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, 2009

[ ] 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 [ ] 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 [ ] 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 [ ]

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 [ ] No [ ]

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

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company (as defined in Rule 12b-2 of the Exchange Act).
Large Accelerated Filer [ ] Accelerated Filer [ ] Non-accelerated Filer [ ] 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 [ ] 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) – $17,020,921

There were 17,150,648 shares of the Registrant's Common Stock outstanding as of March 29, 2010.

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. See the Company's Form 8-K filed October 10, 2007, for a more detailed statement concerning forward looking statements.

Item 1. DESCRIPTION OF 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 Health Sciences segment was created in July 2007 when Claire L. Kruger, CEO and COO, joined the Company in advance of the anticipated sale of the Company's wholly-owned subsidiary, InfoSpherix Incorporated. InfoSpherix was the Company's information services segment and was sold on August 15, 2007 in a move to allow the Company to devote its resources to the activities of the Biospherics segment.

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 a single proprietary product, D-tagatose, as a novel, first-in-class treatment for Type 2 diabetes. D-tagatose is believed to depress elevations of blood sugar levels in diabetic patients by increasing glycogen synthesis while decreasing glycogen utilization, resulting in an improvement of blood sugar control and modulation of HbA1c.

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. It is a true sugar that looks, feels, and tastes like table sugar. During human safety studies supporting food use, the Company discovered and patented a number of health and medical uses for D-tagatose. The Company holds the patents for use of D-tagatose as a treatment for Type 2 diabetes. 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, the Company believes it will be eligible for a five year

New Chemical Entity (“NCE”) exclusivity period following FDA approval. Similar legislation in Europe could provide seven years of market exclusivity in the European Union, if approved by the European Medicines Agency (EMA).

As set forth below, this product is in the development stage and will require substantial additional investment to bring it to market. The Company intends to continue to develop D-tagatose and simultaneously search for a sale, license, partner, or other strategic alliance to take D-tagatose through the FDA approval process and to bring D-tagatose to market. We are hopeful that as we proceed with our development efforts, incremental successes may afford us the opportunity to achieve such a strategic alliance.

In initial human clinical trials conducted at the University of Maryland School of Medicine in 1996 D-tagatose was found to be effective as a treatment of Type 2 diabetes. In addition to lowering HbA1c, over the one-year trial, all eight (8) subjects lost weight at physician-approved rates. As a result, in late 2005, the FDA provided the Company permission to begin a Phase 3 clinical trial for D-tagatose as a stand-alone drug to treat Type 2 diabetes.

The Company is conducting two clinical trials: a Phase 3 trial to determine efficacy of D-tagatose as a treatment for Type 2 diabetes; and a Phase 2 Dose Range trial to evaluate the effectiveness of lower doses of D-tagatose in treating Type 2 diabetes. Enrollment for the Phase 3 trial was completed in January 2010. The Dose Range trial and the efficacy portion of the Phase 3 trial are expected to be completed in mid- to late-2010, and the safety portion of the Phase 3 trial is expected to be completed in early 2011. The primary endpoint in each study is a statistically significant decrease in HbA1c levels. HbA1c is a key indicator that measures glycated hemoglobin in the blood and is a measure of long-term control of blood glucose. The secondary endpoints are measurements of fasting blood glucose, insulin, lipid profiles, changes in body weight, and the proportion of subjects achieving HbA1c targets under 7% and/or under 6.5%.

The ongoing double-blind, placebo-controlled Phase 3 trial is designed to evaluate the safety and efficacy of D-tagatose over the dosing period. The study is currently underway at clinical research sites in the USA and India, and seeks to complete 332 patients. The study is powered to detect a 0.5% change in HbA1c. The primary efficacy analysis will compare the change in HbA1c in patients receiving D-tagatose versus a placebo.

Results of the blinded interim data analysis of the Phase 3 trial demonstrate a significant reduction in variability of HbA1c levels, the primary endpoint of the trial. The analysis was conducted by an independent statistics and regulatory consulting firm. The results suggest the study is powered sufficiently and the planned sample size may be adequate to detect a statistically significant effect in reduction of HbA1c. The observed data to-date indicate the change in variability of HbA1c from baseline is favorable, and suggest that the current sample size gives the study sufficient power to achieve the statistical significance if and when the study reaches the planned number of patients completing treatment. The results also demonstrate a significant decrease in the mean body mass index (BMI) at all time points. The mean BMI and serum triglycerides decreased monotonically at each visit, while the relationship between LDL or HDL cholesterol and visit number was non-monotonic. Taken together, the results of these secondary variables are in agreement with that of the HbA1c results. The interim analysis is a blinded analysis and there is no statistical penalty.

In addition to the power calculation, a summary of HbA1c "responders" (i.e., subjects achieving HbA1c target of <6.5%) was in the interim analysis report. NIH Medline Plus states that, in general, an HbA1c of 6% or less is normal, and diabetic patients should try to keep their HbA1c level at or below 7%. The Phase 3 protocol sets an HbA1c lower limit of 6.6% for randomization into the trial, and an upper limit of 9%. At the time of the interim analysis, not all subjects had finished the entire treatment course of this trial; therefore the number of responders was different for different months of therapy. The incidences of responders achieving an HbA1c target of <6.5% at 1, 2, 4 and 6 months of treatment were 4%, 13%, 19% and 18% respectively. Because the trial is randomized 1:1 in terms of drug and placebo, approximately 50% of the patients receive the placebo treatment.

In addition, preliminary data from the Phase 2 Dose Range study demonstrates reductions of HbA1c levels at doses lower than those used in the current Phase 3 trial. The doses being tested are: 2.5, 5.0, and 7.5 g, which are administered orally with meals, three times daily. After 6 months on drug, patients in the 7.5 g group experienced an average reduction of 0.3% in HbA1c over those of the HbA1c of the 2.5 g group. Over the same period, the 5.0 g group averaged a reduction in HbA1c of 0.05% over those from the 2.5 g group. D-tagatose appears to begin showing an effect on HbA1c within the range of doses selected for this minimum-dose study. The ongoing Phase 3 efficacy study is being conducted at a 15 g dose, three times a day.

Over the course of the Dose Range study, D-tagatose also changed the average serum triglycerides of the patients by -59 mg/dl by the end of the first month on therapy, a decrease from baseline that remained at -41 mg/dl by the end of the 6 months of the trial. D-tagatose also changed serum LDL by an average -13 mg/dl by the end of the first month on therapy, while serum HDL was essentially unchanged (+0.9 mg/dl). The LDL:HDL ratio was improved for two of the three dose groups by an average of 0.3.

D-tagatose's safety in humans was established in 2001 when it received the designation as Generally Recognized As Safe ("GRAS") in foods by the FDA. The Phase 3 and Dose Range trials have provided further support that D-tagatose is safe and well tolerated, with acceptable rates of treatment-related events noted at all doses. The most common adverse events reported in the Phase 3 study and the Dose Range study were gastrointestinal related and were generally mild and predominantly transient in nature. Previous studies have indicated that D-tagatose does not stimulate insulin secretion.

Since receiving FDA permission to begin the Phase 3 clinical trial, Biospherics's research and development (R&D) activity has been focused primarily on planning, instituting, and running the Phase 3 trial. The trial is being guided by the Company's CEO, Claire L. Kruger, an experienced FDA regulatory consultant, and the Company's President, Robert A. Lodder, an experienced professor of pharmaceutical sciences, as well as drawing on the in-house support and expertise of the staff of the Company's Health Sciences segment. Based on current enrollment and retention numbers, the Company expects that the efficacy portion of the Phase 3 trial and the Dose Range trial will be completed in mid- to late-2010, and that the safety portion of the Phase 3 trial will be completed in early 2011, and that the New Drug Application ("NDA") could be filed as early as mid-2011. The FDA review process typically takes between one and two years to complete. Approval of an NDA is at the discretion of the FDA; in some instances the FDA requires additional studies before final processing of an application.

The Company expects to incur substantial development costs, without substantial corresponding revenue. The Company intends to finance its development activities through the remaining proceeds received from the 2007 sale of InfoSpherix and the November 2009 stock placement, as well as additional funds it may seek to raise through the sale of additional stock.

Administration of the Phase 3 and Dose Range Trials

The trials were initially commenced in both Australia and in the United States. In 2007, the Company terminated the Australian operations and expanded the United States portion of the trial. However, patient recruitment in the U.S. proceeded slower than expected. To enhance enrollment and retention, the Company successfully petitioned the FDA to eliminate the need for pre-mixed liquid solutions for the delivery of study medicine. The solutions were replaced with powder sachets, which are more convenient for the trial participants, and therefore improved patient retention. Beginning in October 2008, Biospherics also started conducting a portion of the Phase 3 and Dose Range trials in India where patient retention is greater than in the U.S. These changes have been successful in enhancing recruitment and compliance in the trials. Enrollment for the Phase 3 trial was completed in January 2010 and the Company expects that the Phase 2 Dose Range trial and the efficacy portion of the Phase 3 trial will likely be completed in mid- to late-2010, based on the current enrollment and retention numbers, and that the safety portion of the Phase 3 trial will likely be completed in early 2011.

Manufacturing

Biospherics does not own or operate its own manufacturing facilities. Spherix 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 manufacture of D-tagatose. In 2009, the Company's Biospherics subsidiary signed a Supply Agreement with Inalco, S.p.A., a manufacturer capable of providing the Company with batches of pharmaceutical grade D-tagatose for submission to the Drug Master File ("DMF") in support of the planned New Drug Application ("NDA") submission. Biospherics is now using both Inalco and Arla D-tagatose in the Phase 3 trial in an effort to satisfy one of the FDA's requirements. Successfully bridging the drug from each source is a critical step in achieving FDA approval.

