BIOLIFE SOLUTIONS INC
Form 10-K
March 29, 2012

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-K

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

For the year ended December 31, 2011

¨ 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 0-18170

BioLife Solutions, Inc.
(Exact name of registrant as specified in its charter)

DELAWARE	94-3076866
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

3303 MONTE VILLA PARKWAY, SUITE 310, BOTHELL, WASHINGTON, 98021
(Address of registrant's principal executive offices, Zip Code)

(425) 402-1400
(Telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:
COMMON STOCK, $0.001 PAR VALUE

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

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

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 þ No ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (S232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post said files). Yes þ 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 the 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. þ

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer", "accelerated filer", and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	o	Accelerated filer	o	Non-accelerated filer	o	Smaller reporting company	þ

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ¨ No þ

As of the registrant's most recently completed second fiscal quarter, the aggregate market value of common equity held by non-affiliates was $2,554,045.

As of February 29, 2012, 69,679,854 shares of the registrant's common stock were outstanding.

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PART I

ITEMBUSINESS
1.

Note: The terms “the Company,” “us,” “we” and “our” refer to BioLife Solutions, Inc.

Overview

BioLife Solutions, Inc. ("BioLife” or the “Company”), a life sciences tools provider, was incorporated in 1998 in Delaware as a wholly owned subsidiary of Cryomedical Sciences, Inc. ("Cryomedical"), a company that was engaged in manufacturing and marketing cryosurgical products. In 2002, BioLife was merged into Cryomedical, which changed its name to BioLife Solutions, Inc. Our product offerings include:

Patented biopreservation media products for cells, tissues, and organs

Generic formulations of blood stem cell freezing media products

Custom product formulation and custom packaging services

Contract aseptic manufacturing fill and finish services

Our proprietary HypoThermosol®, CryoStor®, and generic BloodStor® biopreservation media products are marketed to regenerative medicine companies, hospital-based stem cell transplant centers, pharmaceutical companies, cord blood and adult stem cell banks, hair transplant surgeons, and suppliers of cells to the drug discovery, toxicology testing and diagnostic markets. All of our products are serum-free and protein-free, fully defined, and are manufactured under current Good Manufacturing Practices using United States Pharmacopeia (“USP”)/Multicompendial or the highest available grade components.

Our patented biopreservation media products are formulated to reduce preservation-induced, delayed-onset cell damage and death. Our platform enabling technology provides our customers significant shelf life extension of biologic source material and final cell products, and also greatly improved post-preservation cell, tissue, and organ viability and function.

The discoveries made by our scientists and consultants relate to how cells, tissues, and organs respond to the stress of hypothermic storage, cryopreservation, and the thawing process. These discoveries enabled the formulation of truly innovative biopreservation media products that protect biologic material from preservation-related cellular injury, much of which is not apparent immediately after return to normothermic body temperature. Our product formulations have demonstrated remarkable reduction in apoptotic (programmed) and necrotic (pathologic) cell death mechanisms and are enabling the clinical and commercial development of a number of innovative regenerative medicine products.

Our principal executive offices are located at 3303 Monte Villa Parkway, Suite 310, Bothell, WA 98021 and the telephone number is (425) 402-1400. Our cGMP manufacturing suite is located at 3301 Monte Villa Parkway, Suite 105, Bothell WA 98021.

Mission

We strive to be the leading provider of biopreservation tools for cells, tissues, and organs; to facilitate basic and applied research and commercialization of new therapies by maintaining the health and function of biologic source

material and finished products during the preservation process.

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Technological Overview

Stability (shelf life), and functional recovery are crucial aspects of academic research and clinical practice in the biopreservation of biologic-based source material, intermediate derivatives, and isolated/derived/expanded cellular products. Limited stability is especially critical in the regenerative medicine field, where harvested cells and tissue, if not maintained at normothermic body temperature (98.6ºF/37ºC), or stored in an effective preservation medium, will lose viability over time. Chilling (hypothermia) is used to reduce metabolism and delay degradation of harvested cells, tissues, and organs. However, subjecting biologic material to hypothermic environments produces mixed results. Although cooling successfully reduces metabolism (i.e., lowers demand for oxygen), various levels of cellular damage and death occur. To solve this problem, transplant surgeons, for example, flush the donor tissue with an engineered preservation solution designed to provide short-term biopreservation support after removal of the organ from the donor and during transportation. Clinicians engaged in regenerative medicine product development also maintain the original and derived cellular material in a solution before and after cell manipulation and processing, and during necessary transportation up to the point of infusion/injection into the patient. Traditional support solutions range from simple "balanced salt" (electrolyte) formulations to complex mixtures of electrolytes, energy substrates such as sugars, osmotic buffering agents and antibiotics. The limited stability which results from traditional biopreservation media formulations is a significant shortcoming that our optimized products address with great success.

Our scientific research activities over the last 20 years enabled a detailed understanding of the molecular basis for the cryogenic (low-temperature induced) damage/destruction of cells through apoptosis and necrosis. This research led directly to the development of our engineered and patented HypoThermosol technology. Working from the HypoThermosol technology base, we developed a family of proprietary cell, tissue and organ hypothermic storage and CryoStor cryopreservation media formulations. Our products are specifically formulated to:

Minimize cell and tissue swelling
Remove free radicals upon formation
Maintain appropriate low temperature ionic balances
Provide regenerative, high energy substrates to stimulate recovery upon warming
Avoid the creation of an acidic state (acidosis)
Inhibit the onset of apoptosis and necrosis

A key feature of our products is their “fully-defined” nature. All of our GMP manufactured products are serum-free, protein-free and packaged under aseptic processing using United States Pharmaopeia (“USP”)/Multicompendial grade or highest quality available synthetic components. All of these features benefit prospective customers by facilitating the qualification process required to incorporate our products into their manufacturing and patient delivery processes and regulatory filings.

The results of independent testing demonstrate that our patented HypoThermosol solutions significantly extend shelf-life and improve cell and tissue post-thaw viability and function, which may, in turn, improve clinical outcomes for existing and new cell and tissue therapy applications. Our proprietary HypoThermosol technology is optimized based on low temperature molecular biology principles and genetic analysis. Competing biopreservation media products are often formulated with culture media, animal serum, a sugar, and in the case of cryopreservation media, a permeating cryoprotectant such as Dimethyl Sulfoxide (“DMSO”). A key differentiator of our proprietary formulations is the tuning and optimizing of the key ionic component concentrations for hypothermic environments, as opposed to normal body temperature around 37°C, as found in culture-media or saline based formulas. Furthermore, our CryoStor formulations incorporate multiple permeating and non-permeating cryoprotectant agents. Our research and intellectual property related to the cellular stress response to cold temperature also led to discoveries in the field of cryosurgery. Specifically, through contracted research and completion of the specific aims of two National Institutes of Health (“NIH”) Small Business Innovative Research (“SBIR”) grants awarded to Cryomedical Sciences, our predecessor, and to

BioLife, we determined via in vitro experiments on cancer cells, that the combination of chemotherapy and cryosurgery was more effective than cryosurgery alone. This intellectual property was excluded from the asset sold to Endocare in 2002, and has been the subject of extensive publications.

