and Exchange Commission. The Board of Directors believes that, while the members of its Audit Committee have substantial financial and management experience and are fully qualified to carry out the functions of the Audit Committee, none of its members meets the requirements of an audit committee financial expert as defined in the Securities and Exchange Commission rules.

Executive Officers

The Executive Officers of the Company are elected annually by the Board of Directors and are listed in the following table.

Name	Age	Position
Robert L. Clayton	47	CFO and Treasurer
Claire L. Kruger	52	Chief Executive Officer and Chief Operating Officer
Robert A. Lodder	51	President

Drs. Kruger and Lodder s professional experience are discussed above.

Mr. Robert L. Clayton was elected to the Office of CFO and Treasurer in November 2009. He previously served as Interim CFO, Director of Finance, and Controller. Prior to joining Spherix, he was a Senior Auditor for the Public Accounting Firm Rubino & McGeehin Chartered. Mr. Clayton holds a B.S. in business and management from the University of Maryland and a C.P.A. from the District of Columbia. He is not now, nor has he been for the past five years, a director of a public, for-profit company other than Spherix.

Compliance with Section 16(a) of the Exchange Act

Section 16(a) Beneficial Ownership Regarding Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended (the Exchange Act), requires the Company s Directors and Executive Officers, and anyone who beneficially owns ten percent (10%) or more of the Company s common stock, to file with the Securities and Exchange Commission initial reports of beneficial ownership and reports of changes in beneficial ownership of common stock. Such persons are required by regulations of the Securities and Exchange Commission to furnish the Company with copies of all Section 16(a) forms they file.

Based solely upon a review of (i) copies of the Section 16(a) filings received by the Company during or with respect to 2010 and (ii) certain written representations of its Officers and Directors, the Company believes that each filing required to be made pursuant to Section 16(a) of the Exchange Act during and with respect to 2010 and 2011 to date was filed in a timely manner.

Code of Ethics

The Company has adopted a worldwide Code of Ethics, which is available on the Company s website at www.spherix.com.

EXECUTIVE COMPENSATION

We strive to pay our named executive officers at or near the median paid by comparable companies. In 2007, the Compensation Committee hired an outside company, Equilar, Inc., to compare the total compensation of our executives to the total compensation of fourteen (14) companies identified by Equilar, Inc. to be peer companies to us. The Equilar Report on Executive Compensation showed that our executives are not compensated at the same level as colleagues in peer companies. Based upon our fiscal health, however, it has been determined by the Compensation Committee that no special efforts should be made to bring executive total compensation to equivalent levels of those in peer companies. The Compensation Committee recommended to the Board the salary adjustments for our executive officers. In 2010, the Board approved annual salaries for Dr. Kruger, Dr. Lodder and Mr. Clayton of $270,000, $220,000 and $200,000, respectively. For 2011, the Board approved annual salaries for Dr. Kruger, Dr. Lodder and Mr. Clayton of $278,100, $226,600 and $206,000, respectively.

The following Summary of Compensation table sets forth the compensation paid by the Company during the two years ended December 31, 2010, to all Executive Officers earning in excess of $100,000 during any year.

Summary of Compensation

Name and Principal Position	Year	Salary ($)	Bonus ($)	Stock Award ($)(1)	Option Award ($)(2)	Non-Equity Incentive Plan Compensation ($)(3)	Change in Pension Value and Non-Qualified Deferred Compensation Earnings ($)	All Other Compensation ($)	Total ($)
C. Kruger	2010	270,000				135,000			405,000
CEO and COO	2009	190,000		10,850		95,000			295,850
R. Lodder	2010	220,000				88,000			308,000
President	2009	170,000				59,500			229,500
R. Clayton	2010	200,000			118	70,000			270,118
CFO and Treasurer	2009	228,031			940				228,971

(1) On August 1, 2007, C. Kruger was granted 30,000 shares in restricted stock with a market price on the date of grant of $1.86. The restricted stock vested in equal amounts of 10,000 shares on August 1, 2007, August 1, 2008 and August 1, 2009. On August 16, 2007, R. Lodder was granted 15,000 shares in restricted stock with a market price of the date of grant of $2.00. The restricted stock vested in equal amounts of 7,500 shares on March 1, 2008 and September 1, 2008.