Market Development

In response to the interim Phase 3 results and the preliminary Dose Range preliminary results, management has taken steps to significantly increase its commercialization efforts for D-tagatose. The Company has formed a Medical Advisory Board and has contracted with consulting firms to analyze the competitive situation in the diabetes market and

generate forecasts to allow Biospherics to evaluate market segment opportunities and the impact of Medicaid, government initiatives, and third party payers on the diabetes therapeutic category. Primary market research is being conducted to evaluate the impact of formulation types, size and packaging on sales in the diabetes therapeutic category.

Plan for Commercialization of D-tagatose

The Company does not have the resources to prepare, submit and pursue the FDA NDA and if approved, to manufacture and market D-tagatose as a Type 2 diabetes drug. The Company is therefore applying its resources to continue the Phase 3 and Dose Range trials and to explore the manufacturing and marketing issues with a goal to market, sell and/or license D-tagatose to a pharmaceutical or other company which would complete the commercialization. To date, the Company has not had, and does not expect to have, any meaningful offers until the efficacy of D-tagatose has been demonstrated further.

The total cost of completing the Phase 3 trial is difficult to determine and can be affected by a number of factors, including completion of the trials in a timely manner. Continued progress on the clinical trial of D-tagatose as a treatment of Type 2 diabetes and on the other initiatives described above is dependent upon many factors including, but not limited to, the Company raising sufficient funds.

Food and Beverage Use

In 1997, and through a subsequent amendment, the world-wide right to sell D-tagatose for food and beverage uses, and the right to manufacture D-tagatose for all uses, was licensed to Arla (formerly MD Foods Ingredients amba, "MDFI") of Denmark. Arla has not been successful in generating any substantial market for D-tagatose, Arla has ceased manufacturing D-tagatose, and the Company has received no meaningful royalties from Arla under the license agreement.

Biospherics revenue from miscellaneous royalties accounted for 1% of the Company's total revenue from continuing operations in 2009.

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

Health Sciences

In July 2007, the Company entered into the Health Sciences business when Claire L. Kruger, CEO and COO, joined the Company in advance of the anticipated sale of the Company's wholly-owned subsidiary, InfoSpherix Incorporated. 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.

During 2009 and 2008, Health Sciences provided services to 12 and 16 companies, respectively. The Company generally provides its 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 the regulatory services of the Company.

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 Phase 3 clinical trial of D-tagatose for Biospherics.

Health Sciences revenue accounted for 99% of the Company's total revenue in each of 2009 and 2008.

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 2009 and 2008, 99% of the Company's revenue was generated from the Health Sciences business. Revenue from five customers accounted for 19%, 16%, 14%, 12% and 11% in 2009, and three customers accounted for 38%, 14% and 14% of the Company's revenue in 2008. No other single customer accounted for 10 percent or more of consolidated revenue. The loss of any of these customers could have a material effect on the Company taken as a whole if not replaced.

Patents and Trademarks

The Company has established a worldwide patent position for D-tagatose. These patents are detailed in the following table:

Patent No.	Patent Title	Issue Date	Expiration Date
Canada 2,077,257	Process for Manufacturing D-Tagatose	2/19/02	1/7/11
Finland 106861	Process for Manufacturing D-Tagatose	4/30/01	1/7/11
Japan 3,120,403	Process for Manufacturing D-Tagatose	10/20/00	1/7/11
Korea 190671	Process for Manufacturing D-Tagatose	1/21/99	1/7/11
EPO 0 518 874	Process for Manufacturing D-Tagatose	5/15/96	1/7/11
U.S. 5,447,917	D-Tagatose as Anti-Hyperglycemic Agent	9/5/95	9/5/12
U.S, 5,356,879	D-Tagatose an Anti-Hyperglycemic Agent	10/18/94	2/14/12
Canada 1,321,730	D-Tagatose as a Low-Calorie Carbohydrate Sweetener and Bulking Agent	8/31/93	8/31/10

The Company believes that those patents related to the use of D-tagatose as an anti-diabetes treatment may be eligible for a five year NCD exclusivity period following FDA approval.

Trademarks. The Company has trademarked each of "Spherix" and "Biospherics."

With respect to all of its inventions, the Company has received numerous patents, including foreign issues. In addition to its patent position, the Company relies on the common law protection of such information as trade secrets and on confidentiality agreements to protect the value of these assets.

Sales Backlog

The Company's backlog as of December 31, 2009 and 2008 from the Health Sciences business was approximately $770,000 and $1.2 million, 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.

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. The Company's competitors may succeed in developing technologies and products that are more effective than any that are being developed by the Company, and that could render the Company's technology and potential products obsolete and noncompetitive. Many of these competitors have substantially greater financial and technical resources and production and marketing capabilities than the Company. If approved, the Company's major competitor as a monotherapy in the treatment of Type 2 diabetes will be Metformin.

Health Sciences

Competitors of Health Sciences are numerous, including some that are much larger companies with greater 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 $6.2 million and $4.0 million in 2009 and 2008, respectively. These expenditures were incurred in the ongoing efforts to commercialize D-tagatose.

In December 2009, the Company entered into a Manufacturing Support and Supply Agreement with Inalco S.p.A of Italy. Under the agreement the Company committed to the purchase of 25 metric tons of D-tagatose. The entire purchase commitment of $1,100,000 was booked as an expense in 2009. Of this amount $500,000 was paid in 2009, with the remaining balance payable in 2010. An additional $300,000 of D-tagatose, separate from the above Manufacturing Support and Supply Agreement, was also purchased in 2009 from Inalco.

Governmental Regulation

The business activities of the Company are subject to a variety of Federal and state compliance, licensing, and certification requirements. Products such as D-tagatose may not be commercially marketed 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. As we are now using Inalco manufactured D-tagatose instead of Arla manufactured D-tagatose which was used at the beginning of the Phase 3 trial, we will need to demonstrate to FDA the comparability of such materials. 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.

Regulatory requirements and approval processes in European Union 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.

In 2008, the FDA issued a directive for diabetes trials to demonstrate that the therapy will not result in an unacceptable increase in cardiovascular risk. The Company believes the design of its Phase 3 clinical trial of D-tagatose as a treatment for Type 2 diabetes meets the requirements of the FDA directive.

The Company is 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, Spherix performed an annual evaluation of the effectiveness of the Company's internal control over financial reporting and reports on management's assessment of the adequacy of those controls in its annual report on Form 10-K. An annual independent audit assessment of our internal controls will also be required beginning with the year ending December 31, 2010.

The increase in accounting related regulations over the years, particularly those governing public companies, has had the effect of increasing the Company's cost for external accounting services, from 0.3% of revenue in 1997 ($40,000) to 18% in 2009 ($240,000). The Company anticipates the cost of compliance is likely to further increase in 2010 with the implementation of the external audit requirements of Section 404 for non-accelerated filers.

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 the Company's financial position, results of operations, capital expenditures, cash flows or competitive position.

Employees

The Company employs 11 individuals on a full- or part-time basis. Of this total, 10 are full-time employees. The Company's employees are not currently unionized, and management believes that its relations with the Company's employees are harmonious.

Item 1A. RISK FACTORS

Any of the risk factors we describe below could severely harm our business, financial condition and operating results. The market price of our common stock could decline if one or more of these risks and uncertainties develop into actual events.

RISKS RELATED TO OUR BUSINESS

OUR DRUG CANDIDATE IS STILL IN DEVELOPMENT AND REMAINS SUBJECT TO CLINICAL TESTING AND REGULATORY APPROVAL. THIS PROCESS IS HIGHLY UNCERTAIN AND WE MAY NEVER BE ABLE TO COMMERCIALIZE D-TAGATOSE. We have limited our biotech efforts to attempting to commercialize one single product, D-tagatose as a treatment for Type 2 diabetes. We are engaged in a Phase 3 clinical trial and a Phase 2 Dose Range trial, both solely focused on D-tagatose as a Type 2 diabetes treatment, and are devoting nearly all of our available resources to this singular effort. If we are not successful, we will likely need to cease all operations.

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 Type 2 diabetes 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 that even if we achieve them, we will attract a buyer, licensee or partner. We have limited resources. As of December 31, 2009, our cash and short-term investments were reduced to approximately $9.4 million. We currently expect that we will have cash to fund our current operations into the fourth quarter of 2010. We will need to raise additional funds to continue our development operations and we may not be able to do so in a timely fashion.

CLINICAL TESTS ARE A LONG, EXPENSIVE AND UNCERTAIN PROCESS. IF D-TAGATOSE DOES NOT RECEIVE THE NECESSARY REGULATORY APPROVALS, WE WILL BE UNABLE TO COMMERCIALIZE D-TAGATOSE AS A DRUG. We have not received, any may never receive, regulatory approval for the commercial sale of D-tagatose. Clinical trials are a long, expensive and uncertain process. Satisfaction of regulatory requirements typically depends on the nature, complexity and novelty of the product, and requires the expenditure of substantial resources. Data obtained from clinical trials can be interpreted in different ways, which could delay, limit or prevent regulatory approval. 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. 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 D-tagatose 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 and, accordingly, may encounter unforeseen problems and delays in the approval process.

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 Type 2 diabetes 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, including requiring additional tests or trials. 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 NEAR FUTURE TO CONTINUE OUR BUSINESS. WE MAY NOT BE ABLE TO OBTAIN ADDITIONAL FINANCING IF NEEDED. As of December 31, 2009, the Company had cash and short-term investments of approximately $9.4 million and expects to expend all of this amount within the next twelve (12) months. 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 capital in 2010 to continue our business beyond this period. The current economic downturn and its impact on the stock markets will most likely have a negative impact on our efforts to raise additional capital. 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.