Products

HypoThermosol®

HypoThermosol biopreservation media is a novel, engineered, optimized hypothermic storage and shipping media product.

Serum-free, protein-free HypoThermosol is designed to provide maximum storage and shipping stability for biologics at 2°-8°C.

This proprietary, optimized formulation mitigates temperature-induced molecular cell stress responses that occur during chilling and re-warming of biologics, intermediate products, and final cell products intended for research and clinical applications.

Similar to our companion freeze media CryoStor, our HypoThermosol FRS includes components that scavenge free radicals, provide pH buffering, oncotic/osmotic support, energy substrates, and ionic concentrations that balance the intracellular state at low temperatures.

Across a broad spectrum of cell and tissue types, our HypoThermosol product has proven much more effective in reducing post-preservation necrosis and apoptosis as compared to commercial and home-brew isotonic and extracellular formulations. This results in greatly extended shelf life and improved post-preservation viability.

HypoThermosol meets USP <71> Sterility and USP <85> Endotoxin testing standards, and is manufactured under cGMP.

HypoThermosol® FRS

This solution has been formulated to decrease the free radical accumulation in cells undergoing prolonged hypothermic preservation. Numerous investigators have shown that an increase in free radicals can lead to either necrosis (pathological cell death) or apoptosis (programmed cell death) in clinical conditions. HypoThermosol FRS is very effective at extending the shelf life and improving the post-preservation viability and function of numerous cell and tissue types.

HypoThermosol PURGE

HypoThermosol PURGE is a flush solution specifically designed for use during the transitions from normothermic to mild hypothermic (37°C to 20°C) to rinse culture media and native fluids from tissue and whole organ systems prior to suspension in a preservation solution. HypoThermosol PURGE is also used to support the transition from hypothermic to normothermic temperatures following the preservation interval.

CryoStor®

CryoStor cryopreservation freeze media products have been designed to mitigate temperature-induced molecular cell stress responses during freezing and thawing. CryoStor proprietary freeze media products are intended for cryopreservation of biologics at -80 to -196°C and are based on the novel HypoThermosol formula. All CryoStor products are pre-formulated with USP grade DMSO, a permeant solute cryoprotective agent which helps mitigate damage from the formation of intracellular ice.

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Across a broad spectrum of cell types, CryoStor products have proven much more effective in reducing post-preservation necrosis and apoptosis as compared to commercial and home-brew isotonic and extracellular formulations. This enables greatly improved post-thaw cell yield, viability, and recovery.

CryoStor products meet USP <71> Sterility and USP <85> Endotoxin testing standards, and are manufactured under cGMP.

CryoStor is offered in several packages and pre-formulated with DMSO in final concentrations of 2%, 5%, and 10%.

CryoStor® CS2

Pre-formulated with 2% DMSO, in some cell types, CryoStor CS2 has demonstrated biopreservation efficacy at or above the levels of competing commercial and in-house formulated freeze media, even in the presence of greatly reduced levels of DMSO.

CryoStor® CS5

Pre-formulated with 5% DMSO, CryoStor CS5 routinely outperforms competing freeze media containing 10% DMSO and is recommended for cryopreservation of most cell types.

CryoStor® CS10

Pre-formulated with 10% DMSO, CryoStor CS10 has demonstrated remarkable biopreservation efficacy in numerous cell types, including sensitive cells such as hepatocytes. CryoStor CS10 has demonstrated improved post-thaw cell survival and function in specific cell systems that may be more sensitive to cryopreservation-induced cell damage and death. This variant has also been adopted by customers with cell processing methods that might entail some dilution of the cryopreservation media.

BloodStor®

BloodStor freeze media is specifically designed for cryopreservation of stem cells isolated from umbilical cord blood, peripheral blood, and bone marrow.

BloodStor 55-5 is pre-formulated with 55% (w/v) DMSO USP, 5% (w/v) Dextran-40 USP, and water for injection (WFI) quality water. BloodStor 100 contains 100% (w/v) DMSO USP.

BloodStor products meet USP <71> Sterility and USP <85> Endotoxin testing standards, and are manufactured under cGMP.

Market Opportunity

Recent advances in cord blood banking, adult stem cell banking, cell therapy, and tissue engineering have highlighted the significant and unmet need to maintain the stability and shelf life of biologics in the development and commercialization of new regenerative medicine products and therapies. Scarce and fragile source cells or tissues are extracted from a patient, transported to a cell processing and culture laboratory, and then transported back to the clinic for patient infusion or injection. Because this entire process can take months and may involve transportation over long distances, maintenance of cellular viability is of paramount importance.

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Our target markets include:

Regenerative Medicine:

Our proprietary HypoThermosol® and CryoStor® biopreservation media products are used by customers to store, transport, and freeze biologic source material and cell-or tissue-based final products. Our scientific discoveries related to preservation-induced cell stress enabled the development and commercialization of a new class of patented biopreservation media formulations that have demonstrated broad and significant ability to extend shelf life/stability and improve post-preservation viability and function of numerous biologics.

This market is comprised of nearly 700 commercial companies and numerous other hospital-based transplant centers developing and delivering cellular therapies such as stem cells isolated from bone marrow, peripheral and umbilical cord blood as well as engineered tissue-based products.

MedMarket Diligence, LLC, estimates that the current worldwide market for regenerative medicine products and services is growing at 20 percent annually. We expect pre-formulated biopreservation media products such as our HypoThermosol and CryoStor to continue to displace “home-brew” cocktails due to increased regulatory and quality oversight, creating demand for high quality clinical grade preservation reagents that will grow at greater than the overall end market rate. We estimate that “home-brew” in-house formulated storage and freeze media comprise 80 percent of the market.

We have shipped our proprietary biopreservation media products to over 250 regenerative medicine customers. We estimate that our products are now incorporated in over 50 regenerative medicine cell or tissue-based products in pre-clinical and clinical trial stages of development.