(2) On February 17, 2006, R. Clayton was granted stock options for 2,000 shares. Information regarding forfeiture and assumptions made in the valuation are disclosed in Note 8 of the Company s Annual Financial Statements (incorporated by reference to Form 10-K dated December 31, 2010).

(3) Awards pursuant to the May 12, 2005 Spherix Incorporated Incentive Compensation Plan.

Outstanding Equity Awards at Fiscal Year-End

	Option Awards				Stock Awards	
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock that have not Vested (#)	Market Value of Shares or Units of Stock that have not Vested ($)
C. Kruger						
R. Lodder						
R. Clayton	2,000		$ 2.20	2/15/2011		

Potential Payment Upon Termination or Change in Control

We have agreed to pay our officers one year salary and health and welfare (COBRA) benefits upon termination by us or following a change of control.

Unless otherwise agreed by the Board of Directors, the other staff members would be entitled to severance upon termination of employment pursuant to the Company s severance policy. The policy provides:

Completed Service Years	**Severance Pay**
> 1 year	10 days
1 but less than 2 years	15 days
2 but less than 3 years	20 days
3 but less than 4 years	25 days
4 or more years	30 days

Director Compensation

The following table summarizes the compensation paid to non-employee directors during the year ended December 31, 2010.

Name	Fees Earned Paid in Cash ($)	Options ($)	All Other Compensation ($)	Total ($)
Douglas T. Brown	24,000	7,193		31,193
Gilbert V. Levin			*	*
Aris Melissaratos	24,600	7,193		31,793
Thomas B. Peter	16,556	7,193		23,749
Robert J. Vander Zanden	30,800	7,193		37,993

* Under employment agreements with Dr. Gilbert V. Levin and Mrs. M. Karen Levin, our founders, we have agreed to provide Dr. and Mrs. Levin each with lifetime payments of $12,500 each quarter and to fund long-term lifetime healthcare and health insurance policies following their retirements on August 14, 2008 and January 4, 2006, respectively. At December 31, 2010, our liability for both Dr. and Mrs. Levin was estimated to be $450,000 for the lifetime payments and $245,000 for funding the long-term lifetime healthcare and health insurance policies based on actuarially determined amounts. During 2010, we paid Dr. and Mrs. Levin a combined total of $140,000 in post-retirement benefits. In January 2011, the Company entered into a Letter Agreement with Dr. and Mrs. Levin pursuant to which the Company agreed to make a one time lump sum payment of $450,000 to the Levins in full satisfaction of the Company s obligation to make a series of continuing payments to the Levins relating to their prior employment by the Company. Per the terms of the agreement, Gilbert V. Levin resigned as a member of the Board of Directors of the Company on January 13, 2011.

Non-employee directors receive the following annual compensation for service as a member of the Board:

Annual Retainer	$ 5,000	To be paid in cash at May Board Meeting annually.
Stock Options	$ 10,000	To be calculated by dividing $10,000 by the closing stock price the day the Stock Options are awarded; and at the May Board Meeting annually thereafter. The Options will vest in full on the day of award and will be exercisable for a period of five (5) years.
Board Meeting Fees	$ 2,500	To be paid for all in-person Board Meetings. Members must be present to be paid.
Committee Meeting Fees	$ 800	To be paid for all in-person Committee Meetings. Members must be present to be paid.
Teleconference Fees	$ 300	To be paid for all teleconferences called by either the Chairman of the Board, the President, or by the Chairman of the relevant Committee. Members must be on-line to be paid.
Additional Retainer	$ 1,000	To be paid to the Chairman of the Audit Committee.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT, AND RELATED STOCKHOLDERS

The following table sets forth the shares of Common Stock beneficially owned by all Executive Officers and Directors as a group as of March 18, 2011.

Beneficial Ownership of Common Stock by Executive Officers and Directors

Title of Class	Name of Beneficial Owner	Amount and Nature of Ownership	Percent Of Class
Common	Douglas T. Brown	47,590(1)	*
Common	Robert L. Clayton	(1)	*
Common	Claire L. Kruger	30,000(1)	*
Common	Robert A. Lodder, Jr.	22,852(1)	*
Common	Aris Melissaratos	25,053(1)	*
Common	Thomas B. Peter	15,438(1)	*
Common	Robert J. Vander Zanden	38,590(1)	*
Common	All Executive Officers and Directors as a Group	179,523(1)	0.7%

* Less than 1% of the outstanding shares of our Common Stock.