UNSTABLE MARKET CONDITIONS MAY HAVE SERIOUS ADVERSE CONSEQUENCES ON OUR BUSINESS. The recent economic downturn and market instability has 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. We have already encountered several challenges which have delayed our Phase 3 trial. Each delay makes it more likely that we will need interim financing to complete the Phase 3 trial. We cannot predict whether we will encounter additional problems with our trial that will cause us or regulatory authorities to delay or suspend the clinical trial, or delay the analysis of data from the ongoing trial. Any of the following could delay the clinical development of D-tagatose as a drug:

- 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 CURRENTLY RELY ON THIRD PARTIES TO CONDUCT PORTIONS OF OUR TRIAL, AND THOSE THIRD PARTIES MAY NOT PERFORM SATISFACTORILY. We rely on third parties to enroll qualified patients, conduct our trial, provide services in connection with such trial, and coordinate and oversee significant aspects of the trial. 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 trial 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 11 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 Arla material 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 expect 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 manufacturer(s) to the previously supplied Arla 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 a drug which must be consumed in powder form, three times a day, and in the quantities used in our trial.

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 and/or difficult administration;
- prevalence and severity of adverse side effects;
- 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.

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.

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. We are exploring the prospects of extending the life of the patent of D-tagatose for up to an additional five years. In order for the Company's request for an extension to be considered, FDA approval is needed prior to the patent's expiration in 2012. There is no assurance, however, that this effort will be successful.

WE HAVE SUSTAINED LOSSES IN THE PAST AND WE MAY SUSTAIN LOSSES IN THE FUTURE. We have incurred losses from continuing operations in prior years, including 2009 and 2008. Our net losses from continuing operations before taxes for the years ended December 31, 2009 and 2008 were $9.1 million and $6.2 million, respectively. We expect to incur substantial losses in 2010 and thereafter until we find a purchaser/licensee. 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 BY COMPETITORS. 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, new 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, 2009, 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 SPHERIX'S COMMON STOCK HAS BEEN HIGHLY VOLATILE DUE TO SEVERAL FACTORS WHICH WILL CONTINUE TO AFFECT THE PRICE OF OUR STOCK. Our common stock has traded as low as $0.20 and as high as $4.15 between January 1, 2008 and December 31, 2009. 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 which 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 THE 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.

In the future, if our common stock were to fail to meet the minimum bid price requirement or any of the other 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 Marketplace 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 intend to retain future earnings, if any, in order to provide funds for use in the operation and expansion of our business and for further research and development. Accordingly, 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 WHICH COULD BE BENEFICIAL TO OUR STOCKHOLDERS. In 2001, we adopted a shareholder rights plan. 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, 2009, our officers and directors and their affiliates owned approximately 15% 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 Company also leased 5,000 square feet of research lab and warehouse space for Biospherics in Annapolis, Maryland under a lease that expired June 30, 2009. The capacity of the Bethesda facility is adequate for the Company's current needs.

Item 3. LEGAL PROCEEDINGS

None.

Item 4. REMOVED AND RESERVED

PART II

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

As of March 29, 2010, the number of shareholders of record of the Company's common stock was approximately 820. 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 2009 or 2008.

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, 2009, based on the daily high and low prices as reported by NASDAQ:

	High	Low
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
1st Quarter 2008	$1.30	$1.00
2nd Quarter 2008	$1.24	$0.65
3rd Quarter 2008	$0.82	$0.49
4th Quarter 2008	$0.75	$0.20

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.

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.

On November 17, 2009, the stockholders authorized a reverse split of the Company's common stock within a range of 1:5 to 1:20. Accordingly, the Board of Directors has the authority, at any time until mid-May 2011, to determine whether and when to implement a reverse stock split and the actual ratio of such a split within the 1:5 to 1:20 range.

The Company fully regained compliance with the requirements for continued listing on the NASDAQ Capital Market as described below.

Minimum Bid Price Requirement

On July 21, 2008, NASDAQ notified the Company that its common stock failed to maintain a minimum bid price of $1.00 over the previous 30 consecutive business days as required by the NASDAQ Listing Rules. In October 2008, NASDAQ suspended enforcement of the minimum bid price and market value of publicly held shares requirements through January 16, 2009. On December 19, 2008, NASDAQ extended its suspension of the requirements until April 20, 2009 and on March 24, 2009 NASDAQ again extended the suspension until July 20, 2009.

On May 20, 2009, the Company received notification from NASDAQ confirming that it has regained compliance with the minimum bid price requirement for continued listing on NASDAQ under Listing Rule 5550(a)(2). In the letter, NASDAQ stated that this matter is now closed.

Independent Director Requirement

On April 17, 2009, the Company reported in the Current Report on Form 8-K filed with the Securities and Exchange Commission, that Mr. A. Paul Cox, Jr., one of our independent directors, passed away on April 13, 2009. On April 23, 2009, NASDAQ notified the Company that the Company no longer complied with NASDAQ Listing Rule 5605, which requires that a majority of the board of directors be comprised of independent directors.

On May 18, 2009, the Company received notification from NASDAQ confirming that it had regained compliance with the independent director requirement for continued listing on NASDAQ under Listing Rule 5605(b)(1). NASDAQ's determination was based on the Company's appointment of Thomas B. Peter to the Company's Board of Directors as reported in the Company's Current Report Form 8-K filed on May 14, 2009. In the letter, NASDAQ stated that this matter is now closed.

At September 30, 2008, the Company's stockholders' equity fell below the $10 million limit required for continued listing on the NASDAQ Global Market. Accordingly, the Company transferred its listing from the NASDAQ Global Market to the NASDAQ Capital Market, which has a lower stockholders' equity limit of $2.5 million. At December 31, 2009, the Company's stockholders' equity was $10.2 million, after raising $6.3 million in a registered direct stock 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, 2009.

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	40,500	$2.57	857,700
Equity compensation			

plans not approved by securities holders	*1,104,348	$3.25	N/A
Total	1,144,848		857,700

*The 1,104,348 warrants were issued in the November 2009 registered direct offering described earlier in this Item 5.

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 a single proprietary product for commercial application. 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 engages in product development of D-tagatose. The Company's focus is on the non-food uses of D-tagatose. Our efforts have been to explore whether D-tagatose is an effective treatment for Type 2 diabetes, as a prospective first-in-class drug candidate. D-tagatose is believed to depress elevations of blood sugar levels in diabetic patients by increasing glycogen synthesis while decreasing glycogen utilization, resulting in an improvement of blood sugar control and modulation of HbA1c.

The Company intends to continue to develop D-tagatose and simultaneously search for a sale, license, partner, or other strategic alliance to fully take D-tagatose through the FDA approval process and to bring D-tagatose to market. We are hopeful that as we proceed with our development efforts, incremental successes may afford us the opportunity to achieve such a strategic alliance.

The Company is conducting two clinical trials under an FDA Investigational New Drug ("IND") application process: a Phase 3 trial to determine safety and efficacy of D-tagatose as a treatment for Type 2 diabetes; and a Phase 2 Dose Range trial to evaluate the effectiveness of lower doses of D-tagatose in treating Type 2 diabetes. The Dose Range trial and the efficacy portion of the Phase 3 trial are expected to be completed in mid- to late-2010, and the safety portion of the Phase 3 trial is expected to be completed in early 2011.

The Company expects to incur substantial development costs, without substantial corresponding revenue. The Company intends to finance its development activities through the remaining proceeds received from the 2007 sale of InfoSpherix and the November 2009 stock placement, as well as additional funds it may seek to raise through the sale of additional stock.

Results of Operations—2009 Compared with 2008

Revenue and Direct Costs

Revenue and direct contract costs are primarily related to the Company's Health Sciences business, which started in July 2007 and has experienced a steady growth in business with new clients representing 52% of the growth between years. 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.

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 commercialize D-tagatose. 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 are the primary focus of the Biospherics segment. The R&D expenditures for 2009 and 2008 consisted of both the Phase 3 clinical trial and a related Phase 2 Dose Range study. The increase between years is related to the expansion of the Phase 3 trial to India and the related increase in the number of subjects participating in the trials. A minimum of 332 participants must complete the Phase 3 trial in accord with the current protocol.

The Dose Range trial and the efficacy portion of the Phase 3 trial will likely be completed in mid- to late-2010, and the safety portion of the Phase 3 trial will likely be completed in early 2011, based on current enrollment and retention numbers. The New Drug Application ("NDA") could be filed as early as mid-2011. The FDA review process typically takes between one and two years to complete. Approval of an NDA is at the discretion of the FDA.

In June 2009, the Company received the first batch of FDA current Good Manufacturing Practice ("cGMP") D-tagatose, U.S. Pharmacopeia ("USP") grade. The D-tagatose will be used to satisfy the Chemistry, Manufacturing and Control ("CMC") requirements of its NDA to the FDA. A Drug Master File ("DMF") has been submitted to the FDA and Spherix has a Letter of Authorization to refer to the DMF in its NDA. This and subsequent batches are being used in the ongoing clinical trials.

In December 2009, the Company entered into a Manufacturing Support and Supply Agreement with Inalco S.p.A of Italy. Under the agreement the Company committed to the purchase of 25 metric tons of D-tagatose. The entire purchase commitment of $1,100,000 was realized an expense in 2009. Of this amount $500,000 was paid in 2009, with the remaining balance payable in 2010. An additional $300,000 of D-tagatose, separate from the above Manufacturing Support and Supply Agreement, was also purchased in 2009 from Inalco.

Selling, General and Administrative

Our selling, general and administrative 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. The increase in selling, general and administrative costs between 2009 and 2008 are primarily related to the expansion of the Company's commercialization efforts of D-tagatose as a treatment for Type 2 diabetes. These plans include the formation of regional Advisory Boards, with the first one held in October 2009.

Interest

Interest revenue in 2009 and 2008 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 November 2009 equity offering. Interest income between years has decreased with the decrease in funds available for investing and the lower rates of return available in the market.

Income Tax

The 2008 income tax expense is related to the release of the $2 million escrow balance in November 2008 in connection with the sale of the InfoSpherix subsidiary in 2007.