While this market is still in an early stage, we have secured a valuable position as a supplier of critical reagents to several commercial companies. Short-term revenue can be highly variable as customer therapies navigate the regulatory approval process, but we estimate that annual revenue from a typical regenerative medicine customer could reach $1 million per year within three to five years following their product approval. Our position as the leading provider of optimized clinical grade hypothermic storage and cryopreservation freeze media has also led to increased recognition of our scientific expertise.

Drug Discovery:

Our customers in the drug screening market are pharmaceutical companies that grow and preserve various cell types to measure pharmacologic effects and toxicity of new drug compounds, and also cell suppliers that provide preserved live cells for end-user testing in pharmaceutical companies. Key customers include 8 of the 10 largest cell suppliers and numerous pharmaceutical companies.

To leverage our scientific discoveries and presence in this market, we continue to develop a proprietary disposable labware product that may address a significant workflow bottleneck in the drug screening market - insufficient supply of preserved cells required in high-throughput screening of new drug compounds. In April 2010, we filed an international patent application (PCT) to protect our intellectual property rights for our inventions which may for the first time, enable bulk freezing of cells in multiwell tissue culture plates.

Biobanking:

Our customers in this segment include public and private cord blood banks, adult stem cell banks, tissue banks, hair transplant centers, and biorepositories. Of note, since the product launch in the third quarter of 2009, we continue to

realize increased sales of our BloodStor® 55-5, a GMP version of the standard “home-brew” cord blood stem cell freeze media. Sales of CryoStor and HypoThermosol in this segment also continue to increase as we displace home-brew preservation media due to the quality and performance profile of our proprietary products.

Sales and Marketing

In addition to our direct sales activities, our products are marketed and distributed by STEMCELL Technologies, Sigma-Aldrich, and several other regional distributors under non-exclusive agreements.

Manufacturing

Our internal production facility was validated and became operational during the second quarter of 2009. In December 2009, our quality and manufacturing systems became certified to ISO 13485:2003. The systems are organized according to 21 CFR Part 820 - Quality System Regulation for Good Manufacturing Practice (GMP) of medical devices, 21 CFR Parts 210 and 211 covering GMP for Aseptic Production, Volume 4, EU Guidelines, Annex 1 for the Manufacture of Sterile Medicinal Products, ISO 13408 for aseptic processing of healthcare products, and ISO 14644, clean rooms and associated controlled environments.

Governmental Regulation

As an ancillary reagent or excipient used in the production, transportation, and infusion of our customers' regulated clinical products, HypoThermosol, CryoStor, and BloodStor are not subject to specific FDA or other non-US pre-market approval for drugs, devices, or biologics. In particular, we are not required to sponsor formal prospective, controlled clinical-trials in order to establish safety and efficacy. However, to support our current and prospective clinical customers, we comply with Current Good Manufacturing Practice ("cGMP").

To assist customers with regulatory applications, we have submitted Type II Master Files to the FDA for CryoStor and HypoThermosol, which provide the FDA with information regarding our manufacturing plant and process, our quality system, and stability and safety testing that has been performed. Customers engaged in clinical applications who wish to notify the FDA of their intention to use our products in their product development and manufacturing process can now request a cross-reference to our Master Files.

There can be no assurance that we will not be required to obtain approval from the FDA or foreign regulatory authorities prior to marketing any of our products in the future.

Intellectual Property

Currently, we have six issued U.S. patents, one issued European patent, one issued Japanese patent, and several pending US and international patent applications.

In addition to our corporate logo and name, we have registered the following marks:

HypoThermosol
GelStor
Powering the Preservation Sciences
CryoStor CS2
BioPreservation Today
CP-RXCUE
BloodStor
CryoStor

While we believe that the protection of patents and trademarks is important to our business, we also rely on a combination of trade secrets, nondisclosure and confidentiality agreements, scientific expertise and continuing technological innovation to maintain our competitive position. Despite these precautions, it may be possible for unauthorized third parties to copy certain aspects of our products and/or to obtain and use information that we regard as proprietary. The laws of some foreign countries in which we may sell our products do not protect our proprietary rights to the same extent as do the laws of the United States.

Research and Development

Currently, we employ a team of research scientists, some of whom hold Ph.D. degrees in molecular biology or related fields. Also, we conduct collaborative research with several leading academic and commercial entities in our strategic markets.

During 2011 and 2010, we spent approximately $516,500 and $318,900, respectively, on research and development activities.

Our Scientific Advisory Board (SAB) is comprised of leaders in the fields of regenerative medicine, biopreservation mechanics, quality systems, and regulatory compliance. These members advise us on our product development, quality systems, and overall marketing strategies. The current members are:

Shelly Heimfeld, Ph.D., Director of the Cellular Therapy Laboratory at the Fred Hutchinson Cancer Research Center in Seattle, and former President of the International Society of Cellular Therapy. Dr. Heimfeld is internationally recognized for research in hematopoietic-derived stem cells and the development of cell processing technologies for improved cancer therapy.

Dayong Gao, Ph.D., Professor of Biomedical Engineering at the University of Washington in Seattle. Dr. Gao has been actively engaged in cryopreservation research for more than 20 years, and has authored over 130 peer-reviewed journal articles on cryopreservation.

Darin Weber, Ph.D., a leading regulatory expert for cellular and tissue based products, and former FDA cellular therapy reviewer. Dr. Weber's knowledge of the regulatory landscape for cell and gene therapy is extensive and directly relevant to our business since our biopreservation solutions are a critical process component in several active clinical trials for new cellular therapy products.

Andrew Hinson, Vice President for Clinical and Regulatory Affairs for Lone Star Heart, Inc. (formerly CardioPolymers, Inc.) since 2004. Lone Star Heart is a venture capital backed privately-held developer of therapeutic biopolymer therapies for the treatment of heart failure and other cardiac abnormalities. Mr. Hinson is also a Director of the Company.

Scott R. Burger, M.D., Principal, Advanced Cell and Gene Therapy, a consulting firm specializing in cell, gene, and tissue-based therapies. Dr. Burger works with clients in industry and academic centers worldwide, providing assistance in process development and validation, GMP/GTP manufacturing, GMP facility design and operation, regulatory affairs, technology evaluation, and strategic analysis.

Erik J. Woods, Ph.D., Co-founder, CEO and Laboratory Director of The Genesis Bank, a private cord blood bank, and also Director of Genome Resources, an anonymous donor and client depositor sperm bank. Both laboratories are FDA registered and CLIA compliant.

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Lizabeth J. Cardwell, Principal, Compliance Consulting, LLC, a private consulting business offering quality and regulatory consulting services to cell therapy, medical device, and pharmaceutical companies.