(1) Included in the number of shares beneficially owned by D.T. Brown, R.L. Clayton, C.L. Kruger, R.A. Lodder, A. Melissaratos, T.B. Peter, R.J. Vander Zanden and All Executive Officers and Directors as a Group are 8,772, 0, 0, 0, 8,772, 8,772, 8,772 and 35,088 shares, respectively, which such persons have a right to acquire within 60 days pursuant to stock options.

As of March 18, 2011, Dr. Gilbert V. Levin, 3170 S. Ocean Boulevard, #602S, Palm Beach, FL 33480, beneficially owned in the aggregate 2,364,107 shares of Common Stock (9.2% of the 25,624,872 outstanding shares). As principal stockholders, Dr. Levin and his wife are considered control persons with respect to us.

All directors and executive officers as a group, beneficial owners of 196,523 shares of Common Stock, owned 0.8% of the 25,624,872 outstanding shares. With the exception of Cede & Co., the holder of record for certain brokerage firms and banks, no other person is known by us to own beneficially more than 5% of our outstanding Common Stock.

In December 2010, the Company and American Stock Transfer and Trust Company, LLC, as Rights Agent, entered into a First Amendment to Rights Agreement to amend the Rights Agreement dated as of February 16, 2001 between the Company and the Rights Agent. The Amendment extends the term of the Rights Agreement. The Rights Agreement was scheduled to expire on December 31, 2010. The Amendment extends the term of the Rights Agreement through December 31, 2012.

The Rights Agreement provides each Stockholder of record a dividend distribution of one right for each outstanding share of the Company s Common Stock. Rights become exercisable at the earlier of ten days following: (1) a public announcement that an acquirer has purchased or has the right to acquire 10% or more of the Company s Common Stock, or (2) the commencement of a tender offer which would result in an offeror beneficially owning 10% or more of the outstanding Common Stock of the Company. All rights held by an acquirer or offeror expire on the announced acquisition date, and all rights expire at the close of business on December 31, 2012. Each right entitles a Stockholder to acquire, at a stated purchase price, 1/100 of a share of the Company s preferred stock, which carries voting and dividend rights similar to one share of its Common Stock. Alternatively, a right holder may elect to purchase for the stated price an equivalent number of shares of the Company s Common Stock at a price per share equal to one-half of the average market price for a specified period. In lieu of the stated purchase price, a right holder may elect to acquire one-half of the Common Stock available under the second option. The purchase price of the preferred stock fractional amount is subject to adjustment for certain events as described in the Agreement. At the discretion of a majority of the Board and within a specified time period, the Company may redeem all of the rights at a price of $0.001 per right. The Board may also amend any provisions of the Agreement prior to exercise.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The current Board of Directors consists of Mr. Douglas T. Brown, Dr. Claire L. Kruger, Dr. Robert A. Lodder, Jr., Mr. Aris Melissaratos, Mr. Thomas P. Peter, and Dr. Robert J. Vander Zanden. The Board of Directors has determined that a majority of its members, being Messrs. Brown, Melissaratos, Peter, and Vander Zanden, are independent Directors within the meaning of the applicable NASDAQ rules. The Company s Audit, Compensation, and Nominating Committees consist solely of independent Directors.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Grant Thornton LLP for Fiscal 2010

The following table sets forth the fees paid by the Company to Grant Thornton LLP for audit and other services provided in 2010 and 2009:

		2010		2009
Audit fees	$	130,000	$	133,000
Audit related fees		16,000		7,000
Tax fees				
Total	$	146,000	$	140,000

The Audit Committee considered whether the provision of services referenced above is compatible with maintaining Grant Thornton s independence. The Audit Committee s policy is to pre-approve all audit and permissible non-audit services provided by the independent auditors. These services may include audit services, audit-related services, tax services and other services. Pre-approval is generally provided for up to one year. The Audit Committee may also pre-approve particular services on a case-by-case basis.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENTS, SCHEDULES

(a) Exhibits

3.1 Certificate of Incorporation and Bylaws of the Company (incorporated by reference to the Company s Annual Proxy Statement for meeting held on May 15, 1992, as filed with the Commission)

3.2 Articles of Amendment of the Company (incorporated by reference to the Company s Proxy Statement for its May 1996, May 2000, and May 2001 annual meetings, as filed with the Commission)