Discontinued Operations

On August 15, 2007, the Company completed the sale of InfoSpherix for $17 million ($15 million at closing and $2 million following a 15-month escrow period), pursuant to the Stock Purchase Agreement dated June 25, 2007. The $2 million escrow balance was recorded as a gain on sale of the discontinued segment when it was realized in November 2008. The sale was conducted to allow Spherix to focus substantially all of its efforts on Biospherics.

The results of operations of the discontinued InfoSpherix segment, including the costs to sell the segment, are as follows:

	2008
Interest revenue	$ 70,000
Gain on sale of segment	2,000,000
Income from discontinued operations before taxes	$ 2,070,000

Sales Backlog

The Company's backlog as of December 31, 2009 and 2008 (consisting solely of backlog from the Health Sciences business) was approximately $770,000 and $1.2 million, 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 June 2009, the Financial Accounting Standards Board ("FASB") established the FASB Accounting Standards Codification (Codification) as the source of authoritative U.S. generally accepted accounting principles ("GAAP") recognized by the FASB to be applied to nongovernmental entities and rules and interpretive releases of the SEC as authoritative GAAP for SEC registrants. The Codification supersedes all the existing non-SEC accounting and reporting standards upon its effective date and subsequently, the FASB will not issue new standards in the form of Statements, FASB Staff Positions or Emerging Issues Task Force Abstracts. This guidance is effective for interim periods ending after September 15, 2009. We adopted this guidance for the period ended September 30, 2009, with no effect on our consolidated results of operations and financial condition for the three and nine months ended September 30, 2009.

In October 2009, the 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. We are currently evaluating the impact the adoption of this update might have on our results of operations and financial position.

In October 2009, the FASB issued ASC Update No. 2009-14, which amends the Software topic of the Codification. The amendments in this update change the accounting model for revenue arrangements that include both tangible products and software elements. Tangible products containing software components and nonsoftware components that function together to deliver the tangible product's essential functionality are no longer within the scope of the software revenue guidance in Subtopic 985-605 of the Codification. In addition, the amendments in this update require that hardware components of a tangible product containing software components always be excluded from the software revenue guidance. In that regard, the amendments provide additional guidance on how to determine which software, if any, relating to the tangible product also would be excluded from the scope of the software revenue guidance. The amendments also provide guidance on how a vendor should allocate arrangement consideration to deliverables in an arrangement that includes both tangible products and software. The amendments also provide further guidance on how to allocate arrangement consideration when an arrangement includes deliverables both included and excluded from the scope of the software revenue guidance. 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. We are currently evaluating the impact the adoption of this update might have on our results of operations and financial position.

In December 2007, the FASB revised the authoritative guidance for business combinations, which establishes principles and requirements for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired, liabilities assumed, and any noncontrolling interest in the acquiree in a business combination. The guidance establishes principles stipulating how goodwill acquired in a business combination or a gain from a bargain purchase should be recognized and measured under a method established by the guidance referred to as the acquisition method. The guidance also expands the disclosure requirements related to the nature and financial impact of business combinations. We adopted this guidance as of January 1, 2009 and the adoption did not have a material impact on our financial position, results of operations or cash flows.

In December 2007, the FASB revised the authoritative guidance for consolidation, which establishes accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. The guidance clarifies that a noncontrolling interest in a subsidiary is an ownership interest in the consolidated entity that should be reported as equity in the consolidated financial statements. The guidance also requires consolidated net income to be reported at amounts that include the amounts attributable to both the parent and the noncontrolling interest. It also requires disclosure, on the face of the consolidated statement of income, of the amounts of consolidated net income attributable to the parent and to the noncontrolling interest. It also provides guidance when a subsidiary is deconsolidated and requires expanded disclosures in the consolidated financial statements that clearly identify and distinguish between the interests of the parent and the interests of the noncontrolling owners of a subsidiary. We adopted this guidance as of January 1, 2009 and the adoption did not have a material impact on our financial position, results of operations or cash flows.

In June 2008, the FASB revised the authoritative guidance for earnings per share, which establishes that unvested share-based payment awards that contain non-forfeitable rights to dividends or dividend equivalents are participating securities and shall be included in the computation of earnings per share pursuant to the two-class method. In contrast, the right to receive dividends or dividend equivalents that the holder will forfeit if the award does not vest, does not constitute a participation right and such an award does not meet the definition of a participating security in its current form (that is, prior to the requisite service having been rendered for the award). We adopted this guidance as of January 1, 2009 and the adoption did not have a material impact on our financial position, results of operations or cash flows.

In April 2009, the FASB revised the authoritative guidance for financial instruments. The guidance requires disclosures about fair value of financial instruments in interim financial statements as well as in annual financial

statements. This guidance is effective for interim periods ending after June 15, 2009. We adopted this guidance in the second quarter of 2009, and the adoption did not have a material impact on our financial position, results of operations or cash flows.

In April 2009, the FASB revised the authoritative guidance for fair value measurements and disclosures to provide additional guidance in determining whether a market for a financial asset is not active and a transaction is not distressed for fair value measurement purposes. This guidance is effective for interim periods ending after June 15, 2009. We adopted this guidance for the period ending June 30, 2009. The adoption of this guidance did not have a material impact on our financial position, results of operations or cash flows.

In April 2009, the FASB revised the authoritative guidance for investments in debt and equity securities to provide guidance in determining whether impairments in debt securities are other-than-temporary, and modifies the presentation and disclosures surrounding such instruments. This guidance is effective for interim periods ending after June 15, 2009. We adopted the provisions of this guidance for the period ending June 30, 2009. The adoption of this guidance had no material impact on our financial position, results of operations or cash flows.

In May 2009, the FASB revised the authoritative guidance for subsequent events, which establishes general standards of accounting for and disclosure of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. This guidance is effective for financial statements issued for interim and annual reporting periods ending after June 15, 2009. We adopted this guidance for the period ended June 30, 2009, and the Company is not aware of any subsequent events that would require recognition or disclosure in the consolidated financial statements.

Liquidity and Capital Resources

The Company's working capital was $7.7 million as of December 31, 2009. Over the next 12 months, the Company expects that it will need to expend between $9 million and $11 million to complete the Phase 2 and Phase 3 trials and to fund its increased market development and commercialization activities. The total cost of completing the trials is difficult to determine and can be affected by any number of factors including, but not limited to, the time to complete the trials.

The Company will need to raise additional funds in 2010 to continue its operations. Any such fundraising will likely require the issuance of additional Company equity securities and a purchaser of such securities will likely insist that such securities be registered securities.

In November 2009, the Company obtained net proceeds of approximately $6 million in a registered direct primary offering. The common stock issued in the offering and the common stock which may be issued upon 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.

Pursuant to SEC rules, the Company may not be in a position to issue additional shares of its common stock in another registered direct primary offering under a Form S-3 registration statement until mid-November 2010. Thus, if the Company wishes to conduct another registered direct primary offering before mid-November 2010, it will likely have to do so in whole or in part under a Form S-1 registration statement.

Further, NASDAQ rules require stockholder approval for certain stock issuances constituting 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 in 2010; that the Company will be able to obtain any required stockholder approval; or that the Company will be able to have a Form S-1 registration statement declared effective to complete such an offering.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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

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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, 2009 and 2008, 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, 2009. 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 financial statements referred to above present fairly, in all material respects, the financial position of Spherix Incorporated as of December 31, 2009 and 2008, and the results of their operations and their cash flows for each of the two years in the period ended December 31, 2009 in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1, the Company incurred a net loss of $9,148,631 during the year ended December 31, 2009, and, as of that date, the Company had $9,026,002 in cash, and used $7,832,625 in cash for operations for the year ended December 31, 2009. These factors, among others, as discussed in Note 1 to the financial statements, raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Grant Thornton LLP

Baltimore, MD
March 30, 2010

Spherix Incorporated
Consolidated Statements of Operations
For the years ended December 31, 2009 and 2008

	2009	2008
Revenue	$ 1,359,110	$ 1,025,961
Operating expense		
Direct costs	449,293	397,645
Research and development expense	6,830,957	4,004,565
Selling, general and administrative expense	3,265,137	3,135,310
Total operating expense	10,545,387	7,537,520
Loss from operations	(9,186,277)	(6,511,559)
Interest income	37,646	348,443
Interest expense	-	(2,220)
Other expense	-	(5,994)
Loss from continuing operations before taxes	(9,148,631)	(6,171,330)
Income tax benefit	-	552,803
Loss from continuing operations	(9,148,631)	(5,618,527)
Discontinued operations		
Income from discontinued operations	-	2,070,091
Income tax expense	-	(587,098)
Income from discontinued operations	-	1,482,993
Net loss	$ (9,148,631)	$ (4,135,534)
Net (loss) income per share, basic		
Continuing operations	$ (0.62)	$ (0.39)
Discontinued operations	$ -	$ 0.10
Net (loss) income per share, basic	$ (0.62)	$ (0.29)
Net (loss) income per share, diluted		
Continuing operations	$ (0.62)	$ (0.39)
Discontinued operations	$ -	$ 0.10
Net (loss) income per share, diluted	$ (0.62)	$ (0.29)
Weighted average shares outstanding, basic	14,713,473	14,342,953
Weighted average shares outstanding, diluted	14,713,473	14,342,953

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

Spherix Incorporated
Consolidated Balance Sheets
As of December 31, 2009 and 2008