Colleen Delaney, MSc., M.D., Director of the Cord Blood Research and Transplant Program at Fred Hutchinson Cancer Research Center (FHCRC) and Seattle Cancer Care Alliance (SCCA). She is an attending physician at Seattle Children's Hospital, Assistant Member of the Clinical Research Division of FHCRC and Assistant Professor at the University of Washington, School of Medicine.

John McMannis, Ph.D., is the Executive Vice President of Manufacturing at Mesoblast Limited (ASX: MSB; OTC ADR: MBLTY). Dr. McMannis was previously the Director, Cellular Therapy Laboratory, Department of Stem Cell Transplantation, Division of Cancer Medicine, University of Texas MD Anderson Cancer Center, Houston, Texas.

Jon Rowley, Ph.D., is the Innovation Director of Cell Processing Technologies at Lonza Biosciences, responsible for driving technology development and innovation related to commercial scale bioprocessing of therapeutic cell-based products.

Edward LeCluyse, Ph.D., is Senior Research Investigator at The Hamner Institutes for Health Sciences. Dr. LeCluyse pioneered the use of HypoThermosol® and CryoStor® in improving preservation of research designated livers and derived commercial hepatocytes marketed to the pharmaceutical industry.

Competition

The life sciences industry is highly competitive. Most of our potential competitors have considerably greater financial, technical, marketing, and other resources than we do.

Our competitors include companies such as Life Technologies Corp. (formally Invitrogen), distributors STEMCELL Technologies, Sigma Aldrich, and less than 10 other much smaller companies. However, it is our belief that in-house formulated biopreservation media, whereby the user purchases raw ingredients and manually mixes the ingredients, satisfies the large majority of the annual worldwide demand. Our products offer significant advantages over in-house formulations including, time saving, improved quality of components, more rigorous quality control release testing, and improved preservation efficacy.

We expect competition to intensify with respect to the areas in which we are involved as technical advances are made and become more widely known.

Employees

At December 31, 2011, we had 16 employees, of which six were engaged in manufacturing; three in quality assurance; two in research and development; one in sales and marketing; and four in finance and administration. Our employees are not covered by any collective bargaining agreement. We consider relations with our employees to be good.

Reports to Security Holders

This annual report on Form 10-K, including the exhibits and schedules filed as part of the annual report, may be inspected at the public reference facility maintained by the Securities and Exchange Commission ("SEC") at its public reference room at 450 Fifth Street NW, Washington, DC 20549 and copies of all or any part thereof may be obtained from that office upon payment of the prescribed fees. One may call the SEC at 1-800-SEC-0330 for further

information on the operation of the public reference room and request copies of the documents upon payment of a duplicating fee, by writing to the SEC. In addition, the SEC maintains a website that contains reports, proxy and information statements and other information regarding registrants, including the Company, that file electronically with the SEC which can be accessed at www.sec.gov.

Also, we make our periodic and current reports available, free of charge, on our website, www.BioLifeSolutions.com, as soon as reasonably practicable after such material is electronically filed with the SEC. Information available on our website is not a part of, and is not incorporated into, this annual report on Form 10-K.

Safe Harbor for Forward-Looking Statements Under the Securities Litigation Reform Act of 1995; Risk Factors

This Annual Report on Form 10-K and other reports, releases, and statements (both written and oral) issued by the Company and its officers from time to time may contain statements concerning our future results, future performance, intentions, objectives, plans, and expectations that are deemed to be "forward-looking statements." Such statements are made in reliance upon safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Our actual results, performance, and achievements may differ significantly from those discussed or implied in the forward-looking statements as a result of a number of known and unknown risks and uncertainties including, without limitation, those discussed below and in "Management's Discussion and Analysis of Financial Condition and Results of Operations." In light of the significant uncertainties inherent in such forward-looking statements, the inclusion of such statements should not be regarded as a representation by the Company or any other person that the Company's objectives and plans will be achieved. Words such as "believes," "anticipates," "expects," "intends," "may," and simi expressions are intended to identify forward-looking statements, but are not the exclusive means of identifying such statements. We undertake no obligation to revise any of these forward-looking statements.

ITEM1A. RISK FACTORS

The risks presented below may not be all of the risks we may face. These are the factors that we believe could cause actual results to be different from expected and historical results. Other sections of this report include additional factors that could have an effect on our business and financial performance. The industry in which we compete is very competitive and changes rapidly. Sometimes new risks emerge and management may not be able to predict all of them or how they may cause actual results to be different from those contained in any forward-looking statements. One should not rely upon forward-looking statements as a prediction of future results.

We may need additional capital to reach and maintain a sustainable level of positive cash flow.

We have borrowed $10.1 million from two investors and have not achieved positive cash flow. Although these investors historically have demonstrated a willingness to grant access to additional funding and renegotiate terms of previous credit arrangements, there is no assurance they will continue to do so in the future. If we are unable to collect adequate cash from customer collections and the Investors were to become unwilling to provide access to additional funds, we would need to find immediate additional sources of capital. There can be no assurance that such capital would be available, or, if available, that the terms of such financing would not be dilutive to stockholders. If we are unable to secure additional capital as circumstances require, we may not be able to continue our operations.

We have a history of losses and may never achieve or maintain profitability.

We have incurred annual operating losses since inception, and may continue to incur operating losses because new products will require substantial development, clinical, regulatory, manufacturing, marketing, and other expenditures. For the fiscal years ended December 31, 2011 and December 31, 2010, we had net losses of $(1,956,639) and $(1,983,630), respectively. As of December 31, 2011, our accumulated deficit was $(54,151,491). We may not be able to successfully commercialize our current or future products, achieve significant revenues from sales, or achieve or sustain profitability. Successful completion of our commercialization program and our transition to profitable operations is dependent upon achieving a level of revenues adequate to support our cost structure.

The market for our Common Stock is limited and our stock price is volatile.

Our common stock, traded on the OTC Bulletin Board, has historically traded at low average daily volumes, resulting in a limited market for the purchase and sale of our common stock.

The market prices of many publicly traded companies, including emerging companies in the life sciences industry, have been, and can be expected to be, highly volatile. The future market price of our common stock could be significantly impacted by:

Future sales of our common stock
Announcements of technological innovations for new commercial products by our present or potential competitors
Developments concerning proprietary rights
Adverse results in our field or with clinical tests of our products in customer applications
Adverse litigation
Unfavorable legislation or regulatory decisions
Public concerns regarding our products
Variations in quarterly operating results
General trends in the health care industry
Other factors outside of our control

There is uncertainty surrounding our ability to successfully commercialize our biopreservation media products and contract research and development and manufacturing services.