ASSETS	2009	2008
Current assets		
Cash and cash equivalents	$ 9,026,002	$ 9,404,843
Short-term investments, held to maturity	375,003	1,894,434
Trade accounts receivable	274,153	281,342
Other receivables	948	37,223
Prepaid expenses and other assets	209,255	282,971
Total current assets	9,885,361	11,900,813
Property and equipment, net	225,958	310,365
Patents, net of accumulated amortization of $38,588 and $110,599	8,364	14,433
Deposit	35,625	35,625
Total assets	$ 10,155,308	$ 12,261,236
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable and accrued expenses	$ 1,714,140	$ 710,881
Accrued salaries and benefits	388,665	304,756
Deferred revenue	90,915	39,347
Total current liabilities	2,193,720	1,054,984
Deferred compensation	580,000	660,000
Deferred rent	109,712	136,736
Total liabilities	2,883,432	1,851,720
Commitments and contingencies	-	-
Stockholders' equity		
Preferred stock, $0.01 par value, 2,000,000 shares authorized; none issued and outstanding	-	-
Common stock, $0.005 par value, 50,000,000 shares authorized; 17,231,086 and 14,437,600 issued, 17,150,648 and 14,357,162 outstanding at December 31, 2009 and 2008, respectively	86,155	72,188
Paid-in capital in excess of par value	33,599,510	27,602,486
Treasury stock, 80,438 shares, at cost at December 31, 2009 and 2008, respectively	(464,786)	(464,786)
Accumulated deficit	(25,949,003)	(16,800,372)
Total stockholders' equity	7,271,876	10,409,516
Total liabilities and stockholders' equity	$ 10,155,308	$ 12,261,236

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 31, 2009 and 2008

	Common Stock		Paid-in Capital in Excess of Par	Treasury Stock		Retained Earnings (Accumulated Deficit)	Stockholders' Equity
	Shares	Amount		Shares	Amount		
Balance, January 1, 2008	14,399,140	$71,996	$ 27,508,418	80,438	$ (464,786)	$ (12,664,838)	$ 14,450,790
Stock-based compensation	38,460	192	94,068	-	-	-	94,260
Net loss	-	-	-	-	-	(4,135,534)	(4,135,534)
Balance, December 31, 2008	14,437,600	$72,188	$ 27,602,486	80,438	$ (464,786)	$ (16,800,372)	$ 10,409,516
Issuance of common stock							
Sale of common stock - registery direct, net	2,760,870	13,804	6,336,196	-	-	-	6,350,000
Cost of stock issuance	-	-	(416,347)	-	-	-	(416,347)
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

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, 2009 and 2008

	2009	2008
Cash flows from operating activities		
Net loss	$ (9,148,631)	$ (4,135,534)
Adjustments to reconcile net loss to net cash used in operating activities:		
Income from discontinued operations	-	(1,482,993)
Income tax benefit	-	(552,803)
Depreciation and amortization	84,377	85,718
Loss (gain) on sale of fixed assets	5,399	(14,701)
Patent write-off	-	9,860
Stock-based compensation	77,338	94,260
Changes in assets and liabilities:		
Receivables	43,464	(112,755)
Prepaid expenses and other assets	73,716	89,271
Accounts payable and accrued expenses	1,087,168	(410,670)
Deferred rent	(27,024)	(19,795)
Deferred compensation	(80,000)	51,000
Deferred revenue	51,568	24,182
Net cash used in activities of continuing operations	(7,832,625)	(6,374,960)
Net cash used in activities of discontinued operations	-	(34,295)
Net cash used in operating activities	(7,832,625)	(6,409,255)
Cash flows from investing activities		
Proceeds from the sale of subsidiary	-	2,070,091
Purchase of short-term investments	-	(1,894,434)
Proceeds from the sale of short-term investments	1,519,431	-
Purchase of property and equipment	-	(183,403)
Proceeds from the sales of fixed assets	700	15,187
Net cash provided by investing activities of continuing operations	1,520,131	7,441
Net cash used in investing activities of discontinued operations	-	-
Net cash provided by investing activities	1,520,131	7,441
Cash flows from financing activities		
Net change in book overdraft	-	(33,302)
Proceeds from issuance of common stock, net	5,933,653	-
Net cash provided by (used in) financial activities of continuing operations	5,933,653	(33,302)
Net cash used in financing activities of discontinued operations	-	-
Net cash provided by (used in) financing activities	5,933,653	(33,302)
Net decrease in cash and cash equivalents	(378,841)	(6,435,116)
Cash and cash equivalents, beginning of year	9,404,843	15,839,959
Cash and cash equivalents, end of year	$ 9,026,002	$ 9,404,843
Supplemental cash flow information		
Interest paid	$ -	$ 2,220

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

Spherix Incorporated
Notes to Consolidated Financial Statements

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 segment was created in July 2007 when Claire L. Kruger, CEO and COO, joined the Company in advance of the anticipated sale of the Company's wholly-owned subsidiary, InfoSpherix Incorporated. 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. InfoSpherix was the Company's information services segment and was sold on August 15, 2007 in a move to allow the Company to devote its resources to the activities of the Biospherics segment.

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 now provides management, strategic guidance, business development, marketing and other services to its subsidiaries.

The consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. However, as discussed in Note 2, the Company incurred a net loss of $9.1 million for the period ended December 31, 2009, and as of December 31, 2009, had $9 million in cash and investments to fund operations, but anticipates expending between $9 million and $11 million of cash flows from operations during 2010. In the absence of the Company being able to raise additional funds, this factor raises substantial doubt as to the Company's ability to continue as a going concern. The Company is currently pursuing opportunities to raise additional capital to support ongoing operations; however, the Company can provide no assurance that it will be able to secure these funds. The financial statements do not include any adjustments relating to the recoverability and classifications or recorded asset amounts or the amounts and classifications of liabilities or any other adjustments that may be necessary if the Company is unable to continue as a going concern.

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.

On August 15, 2007, the Company sold InfoSpherix. Accordingly, the final payment received in 2008 from the sale of InfoSpherix is reported in the accompanying financial statements as discontinued operations in the Consolidated Statement of Operations.

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 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, 2009, the Company had approximately $8.9 million invested in funds with a maturity of three months or less, which are included as cash and cash equivalents. The Company maintains cash balances at several banks. Accounts at each institution are insured by the Federal Deposit Insurance Corporation up to $250,000. At December 31, 2009, the Company's cash and cash equivalent in excess of the FDIC

limits was $8.7 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 consist of investments in debt securities, which mature in one year or less, and are valued at amortized cost, which approximates fair value.

Concentrations

During 2009 and 2008, revenue from five and three Health Sciences clients accounted for 72% and 66% of the Company's total revenue, respectively.

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 lesser 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.

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 undiscounsted future cash flows. No such impairment was noted.

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 lesser of the life of the patent or the projected sales period of the product or process.

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.

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.

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.

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.

The Company's policy is to recognize interest and penalties on tax liabilities as interest expense. At December 31, 2009 and 2008, the Company had no unrecognized income tax benefits and recognized no interest or penalties on income tax liabilities.

Discontinued Operations

On August 15, 2007, the Company completed the sale of InfoSpherix for $17 million ($15 million at closing and $2 million following a 15-month escrow period), pursuant to the Stock Purchase Agreement dated June 25, 2007. The $15 million sale proceeds were reported as gain on sale of the discontinued segment in 2007. The $2 million escrow balance was recorded as a gain on sale of the discontinued segment and realized in November 2008. The sale was conducted to allow Spherix to focus substantially all of its efforts on Biospherics, with the principal focus on the commercialization of D-tagatose.

The results of operations of the discontinued InfoSpherix segment, including the costs to sell the segment, are as follows:

	2008
Interest revenue	$ 70,000
Gain on sale of segment	2,000,000
Income from discontinued operations before taxes	$ 2,070,000

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 Sheet, 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 vesting 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 each of the years ended December 31, 2009 and 2008, the Company recognized $13,000 in stock based compensation expense relating to 59,000 stock options awarded in February 2006 and $64,000 and $81,000 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, 2009, none of the Company's 40,500 outstanding options or 1,104,348 warrants were considered common stock equivalents as the exercise prices were all above the average market price of the Company's common stock for the period.

New Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board (FASB) established the FASB Accounting Standards Codification (Codification) as the source of authoritative U.S. generally accepted accounting principles (GAAP) recognized by the FASB to be applied to nongovernmental entities and rules and interpretive releases of the SEC as authoritative GAAP for SEC registrants. The Codification supersedes all the existing non-SEC accounting and reporting standards upon its effective date and subsequently, the FASB will not issue new standards in the form of Statements, FASB Staff Positions or Emerging Issues Task Force Abstracts. This guidance is effective for interim periods ending after September 15, 2009. We adopted this guidance for the period ended September 30, 2009, with no effect on our consolidated results of operations and financial condition for the three and nine months ended September 30, 2009.

In December 2007, the FASB revised the authoritative guidance for business combinations, which establishes principles and requirements for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired, liabilities assumed, and any noncontrolling interest in the acquiree in a business combination. The guidance establishes principles stipulating how goodwill acquired in a business combination or a gain from a bargain purchase should be recognized and measured under a method established by the guidance referred to as the acquisition method. The guidance also expands the disclosure requirements related to the nature and financial impact of business combinations. We adopted this guidance as of January 1, 2009 and the adoption did not have an impact on our financial position, results of operations or cash flows.

In December 2007, the FASB revised the authoritative guidance for consolidation, which establishes accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. The guidance clarifies that a noncontrolling interest in a subsidiary is an ownership interest in the consolidated entity that should be reported as equity in the consolidated financial statements. The guidance also requires consolidated net income to be reported at amounts that include the amounts attributable to both the parent and the noncontrolling interest. It also requires disclosure, on the face of the consolidated statement of income, of the amounts of consolidated net income attributable to the parent and to the noncontrolling interest. It also provides guidance when a subsidiary is deconsolidated and requires expanded disclosures in the consolidated financial statements that clearly identify and distinguish between the interests of the parent and the interests of the noncontrolling owners of a subsidiary. We adopted this guidance as of January 1, 2009 and the adoption did not have an impact on our financial position, results of operations or cash flows.

In June 2008, the FASB revised the authoritative guidance for earnings per share, which establishes that unvested share-based payment awards that contain non-forfeitable rights to dividends or dividend equivalents are participating securities and shall be included in the computation of earnings per share pursuant to the two-class method. In contrast, the right to receive dividends or dividend equivalents that the holder will forfeit if the award does not vest, does not constitute a participation right and such an award does not meet the definition of a participating security in its

current form (that is, prior to the requisite service having been rendered for the award). We adopted this guidance as of January 1, 2009 and the adoption did not have an impact on our financial position, results of operations or cash flows.

In April 2009, the FASB revised the authoritative guidance for financial instruments. The guidance requires disclosures about fair value of financial instruments in interim financial statements as well as in annual financial statements. This guidance is effective for interim periods ending after June 15, 2009. We adopted this guidance in the second quarter of 2009, and the adoption did not have a material impact on our financial position, results of operations or cash flows.

In April 2009, the FASB revised the authoritative guidance for fair value measurements and disclosures to provide additional guidance in determining whether a market for a financial asset is not active and a transaction is not distressed for fair value measurement purposes. This guidance is effective for interim periods ending after June 15, 2009. We adopted this guidance for the period ending June 30, 2009. The adoption of this guidance did not have an impact on our financial position, results of operations or cash flows.

In April 2009, the FASB revised the authoritative guidance for investments in debt and equity securities to provide guidance in determining whether impairments in debt securities are other-than-temporary, and modifies the presentation and disclosures surrounding such instruments. This guidance is effective for interim periods ending after June 15, 2009. We adopted the provisions of this guidance for the period ending June 30, 2009. The adoption of this guidance had no material impact on our financial position, results of operations or cash flows.

In May 2009, the FASB revised the authoritative guidance for subsequent events, which establishes general standards of accounting for and disclosure of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. This guidance is effective for financial statements issued for interim and annual reporting periods ending after June 15, 2009. We adopted this guidance for the period ended June 30, 2009, and the Company is not aware of any subsequent events which would require recognition or disclosure in the consolidated financial statements.

In October 2009, the 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. We are currently evaluating the impact the adoption of this update might have on our results of operations and financial position.

In October 2009, the FASB issued ASC Update No. 2009-14, which amends the Software topic of the Codification. The amendments in this update change the accounting model for revenue arrangements that include both tangible products and software elements. Tangible products containing software components and nonsoftware components that function together to deliver the tangible product's essential functionality are no longer within the scope of the software revenue guidance in Subtopic 985-605 of the Codification. In addition, the amendments in this update require that hardware components of a tangible product containing software components always be excluded from the software revenue guidance. In that regard, the amendments provide additional guidance on how to determine which software, if any, relating to the tangible product also would be excluded from the scope of the software revenue guidance. The amendments also provide guidance on how a vendor should allocate arrangement consideration to deliverables in an arrangement that includes both tangible products and software. The amendments also provide further guidance on how to allocate arrangement consideration when an arrangement includes deliverables both included and excluded from the scope of the software revenue guidance. 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. We are currently evaluating the impact the adoption of this update might have on our results of operations and financial position.

2. Liquidity

The Company's working capital was $7.7 million as of December 31, 2009. Over the next 12 months, the Company expects that it will need to expend between $9 million and $11 million to complete the Phase 2 and Phase 3 trials and to fund its increased market development and commercialization activities. The total cost of completing the trials is difficult to determine and can be affected by any number of factors including, but not limited to, the time to complete the trials.

The Company will need to raise additional funds in 2010 to continue its operations. Any such fundraising will likely require the issuance of additional Company equity securities and a purchaser of such securities will likely insist that such securities be registered securities.

In November 2009, the Company obtained net proceeds of approximately $6 million in a registered direct primary offering. The common stock issued in the offering and the common stock which may be issued upon 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.

Pursuant to SEC rules, the Company may not be in a position to issue additional shares of its common stock in another registered direct primary offering under a Form S-3 registration statement until mid-November 2010. Thus, if the Company wishes to conduct another registered direct primary offering before mid-November, 2010, it will likely have do so in whole or in part under a Form S-1 registration statement.

Further, NASDAQ rules require stockholder approval for any certain stock issuances constituting 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 in 2010; that the Company will be able to obtain any required stockholder approval; or that the Company will be able to have a Form S-1 registration statement declared effective to complete such an offering.

3. Fair Value Measurement

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. An allowance for doubtful accounts from continuing operations was not deemed necessary at December 31, 2009 and 2008.

5. Property and Equipment

During 2008, the Company relocated its headquarters to a smaller facility. The decrease in office furniture and equipment and the decrease in leasehold improvements are a direct result of this move. The components of property and equipment as of December 31, at cost are:

	2009	2008
Computers	$ 14,000	$ 14,000
Office furniture and equipment	109,000	187,000
Leasehold improvements	229,000	283,000

Total cost	352,000	484,000
Accumulated depreciation and amortization	(126,000)	(174,000)
Property and equipment, net	$ 226,000	$ 310,000

The Company's depreciation expense for the years ended December 31, 2009 and 2008 was $78,000 and $78,000, respectively. In 2008, lease incentives under the Bethesda facility lease provided $150,000 in leasehold improvements, which is recognized on a straight line basis over the life of the lease.

6. Patents and Intangible Assets

The Company's amortization expense for the years ended December 31, 2009 and 2008 was $6,000 and $8,000, respectively. The Company's future amortization based on its patents and intangible assets at December 31, 2009 is as follows:

Year	Amortization Expense
2010	$ 7,000
2011	7,000
Total	$14,000

7. Accounts Payable and Accrued Expenses

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

	2009	2008
Accounts payable	$ 961,000	$ 524,000
Purchase commitment	600,000	0
Deferred Compensation	140,000	113,000
Accrued expenses	13,000	74,000
	$1,714,000	$711,000

8. Stockholders' Equity

Registered Direct

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 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 2009 and 2008, the Company issued 26,664 and 38,460 shares, respectively, of restricted stock with a fair value of $40,000 in each year to its independent Board Members, which was recognized as compensation expense at the time of issue. The fair value of the above 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 2009 and 2008, no stock options were granted under the Plan. At December 31, 2009, 857,700 options were available for grant 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.

Activity for the two years ended December 31, 2009, for all option grants is shown below:

	2009 Shares	2009 Weighted Average Exercise Price	2008 Shares	2008 Weighted Average Exercise Price
Outstanding at beginning of year	40,500	$ 2.57	216,800	$ 7.36
Granted	-	$ -	-	$ -
Exercised	-	$ -	-	$ -
Expired or forfeited	-	$ -	(176,300)	$ 8.46
Outstanding at end of year	40,500	$ 2.57	40,500	$ 2.57
Options exercisable at end of year	39,750		39,000	
Weighted-average fair value of options granted during the year	$ -		$ -	
Price range of options				
Outstanding	$2.20-$3.41		$2.20-$3.41	
Exercised	$ -		$ -	
Expired or forfeited	$ -		$6.35-$8.67	

The following table summarizes information with respect to stock options outstanding at December 31, 2009:

Range of Exercise Price	Number of Options Outstanding at 12/31/09	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life
$2.20	28,000	$2.20	1.1
$3.41	12,500	$3.41	0.1
	40,500		

The following table summarizes information with respect to stock options exercisable at December 31, 2009:

Year of Option Expiration	Number of Options	Weighted Average Exercise Price	Price Range
2010	12,500	$3.41	$3.41
2011	27,250	$2.20	$2.20
All Years	39,750		

The Company used the following assumptions in the Black-Scholes calculation used to measure the fair value of stock-based compensation in accordance with SFAS 123R for stock options granted in 2006. No stock options were granted in 2009 or 2008.

	2006
Risk-free interest rate	4.59%
Expected life (years)	4
Volatility	140.9%
Dividend yield	0%

9. Income Taxes

Income tax from continuing operations for 2009 and 2008 was as follows:

	2009	2008
U.S. Federal income tax benefit	$ -	$ 465,000
State and local income tax benefit	$ -	$ 88,000
Total income tax benefit	$ -	$ 553,000

	2009	2008
Current income tax benefit	$ -	$ 553,000
Deferred income tax expense	$ -	$ -
Total income tax benefit	$ -	$ 553,000

The tax effects of significant temporary differences representing deferred tax assets as of December 31, 2009 and 2008 are as follows:

	2009	2008
Property and equipment	$ (48,000)	$ (70,000)
Deferred rent	43,000	54,000
Accrued vacation	28,000	19,000
Tax credit	82,000	82,000
Deferred compensation	282,000	305,000
Net operating loss carryforward	10,941,000	8,001,000
Accrued bonus	103,000	-
Stock based compensation	31,000	27,000
Inventory adjustments	434,000	
Other	1,000	1,000
	11,897,000	8,419,000
Valuation allowance	(11,897,000)	(8,419,000)
Deferred tax asset	$ -	$ -

At December 31, 2009 and 2008, the Company had net operating loss carry forwards for U.S. federal income tax purposes of approximately $27.4 million and $18.7 million, respectively, which will begin to expire in 2019. At December 31, 2009 and 2008, the Company had net operating loss carry forwards for state income tax purposes of approximately $37.3 million and $30.5 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.

Reconciliation between actual tax expenses and taxes computed at the statutory Federal rate of 34 percent for 2009 and 2008 are as follows:

	2009	2008
U.S. Federal income tax benefit at the statutory rate of 34%	$ 3,110,000	$ 2,432,000
Effect of permanent differences	$ (7,000)	$ (25,000)
State income taxes benefit (expense), net of federal tax benefit	494,000	(39,000)
Other	(119,000)	112,000
Change in valuation allowance	(3,478,000)	(1,928,000)
Income tax benefit	$ -	$ 552,000

Tax Uncertainties

The Company recognizes a tax benefit 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 benefit 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 benefits 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, 2009 and 2008, the Company had no material unrecognized income tax benefits 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 2005, except for pre-2005 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

Government Contracts

Following the sale of InfoSpherix, the Company is no longer engaged in the performance of government contracts.