Our growth depends, in part, on our continued ability to successfully develop, commercialize and market our HypoThermosol, CryoStor, and BloodStor biopreservation media products and contract research and development and manufacturing services. Even in markets that do not require us to undergo clinical trials and obtain regulatory approvals, our products will not be used unless they present an attractive alternative to competitive products and the benefits and cost savings achieved through their use outweigh the cost of our products.

The success of our HypoThermosol, CryoStor, and BloodStor biopreservation media products is dependant, in part, on the commercial success of new regenerative medicine technologies.

Our HypoThermosol, CryoStor, and BloodStor biopreservation media products are marketed to biotechnology companies and research institutions engaged in research and development of cell, gene and tissue engineering therapies. The end-products or therapies developed by these biotechnology companies and research institutions are subject to substantial regulatory oversight by the FDA and other regulatory bodies, and many of these therapies are years away from commercialization. Thus demand, if any, for HypoThermosol, CryoStor, and BloodStor is expected to be limited for several years.

We face significant competition.

The life sciences industry is highly competitive. Many of our competitors are significantly larger than us and have greater financial, technical, research, marketing, sales, distribution and other resources than us. There can be no assurance that our competitors will not succeed in developing or marketing technologies and products that are more effective or commercially attractive than any that are being developed or marketed by us, or that such competitors will not succeed in obtaining regulatory approval, or introducing or commercializing any such products, prior to us. Such developments could have a material adverse effect on our business, financial condition and results of operations. Also, even if we are able to compete successfully, there can be no assurance that we could do so in a profitable manner.

Our success will depend on our ability to attract and retain key personnel.

In order to execute our business plan, we must attract, retain and motivate highly qualified managerial, scientific, manufacturing, and sales personnel. If we fail to attract and retain skilled scientific and sales personnel, our research and development and sales efforts will be hindered. Our future success depends to a significant degree upon the continued services of key scientific and technical personnel. If we do not attract and retain qualified personnel we will not be able to achieve our growth objectives.

If we fail to protect our intellectual property rights, our competitors may take advantage of our ideas and compete directly against us.

Our success will depend to a significant degree on our ability to secure and protect intellectual proprietary rights and enforce patent and trademark protections relating to our technology. While we believe that the protection of patents and trademarks is important to our business, we also rely on a combination of copyright, trade secret, nondisclosure and confidentiality agreements, know-how and continuing technological innovation to maintain our competitive position. From time to time, litigation may be advisable to protect our intellectual property position. However, these legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep any competitive advantage. Any litigation in this regard could be costly, and it is possible that we will not have sufficient resources to fully pursue litigation or to protect our intellectual property rights. This could result in the rejection or invalidation of our existing and future patents. Any adverse outcome in litigation relating to the validity of our patents, or any failure to pursue litigation or otherwise to protect our patent position, could materially harm our business and financial condition. In addition, confidentiality agreements with our employees, consultants, customers, and key vendors may not prevent the unauthorized disclosure or use of our technology. It is possible that these agreements will be breached or that they will not be enforceable in every instance, and that we will not have adequate remedies for any such breach. Enforcement of these agreements may be costly and time consuming. Furthermore, the laws of foreign countries may not protect our intellectual property rights to the same extent as the laws of the United States.

Because the life sciences industry is litigious, we may be sued for allegedly violating the intellectual property rights of others.

In the past, the life sciences industry has been characterized by a substantial amount of litigation and related administrative proceedings regarding patents and intellectual property rights. In addition, many life science companies have used litigation against emerging growth companies as a means of gaining a competitive advantage. Should third parties file patent applications or be issued patents claiming technology claimed by us in pending applications, we may be required to participate in interference proceedings in the U.S. Patent and Trademark Office to determine the relative priorities of our inventions and the third parties' inventions. We could also be required to participate in interference proceedings involving our issued patents and pending applications of another entity. An adverse outcome in an interference proceeding could require that we cease using the technology or license rights from prevailing third parties. Third parties may claim that we are using their patented inventions and may go to court to stop us from engaging in our normal operations and activities. These lawsuits are expensive to defend and conduct and would also consume and divert the time and attention of our management. A court may decide that we are infringing on a third party's patents and may order us to cease the infringing activity. The court could also order us to pay damages for the infringement. These damages could be substantial and could harm our business, financial condition and operating results. If we are unable to obtain any necessary license following an adverse determination in litigation or in interference or other administrative proceedings, we would have to redesign our products to avoid infringing a third party's patent and temporarily or permanently discontinue manufacturing and selling some of our products. If this were to occur, it would negatively impact future sales.

If we fail to obtain or maintain future regulatory clearances or approvals for our products, or if approvals are delayed or withdrawn, we will be unable to commercially distribute and market our products or any product modifications.

As an ancillary or excipient reagent used in the production, transportation, and infusion of our customers' regulated clinical products, HypoThermosol, CryoStor, and BloodStor are not subject to specific FDA or other non-US pre-market approval for drugs, devices, or biologics. In particular, we are not required to sponsor formal prospective, controlled clinical-trials in order to establish safety and efficacy. However, to support our current and prospective clinical customers, we comply with Current Good Manufacturing Practice ("cGMP").

There can be no assurance that we will not be required to obtain approval from the FDA, or foreign regulatory authorities, as applicable, prior to marketing any of our products in the future. During 2009, we submitted updated Type II Master Files to the FDA for CryoStor and HypoThermosol. These enhanced regulatory submissions provide the FDA with information regarding the quality of components used in the formulation of our products, the manufacturing process, our quality system, and stability testing that we have performed. Customers engaged in clinical applications who wish to notify the FDA of their intention to use our products in their product development and manufacturing process can now request a cross-reference to our Master Files.

We are dependent on outside suppliers for all of our manufacturing supplies.

We rely on outside suppliers for all of our manufacturing supplies, parts and components. Although we believe we could develop alternative sources of supply for most of these components within a reasonable period of time, there can be no assurance that, in the future, our current or alternative sources will be able to meet all of our demands on a timely basis. Unavailability of necessary components could require us to re-engineer our products to accommodate available substitutions which would increase costs to us and/or have a material adverse effect on manufacturing schedules, products performance and market acceptance.

ITEMUNRESOLVED STAFF COMMENTS
1B.

Not applicable.

ITEMPROPERTIES
2.

In July 2007, we signed a four-year lease, commencing August 1, 2007, for 4,366 square feet of office and laboratory space in Bothell, Washington at an initial rental rate of $6,367 per month. We are also responsible for paying our proportionate share of property taxes and other operating expenses as defined in the lease.