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 utilizes the D-Tagatose as a part of the Phase 3 trial of the Food and Drug Administration ("FDA") study. This phase is 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 during the year from the agreement were $1.1 million.

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, 2009, under the non-cancelable lease are as follows:

Year Ending December 31,	Operating Lease
2010	150,000
2011	155,000
2012	159,000
2013	40,000
	$ 504,000

The Company's building lease contains step rent provisions, capital improvement funding, or other tenant allowances. Minimum rental payments including allowances on this lease is 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 $165,000 and $244,000 for the years 2009 and 2008, respectively.

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, 2009, the Company's liability for both Dr. and Mrs. Levin was estimated to be $480,000 for the lifetime payments and $240,000 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 2009 and 2008, the Company paid Dr. and Mrs. Levin a combined total of $135,000 and $123,000 in post-retirement benefits.

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 Levin's during 2009 or 2008.

11. Employee Benefit Plans

Effective January 1, 1990, the Company established 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 $15,000 and $9,000 in 2009 and 2008, 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 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, 2009 and 2008 is summarized below:

		Year Ended December 31, 2009	2008
Revenues	Health Sciences	$ 1,350,000	$ 1,012,000
	Biospherics	9,000	14,000
	Total revenues	$ 1,359,000	$ 1,026,000
Operating Income (Loss) and Loss Before Income Taxes	Health Sciences	$ 691,000	$ 433,000
	Biospherics	(7,523,000)	(4,164,000)
	General and administration	(2,354,000)	(2,780,000)
	Total operating loss	(9,186,000)	(6,511,000)
	Interest income	37,000	348,000
	Interest expense	-	(2,000)
	Other expense	-	(6,000)
	Loss from continuing operations before income taxes	$ (9,149,000)	$ (6,171,000)
Identifiable Assets	Health Sciences	$ 274,000	$ 296,000
	Biospherics	8,000	21,000
	General corporate assets	9,873,000	11,944,000
	Total assets	$ 10,155,000	$ 12,261,000
Capital Expenditures	Health Sciences	$ -	$ -
	Biospherics	-	-
	General corporate assets	-	333,000
	Total capital expenditures	$ -	$ 333,000
Depreciation and Amortization	Health Sciences	$ -	$ -
	Biospherics	6,000	5,000
	General corporate assets	78,000	81,000
	Total depreciation and amortization	$ 84,000	$ 86,000

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 51% and 43% of that segment's revenue for 2009 and 2008.

Biospherics is concentrating all of its efforts on the Phase 3 clinical trial of its most promising product, D-tagatose as a treatment of Type 2 diabetes in humans. This product is in the development stage and will require substantial additional investment to bring to market.

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, 2009 through the date the financial statements were issued. During this period, the Company did not have any significant subsequent events.

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

None.

Item 9A(T). 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 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-K, 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, 2009.

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, 2009.

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 have been no changes in the Company's internal control over financial reporting during the quarter ended December 31, 2009 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. OTHER INFORMATION

An Annual Meeting of Stockholders was held on November 17, 2009, where the following actions were taken:

The following slate of Directors was elected for the 2009-2010 term:

DIRECTOR	VOTES FOR	VOTES WITHHELD	% VOTES FOR
Mr. Douglas T. Brown	11,889,893	549,862	82.43
Dr. Claire L. Kruger	11,912,733	527,022	82.59
Dr. Gilbert V. Levin	11,837,973	601,782	82.07
Dr. Robert A. Lodder, Jr.	11,892,529	547,226	82.45
Mr. Aristides Melissaratos	11,902,054	537,701	82.51
Mr. Thomas B. Peter	11,901,764	537,991	82.51
Dr. Robert J. Vander Zanden	11,900,518	539,237	82.50

Grant Thornton was reappointed as the Company's independent accountants for 2009-2010 with 12,176,976 shares voted in favor, 141,867 shares voted against, 120,911 shares abstaining.

The Board of Directors was granted the authority at any time during the following eighteen (18) months to effect a reverse stock split of the Company's issued and outstanding common stock at a ratio to be designated by the Board of Directors within a range of 1:5 to 1:20 and to reduce the number of authorized shares of common stock at a corresponding ratio (the "Reverse Stock Split"). The Reverse Stock Split was ratified, with 8,395,021 shares voted in favor, 3,920,689 shares voted against, and 124,038 shares abstaining.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The following table sets forth information concerning the Spherix Board of Directors.

Name	Age	Position	Director Since
Douglas T. Brown	56	Director	2004
Claire L. Kruger	51	Director, and Chief Executive Officer	2007
Gilbert V. Levin	85	Director, and Chairman Emeritus	1967
Aris Melissaratos	65	Director	2008
Thomas B. Peter	56	Director	2009
Robert A. Lodder, Jr.	50	Director, and President	2005
Robert J. Vander Zanden	64	Director, and Chairman of the Board	2004

Mr. Douglas T. Brown, a Board Member since 2004, brings to the Board a broad understanding of the financial and other business aspects of the Company. He is currently 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 provided 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, elected to the Spherix Incorporated Board of Directors in August 2007, and also elected Chief Executive Officer and Director of Health Sciences at that time, brings vast scientific and regulatory guidance expertise to the Board. 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. Gilbert V. Levin founded Spherix Incorporated in 1967 and served the Company in a variety of capacities from incorporation until his retirement in August 2008. In addition to his senior management experience, Dr. Levin brings to the Board the perspective of a major Company stockholder. He is currently Adjunct Professor in the Beyond Center of the College of Liberal Sciences, Arizona State University, and is an Honorary Professor at Cardiff University, Wales, UK. Dr. Levin previously served in the public health departments of Maryland, California, and the District of Columbia and, subsequently, as a research scientist and corporate official. Among his inventions are low-caloric sweeteners; biological nutrient removal (BNR) for municipal wastewater, rapid detection and identification of microorganisms; and the Labeled Release life detection experiment that landed on Mars in 1976 aboard NASA's Viking Mission. He holds a Bachelor's, Master's, and a Ph.D., all from The Johns Hopkins University, where he also served on its Board of Trustees and presently serves on its National Advisory Council for the Whiting School of Engineering. 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 A. Lodder, Spherix Incorporated Board Member since 2005, and elected President in August 2007, brings his immeasurable scientific expertise to the Board. 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, elected to the Spherix Board of Directors in February 2008, brings to the Board his immense business development and management experience. 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, Maryland, 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, elected to the Spherix Board of Directors in May 2009, brings his vast pharmaceutical and clinical trial expertise to the Board. 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, having served as a Vice President of R&D with Kraft Foods International, 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	46	Interim CFO and Treasurer
Claire L. Kruger	51	Chief Executive Officer and Chief Operating Officer
Robert A. Lodder	50	President

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

Mr. Robert L. Clayton was elected to the Office of Interim CFO in August 2007, and was elected Director of Finance and Treasurer in May 2005. Mr. Clayton previously served as 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 2009 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 2008 and 2009 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 the Spherix Executives to the total compensation of fourteen (14) companies identified by Equilar, Inc. to be peer companies to Spherix. The Equilar Report on Executive Compensation showed that Spherix Executives are not compensated at the same level as colleagues in peer companies. Based upon the fiscal health of Spherix, however, it was determined by the Compensation Committee that in 2008 and 2009 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 the Executive Officers of Spherix.

The following Summary of Compensation table sets forth the compensation paid by the Company during the two years ended December 31, 2009, 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 Compen-sation ($)	Total ($)
C. Kruger	2009	190,000	-	10,850	-	95,000	-	-	295,850
CEO and COO	2008	186,667	-	18,600	-	76,000	-	-	281,267
R. Lodder	2009	170,000	-	-	-	59,500	-	-	229,500
President	2008	166,667	-	22,500	-	68,000	-	-	257,167
R. Clayton	2009	228,031	-	-	940	-	-	-	228,971
CFO and Treasurer	2008	224,625	-	-	940	-	-	-	225,565

(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, respectively. Information regarding forfeiture and assumptions made in the valuation are disclosed in Note 7.

(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	1,000	500 (1)	$ 2.20	2/15/2011	-	-

(1) Vested on 2/16/2010.

Potential Payment Upon Termination or Change in Control

The Company has agreed to pay its officers one year salary and health and welfare (COBRA) benefits upon termination by the Company or following a change of control.

Unless otherwise agreed by the Board of Directors, the named Executive Officers 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, 2009.

Name	Fees Earned Paid in Cash ($)	Stock Awards ($)	All Other Compensation ($)	Total ($)
Douglas T. Brown	22,900	10,000	-	32,900
A. Paul Cox	4,900	-	-	4,900
Gilbert V. Levin	-	-	*	*
Aris Melissaratos	21,300	10,000	-	31,300
Thomas B. Peter	10,300	-	-	10,300
Robert J. Vander Zanden	23,500	10,000	-	33,500

* 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, 2009, the Company's liability for both Dr. and Mrs. Levin was estimated to be $480,000 for the lifetime payments and $240,000 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 2009 and 2008, the Company paid Dr. and Mrs. Levin a combined total of $135,000 and $123,000 in post-retirement benefits. In addition, Dr. Levin also received $87,000 in salaries during 2008. Dr. Levin continues to serve as a member of the Board of Directors.

Non-employee directors of Spherix Incorporated ("Spherix") receive the following annual compensation for service as a member of Spherix:

Annual Retainer	$5,000	To be paid in cash at May Board Meeting annually.
Stock Awards	$10,000	To be calculated by dividing $10,000 by the closing stock price the day of the May Board Meeting. The shares will be granted upon approval of the Board; however, the shares will be restricted and instructions will be given to the stock transfer agent that the shares may not be transferred until the one year anniversary of the Board Member's departure from the Board.
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 December 31, 2009. Except for Dr. Levin and his wife, no person is known by the Company to own beneficially more than 5% of the outstanding Common Stock. The ownership of Dr. Levin is detailed below.

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	46,318 (2)	*
Common	Robert L. Clayton	1,500 (2)	*
Common	Claire L. Kruger	30,000 (2)	*
Common	Gilbert V. Levin	2,419,307 (1) (2)	14.1%
Common	Robert A. Lodder, Jr.	27,852 (2)	*
Common	Aris Melissaratos	16,281 (2)	*
Common	Thomas B. Peter	6,666 (2)	*
Common	Robert J. Vander Zanden	37,318 (2)	*
Common	All Executive Officers and Directors as a Group	2,585,242 (2)	15.1%

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

(1) Includes shares owned by M. Karen Levin.

(2) Included in the number of shares beneficially owned by D.T. Brown, R.L. Clayton, C.L. Kruger, G.V. Levin, R.A. Lodder, A. Melissaratos, T.B. Peter, R.J. Vander Zanden and All Executive Officers and Directors as a Group are 7,500, 1,500, 0, 0, 5,000, 0, 0, 7,500 and 21,500 shares, respectively, which such persons have a right to acquire within 60 days pursuant to stock options.

As of December 31, 2009, Dr. Levin, 3170 S. Ocean Boulevard, #602S, Palm Beach, FL 33480, beneficially owned in the aggregate 2,419,307 shares of Common Stock (14.1% of the 17,150,648 outstanding shares). As principal Stockholders of the Company, Dr. Levin and his wife are considered control persons with respect to the Company.

All Directors and Executive Officers as a group, beneficial owners of 2,585,242 shares of Common Stock, owned 15.1% of the 17,150,648 outstanding shares. With the exception of Cede & Co., the holder of record for certain brokerage firms and banks, no other person is known by the Company to own beneficially more than 5% of the outstanding Common Stock of the Company.

In February 2001, the Board of Directors adopted the Rights Agreement (the "Agreement"). The 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, 2010. 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

Related Transactions

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, 2009, the Company's liability for both Dr. and Mrs. Levin was estimated to be $480,000 for the lifetime payments and $240,000 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 2009 and 2008, the Company paid Dr. and Mrs. Levin a combined total of $135,000 and $123,000 in post-retirement benefits. In addition, Dr. Levin also received $87,000 in salary during 2008. Dr. Levin continues to serve as a member of the Board of Directors.

Director Independence

The current Board of Directors consists of Mr. Douglas T. Brown, Dr. Claire L. Kruger, Dr. Gilbert V. Levin, Dr. Robert A. Lodder, Jr., Mr. Aris Melissaratos, Mr. Thomas B. 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 Fees For Fiscal 2009

The following table sets forth the fees paid by the Company to Grant Thornton LLP for audit and other services in 2009 and 2008:

	2009	2008
Audit fees	$140,000	$131,000
Tax fees	-	-
Total	$140,000	$131,000

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)	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)
(3.1)	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)
(3.2)	Amended and Restated By-Laws of Spherix Incorporated (incorporated by reference to Form 8-K dated November 23, 2009)
(10.1)	Summary of Annual Compensation of Members of the Board of Directors of Spherix Incorporated (incorporated by reference to Form 8-K dated February 29, 2008)
(10.2)	Employment Agreement dated as of August 15, 2007, by and between Claire L. Kruger and the Company (incorporated by reference to Form 10-Q dated September 30, 2007)
(10.3)	Employment Agreement dated as of August 16, 2007, by and between Robert A. Lodder and the Company (incorporated by reference to Form 10-Q dated September 30, 2007)
(10.4)	Employment Agreement dated as of August 16, 2007, by and between Robert L. Clayton and the Company (incorporated by reference to Form 10-Q dated September 30, 2007)
(10.5)	Employment Agreement dated as of August 31, 2009, by and between Ram Nimmagudda and the Company (incorporated by reference to Form 8-K filed September 3, 2009)

(10.6)	Letter Agreement dated as of July 2, 2008, by and between Gilbert V. Levin, M. Karen Levin and the Company (incorporated by reference to Form 8-K filed July 8, 2008)
(10.7)	Restated Consulting Agreement dated as of November 29, 2005, by and between M. Karen Levin and the Company (incorporated by reference to Form 8-K filed December 1, 2005)
(10.8)	Restated Consulting Agreement dated as of March 23, 2004, by and between Gilbert V. Levin and the Company (incorporated by reference to Form 10-K filed March 30, 2004)
(10.9)	1997 Stock Option Plan (incorporated by reference from the Company's Proxy Statements for its May 1998, May 2001 and May 2005 annual meetings, as filed with the Commission)
(10.10)	Rights Agreement dated as of February 16, 2001, between Spherix Incorporated and American Stock Transfer and Trust Company (incorporated by reference to Form 8-K filed March 6, 2001)
(10.11)	Stock Purchase Agreement by and among the Company, InfoSpherix and Active dated as of June 25, 2007 (incorporated by reference from the Company's Schedule 14A as filed with the Securities and Exchange Commission on July 16, 2007)
(10.12)	Lease termination agreement dated August 1, 2007, between Indian Creek Investors, LLC and the Company (incorporated by reference to Form 10-Q dated September 30, 2007)
(10.13)	Lease agreement dated October 4, 2007, between Elizabethean Court Associates III Limited Partnership and the Company (incorporated by reference to Form 10-Q dated September 30, 2007)
(10.14)	Securities Purchase Agreement dated November 16, 2009, between the Company and certain investors (incorporated by reference to Form 8-K dated November 18, 2009)
(10.15)	Manufacturing Support And Supply Agreement dated December 15, 2009, between the Company and Inalco S.p.A (incorporated by reference to Form 8-K filed December 18, 2009)
(23)	Consent of Independent Registered Public Accounting Firm
(31.1)	Certification of Chief Executive Officer of Spherix Incorporated pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
(31.2)	Certification of Chief Financial Officer of Spherix Incorporated pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
(32.1)	Certification of Chief Executive Officer of Spherix Incorporated pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(32.2)	Certification of Chief Financial Officer of Spherix Incorporated pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Spherix Incorporated
(Registrant)

Date: March 30, 2010

By: /s/ Claire L. Kruger
Claire L. Kruger
Chief Executive Officer and Chief Operating Officer

Date: March 30, 2010

By: /s/ Robert L. Clayton
Robert L. Clayton
Chief Financial Officer and Treasurer

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

/s/ Douglas T. Brown Douglas T. Brown	Director	March 30, 2010
/s/ Robert L. Clayton Robert L. Clayton	CFO and Treasurer	March 30, 2010
/s/ Claire L. Kruger Claire L. Kruger	Chief Executive Officer and Chief Operating Officer	March 30, 2010
/s/ Gilbert V. Levin Gilbert V. Levin	Director	March 30, 2010
/s/ Robert A. Lodder, Jr. Robert A. Lodder, Jr.	Director and President	March 30, 2010
/s/ Thomas B. Peter Thomas B. Peter	Director	March 30, 2010
/s/ Aris Melissaratos Aris Melissaratos	Director	March 30, 2010
/s/ Robert J. Vander Zanden Robert J. Vander Zanden	Chairman of the Board	March 30, 2010

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated March 30, 2010, with respect to the consolidated financial statements in the Annual Report of Spherix Incorporated on Form 10-K for the year ended December 31, 2009. We hereby consent to the incorporation by reference of said reports in the Registration Statements of Spherix Incorporated on Form S-8 (File No. 333-66053 effective October 23, 1998), on Forms S-3 (File No. 333-44973 effective March 23, 1998, 333-79593 effective May 28, 1999, 333-32504 effective April 19, 2000, 333-116422 effective June 14, 2004 and 333-126930 effective August 25, 2009) and on Form S-2 (File No. 333-126930 effective October 4, 2005).

/s/ Grant Thornton LLP

Baltimore, Maryland
March 30, 2010

Certification of
Chief Executive Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Claire L. Kruger, certify that:

1. I have reviewed this report on Form 10-K of Spherix Incorporated;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a–15(f) and 15d–15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Claire L. Kruger
Claire L. Kruger
Chief Executive Officer and Chief Operating Officer
March 30, 2010

Certification of
Chief Financial Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Robert L. Clayton, certify that:

1. I have reviewed this report on Form 10-K of Spherix Incorporated;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a–15(f) and 15d–15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Robert L. Clayton
Robert L. Clayton
Chief Financial Officer and Treasurer
March 30, 2010

Certification of
Chief Executive Officer
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

I, Claire L. Kruger, Chief Executive Officer and Chief Operating Officer of Spherix Incorporated (the "Company"), in compliance with Section 906 of the Sarbanes-Oxley Act of 2002, hereby certify that, to the best of my knowledge, the Company's Annual Report on Form 10-K for the period ended December 31, 2009 (the "Report") filed with the Securities and Exchange Commission:

- Fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Claire L. Kruger
Claire L. Kruger
Chief Executive Officer and Chief Operating Officer
March 30, 2010

A signed copy of this written statement required by Section 906 has been provided to Spherix Incorporated and will be retained by Spherix Incorporated and furnished to the Securities and Exchange Commission or its staff upon request.

Certification of
Chief Financial Officer
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

I, Robert L. Clayton, Chief Financial Officer and Treasurer of Spherix Incorporated (the "Company"), in compliance with Section 906 of the Sarbanes-Oxley Act of 2002, hereby certify that, to the best of my knowledge, the Company's Annual Report on Form 10-K for the period ended December 31, 2009 (the "Report") filed with the Securities and Exchange Commission:

- Fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Robert L. Clayton
Robert L. Clayton
Chief Financial Officer and Treasurer
March 30, 2010

A signed copy of this written statement required by Section 906 has been provided to Spherix Incorporated and will be retained by Spherix Incorporated and furnished to the Securities and Exchange Commission or its staff upon request.