In November 2008, we signed an amended five-year lease to gain 5,798 square feet of additional clean room space for manufacturing in a facility adjacent to our corporate office facility leased in Bothell, Washington at an initial rental rate of $14,495 per month. Included in this amendment is the exercise of the renewal option for our current office and laboratory space to make the lease for such space coterminous with the new facility five-year lease period.

In March of 2012, we signed an amended lease agreement which expanded the premises leased by the Company from the Landlord to approximately 21,000 rentable square feet. The term of the lease was extended for nine (9) years commencing on July 1, 2012 and expiring on June 30, 2021. The amendment includes two (2) options to extend the term of the lease, each option is for an additional period of five (5) years, with the first extension term commencing, if at all, on July 1, 2021, and the second extension term commencing, if at all, immediately following the expiration of the first extension term. In accordance with the amended lease agreement, the Company’s monthly base rent will increase, as of July 1, 2012, to approximately $35,000. The Company will be required to pay an amount equal to the Company’s proportionate share of certain taxes and operating expenses.

ITEMLEGAL PROCEEDINGS
3.

On February 7, 2007, Kristi Snyder, a former employee of the Company filed a complaint in the New York State Supreme Court, County of Broome, against the Company alleging a breach of an employment agreement and seeking damages of up to $300,000 plus attorneys’ fees. This case currently is in discovery. The Company is vigorously

defending its position.

On April 6, 2007, the Company was served with a complaint filed by John G. Baust, the Company's former Chief Executive Officer and President, and thereafter, until January 8, 2007, the Chairman, Sr. Vice President and Chief Scientific Officer, in the New York State Supreme Court, County of Tioga, against the Company seeking, among other things, damages under his employment agreement to be determined upon trial of the action plus attorneys' fees, a declaratory judgment that he did not breach his fiduciary duties to the Company, and that his covenant not to compete is void as against public policy or unenforceable as a matter of law, and to enjoin the Company from commencing an action against him in Delaware courts seeking damages for breaches of his fiduciary obligations to the Company. The parties have engaged in extensive motion practice. By decision of December 18, 2009, Justice Tait rejected Plaintiff Baust's efforts to obtain partial summary judgment. This case currently is in discovery. The Company is vigorously defending its position.

On June 15, 2007, the Company filed a lawsuit in the State of New York Supreme Court, County of Tioga against Cell Preservation Services, Inc. ("CPSI") and Coraegis Bioinnovations, Inc. ("Coraegis"), both of which are owned and/or controlled by John M. Baust, a former employee of the Company and the son of John G. Baust, both of whose employment with the Company was terminated on January 8, 2007.

On March 15, 2004, the Company had entered into a Research Agreement with CPSI, pursuant to which CPSI took over the processing of the Company's existing SBIR grants, on behalf of the Company was to apply for additional SBIR grants and, in each case, was to perform the research with respect to such grants. In connection therewith, the Company granted to CPSI a limited license to use the Company's technology ("BioLife's Technology"), including the Company's proprietary cryopreservation solutions (collectively, "Intellectual Property"), solely for the purpose of conducting the research pertaining to the SBIR grants, and CPSI agreed to keep confidential all Company confidential information disclosed to CPSI ("Confidential Information"). On January 8, 2007, the Company informed CPSI that the Research Agreement would not be extended and would terminate in accordance with its terms on March 15, 2007.

The lawsuit states various causes of action, including, (1) repeated violations of the Research Agreement by CPSI by improperly using BioLife's Technology, Intellectual Property and Confidential Information for its own purposes, (2) the unlawful misappropriation by CPSI and Coraegis of the Company's trade secrets, (3) unfair competition on the part of CPSI and Coraegis through their unlawful misappropriation and misuse of BioLife's Technology, Intellectual Property and Confidential Information, and (4) the conversion of BioLife's Technology, Intellectual Property and Confidential Information by CPSI and Coraegis to their own use without the Company's permission.

The lawsuit seeks, among other things, (1) to enjoin CPSI from continuing to violate the Research Agreement, (2) damages as a result of CPSI's breaches of the Research Agreement, (3) to enjoin CPSI and Coraegis from any further use of the Company's trade secrets, (4) damages (including punitive damages) as a result of CPSI's and Coraegis' misappropriation of the Company's trade secrets, (5) to enjoin CPSI and Coraegis from any further use of BioLife's Technology, Intellectual Property and Confidential Information, (6) damages (including punitive damages) as a result of CPSI's and Coraegis' unfair competition against the Company, and (7) damages (including punitive damages) as a result of CPSI's and Coraegis' conversion of BioLife's Technology, Intellectual Property and Confidential Information to their own use. On September 30, 2008, Justice Jeffrey Tait issued a Letter Decision and Order which provides for a multi-phase process for discovery concerning contested discovery disclosures. The parties are awaiting Justice Tait's decision on the initial process to be used concerning these contested discovery issues. The parties have engaged in extensive motion practice. By decision of December 18, 2009, Justice Tait denied the attempt of the Defendants to dismiss Plaintiff's complaint. This case currently is in discovery. The Company is vigorously pursuing its position.

On December 4, 2007, John M. Baust, the son of John G. Baust, filed a complaint in the New York State Supreme Court, County of Tioga, against the Company and Michael Rice, the Company's Chairman and Chief Executive Officer, alleging, among other things, a breach of an employment agreement and defamation of character and seeking damages against the Company in excess of $300,000 plus attorneys fees. This case currently is in discovery. The Company is vigorously defending its position.

In December, 2011, the proceedings instituted by John G. Baust and John M. Baust before the State of New York, Division of Human Rights, were resolved by the parties entering into Settlement and Release Agreements discontinuing the proceedings without prejudice as to the claims raised by the Bausts in their aforementioned New York State Supreme Court actions, and with the express understanding that nothing shall be construed as an admission of any allegation nor constitute any admission of any fact, liability or fault as to any charges or claims.

ITEMMINE SAFETY DISCLOSURES
4.

Not applicable.

PART II

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

Price Range of Common Stock

The common stock, par value $.001 per share, of the Company ("Common Stock") is traded on the OTC Bulletin Board under the symbol "BLFS". As of December 31, 2011, there were approximately 3,000 holders of record of its common stock. The Company has never paid cash dividends on its common stock and does not anticipate that any cash dividends will be paid in the foreseeable future.

The following table sets forth, for the periods indicated, the range of high and low quarterly closing sales prices of its common stock:

	High	Low
Year ended December 31, 2010		
4th Quarter	$0.09	$0.05
3rd Quarter	0.09	0.04
2nd Quarter	0.11	0.06
1st Quarter	0.13	0.08
Year ended December 31, 2011		
4th Quarter	$0.10	$0.02
3rd Quarter	0.09	0.02
2nd Quarter	0.10	0.06
1st Quarter	0.11	0.06

ITEM 6. SELECTED FINANCIAL DATA

Not applicable.

ITEMMANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF
7. OPERATIONS

The following discussion and analysis should be read in conjunction with our audited financial statements and notes thereto that appear elsewhere in this report. This discussion contains forward-looking statements reflecting our current expectations that involve risks and uncertainties. Actual results may differ materially from those discussed in these forward-looking statements due to a number of factors, including those set forth in the section entitled “Risk Factors” and elsewhere in this report.

The statements contained in this Annual Report on Form 10-K, including statements under this section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including, without limitation, statements regarding our management’s expectations, hopes, beliefs, intentions or strategies regarding the future. The words “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” “plan” and similar expressions may identify forward-looking statements, but t absence of these words does not mean that a statement is not forward-looking. The forward-looking statements contained in this Annual Report on Form 10-K is based on our current expectations and beliefs concerning future developments and their potential effects on us. There can be no assurance that future developments affecting us will be those that we anticipated. These forward-looking statements involve a number of risks, uncertainties or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. These risks and uncertainties include those factors described in greater detail in Item 1A of Part I, “Risk Factors”. Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove incorrect, actual results may vary in material respects from those anticipated in these forward-looking statements. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws.

Overview

Management’s discussion and analysis provides additional insight into the Company and is provided as a supplement to, and should be read in conjunction with, our audited financial statements and accompanying footnotes thereto.

Our proprietary HypoThermosol®, CryoStor®, and generic BloodStor® biopreservation media products are marketed to cell therapy companies, pharmaceutical companies, cord blood banks, hair transplant surgeons, and suppliers of cells to the toxicology testing and diagnostic markets. All of our products are serum-free and protein-free, fully defined, and are manufactured under current Good Manufacturing Practices using United States Pharmacopeia (“USP”) or the highest available grade components.

Our products are formulated to reduce preservation-induced, delayed-onset cell damage and death. This platform enabling technology provides academic and clinical researchers significant extension in biologic source material shelf life and also improved post-preservation cell, tissue, and organ viability and function.

The discoveries made by our scientists and consultants relate to how cells, tissues, and organs respond to the stress of hypothermic storage, cryopreservation, and the thawing process, and enabled the formulation of truly innovative biopreservation media products that protect biologic material from preservation related cellular injury, much of which is not apparent immediately post-thaw. Our enabling technology provides significant improvement in post-preservation viability and function of biologic material. This yield improvement can reduce research, development, and commercialization costs of new cell and tissue based clinical therapies.

Critical Accounting Policies and Significant Judgments and Estimates

Management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of financial statements requires that we make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements as well as reported revenues and expenses during the reporting periods. On an ongoing basis, we evaluate estimates, including, but not limited to those related to accounts receivable allowances, determination of fair value of share-based compensation, contingencies, income taxes, and expense accruals. We base our estimates on historical experience and on other factors that we believes are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ materially from these estimates under different assumptions or conditions.

Share-based Compensation

We account for share-based compensation by estimating the fair value of share-based compensation using the Black-Scholes option pricing model on the date of grant. We utilize assumptions related to stock price volatility, stock option term and forfeiture rates that are based upon both historical factors as well as management's judgment. Non-cash compensation expense is recognized on a straight-line basis over the applicable requisite service period of one to four years, based on the fair value of such share-based awards on the grant date.

Income Taxes

We follow the asset and liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and on the expected future tax benefits to be derived from net operating loss carryforwards measured using current tax rates. A valuation allowance is established if it is more likely than not that some portion or all of the deferred tax assets will not be realized. We have not recorded any liabilities for uncertain tax positions or any related interest and penalties. Our tax returns are open to audit for the years ending December 31, 2009 to 2011.

Results of Operations

Summary of 2011 Achievements

Revenue and customer base continued to grow with shipments of CryoStor®, HypoThermosol®, and BloodStor®, to dozens of new and most existing customers in strategic direct markets of regenerative medicine, biobanking, and drug discovery. Our estimated direct and indirect customer base now totals more than 400.

Revenue from distributors grew more than 150% over 2010 and was 20% of total revenue.

The Company executed a significant confidential multi-year contract manufacturing services agreement to perform aseptic media formulation, fill, and finish of several biopreservation solutions for a new multinational customer.

Comparison of Annual Results of Operations

Percentage comparisons have been omitted within the following table where they are not considered meaningful.

Revenue and Gross Margin

	Years Ended December 31,			
	2011	2010	Change	% Change
Revenue				
Product sales	$ 2,738,729	$ 2,061,565	$ 677,164	33%
Licensing revenue	20,000	20,000	-	-
Total revenue	2,758,729	2,081,565	677,164	33%
Cost of sales	1,355,571	1,225,177	130,394	11%
Gross profit	$ 1,403,158	$ 856,388	$ 546,710	64%
Gross margin %	50.9%	41.1%		

Product Sales and Cost of Sales. Our products are sold through both direct and indirect channels. Product sales in 2011 increased compared to 2010 primarily due to significantly higher sales to our network of distributors in 2011 and increased sales to our contract manufacturing partners. Sales to our direct customers increased 19% in 2011 compared to 2010. Sales to distributors in 2011 increased 159% over sales to distributors in 2010. In addition, product sales increased due to sales to direct customers at higher selling prices in 2011 compared to 2010 for our family of products.

Cost of product sales consists of raw materials, labor and overhead expenses. Cost of sales in 2011 increased compared to 2010 due to increased product sales. Gross margin as a percentage of revenue increased in 2011 compared to 2010, primarily due to increased utilization of our manufacturing facility. Increased utilization resulted in lower overhead costs per unit manufactured being included in cost of sales. This is offset partially by certain non-recurring costs related to employee transition that occurred in the first quarter of 2011.

Licensing Revenue. We have entered into license agreements with one customer that provides this customer with limited access to our intellectual property under certain conditions. This customer paid upfront fees for the specific rights and we recognize license revenue ratably over the term of the agreements.

Revenue Concentration. We have focused our sales efforts on diversification of our customers in order to reduce the concentration of our revenue with a small number of customers. As of December 31, 2011, we estimate over 400 direct and indirect customers. In 2011, no individual customer made up more than 10% of sales. In 2010, sales to individual customers representing more than 10% of total revenue totaled approximately $535,000. This was the result of sales to two customers, one which totaled $322,000, representing 16% of total product sales, and the other which totaled $213,000, representing 10% of total product sales.

Operating Expenses

Our operating expenses for the years ended December 31, 2011 and 2010 were:

	Years Ended December 31,			
	2011	2010	Change	% Change
Research and development	$ 516,454	$ 318,897	197,557	62%
% of revenue	19%	15%		
Sales and marketing	267,080	431,007	(163,927)	-38%
% of revenue	10%	21%		
General and administrative	1,829,307	1,500,680	328,627	22%
% of revenue	66%	72%		
Total operating expenses	2,612,841	2,250,584	362,257	16%
% of revenue	95%	108%		

Research and Development. Research and Development expenses consist primarily of salaries and other personnel expenses, consulting and other outside services, laboratory supplies, and other costs. We expense all R&D costs as incurred. R&D expenses for the year ended December 31, 2011 increased compared to 2010 primarily due to higher personnel expenses related to new employees in 2011 and reclassification of one employee from marketing to research and development in January 2011. Additional increases were due to higher legal and consulting expenses as the company continues to explore uses for its products.

Sales and Marketing. Sales and marketing expenses consist primarily of salaries and other personnel-related expenses, consulting, trade shows and advertising. The 38% decrease in 2011 sales and marketing expenses compared to 2010 was due primarily to lower personnel related costs due to a reclassification of one employee from marketing to research and development in January 2011 and to reduced spending on marketing materials in 2011.

General and Administrative Expenses. General and administrative expenses consist primarily of salaries and other personnel-related expenses, non-cash stock-based compensation for administrative personnel and non-employee members of the board of directors, professional fees, such as accounting and legal, corporate insurance and facilities costs. The 16% increase in general and administrative expenses in 2011 compared to 2010 was due to higher personnel costs in 2011, higher stock compensation costs recorded for options granted in the first quarter of 2011 and an increase in legal fees in 2011, offset somewhat by a reduction in consulting expenses due to the termination of one consulting agreement in the third quarter of 2011.

Other Income (Expenses)

Interest Expense. The increase in interest expense in 2011 compared to 2010 was due to a higher average debt balance.

Amortization of Deferred Financing Costs. Amortization of deferred financing costs represents the cost of warrants issued in the fourth quarter of 2010 and the third quarter of 2011 which are being amortized over the life of the warrants.

Outlook

In 2012, BioLife management expects revenue to increase by at least 50% to approximately $4.1MM. Revenue drivers include:

- Sales to our contract manufacturing customers; the new agreement we executed in late 2011 is expected to generate $1MM - $2MM in annual contract manufacturing revenue. Shipments are expected to commence in the second quarter of 2012.

- Continued steady increases in revenue shipments to existing and new direct customers, specifically in the regenerative medicine market segment, as our customers continue to move their cell and tissue based therapies and products through the clinical trial and regulatory approval processes. Management estimates that a typical regenerative medicine customer could contribute $1MM - $2MM in annual revenue if their product is approved for worldwide commercialization. While this segment is still in an early stage, and it is impossible to predict when or if any of our customers will receive marketing and regulatory approvals, this segment represents significant upside in our business model.

- Throughout 2011 and the first quarter of 2012, BioLife executed non-exclusive agreements with several new distributors outside the US, and expects its indirect channel revenue to continue to grow at a strong rate.

Management expects slightly lower gross margin as a percentage of revenue in 2012 as a result of increased contract manufacturing, in addition to increased operating expenses associated with selling and product development activity. The company believes it will achieve positive cash flow from operations in 2012 and that cash generated from customer collections will provide sufficient funds to operate our business.

Liquidity

At December 31, 2011, we had cash and cash equivalents of $16,864 compared to cash and cash equivalents of $3,211 at December 31, 2010. At December 31, 2011, we had working capital of $581,159, compared to working capital of $474,271 at December 31, 2010. We have been unable to generate sufficient income from operations in order to meet our operating needs and have an accumulated deficit of approximately $54 million at December 31, 2011. This raises substantial doubt about our ability to continue as a going concern.

Net Cash Used in Operating Activities

During the year ended December 31, 2011, net cash used in operating activities was $989,917 compared to net cash used by operating activities of $1,252,526 for the year ended December 31, 2010. Cash used in operating activities relates primarily to funding net losses and changes in operating assets and liabilities, offset by non-cash compensation related to stock options and depreciation.

Net Cash Used in Investing Activities

Net cash used in investing activities totaled $91,430 during the year ended December 31, 2011, and $28,414 during the year ended December 31, 2010. Cash used in investing activities was due to purchase of property and equipment.

Net Cash Provided by Financing Activities

Net cash provided by financing activities totaled $1,095,000 for the year ended December 31, 2011 and $1,145,000 for the year ended December 31, 2010 and resulted from funding from the Secured Multi-Draw Term Loan Facility Agreements (the "Facility Agreements") with two shareholders, Thomas Girschweiler, a director and stockholder of the Company, and Walter Villiger, an affiliate of the Company (the "Investors"). On August 10, 2011, each Facility Agreement was increased by $500,000 to $5,250,000 (an aggregate of $10,500,000).

Off-Balance Sheet Arrangements

As of December 31, 2011, we did not have any off-balance sheet financing arrangements.

Contractual Obligations

In July 2007, we signed a four-year lease, commencing August 1, 2007, for 4,366 square feet of office and laboratory space in Bothell, WA at an initial rental rate of $6,367 per month. We are also responsible for paying our proportionate share of property taxes and other operating expenses as defined in the lease.

In November 2008, we signed an amended five-year lease to gain 5,798 square feet of additional clean room space for manufacturing in a facility adjacent to our corporate office facility leased in Bothell, WA at an initial rental rate of $14,495 per month. Included in this amendment is the exercise of the renewal option for our current office and laboratory space to make the lease for such space coterminous with the new facility five-year lease period.

In March of 2012, we signed an amended lease agreement which expanded the premises leased by the Company from the Landlord to approximately 21,000 rentable square feet. The term of the lease was extended for nine (9) years commencing on July 1, 2012 and expiring on June 30, 2021. The amendment includes two (2) options to extend the term of the lease, each option is for an additional period of five (5) years, with the first extension term commencing, if at all, on July 1, 2021, and the second extension term commencing, if at all, immediately following the expiration of the first extension term. In accordance with the amended lease agreement, the Company's monthly base rent will increase, as of July 1, 2012, to approximately $35,000. The Company will be required to pay an amount equal to the Company's proportionate share of certain taxes and operating expenses.

Going Concern

If we are unable to continue as a going concern, we may be unable to realize our assets and discharge our liabilities in the normal course of business. Factors that would negatively impact our ability to finance our operations include (a) significant reductions in revenue from our internal projections, (b) increased capital expenditures, (c) significant increases in cost of goods and operating expenses, or; (d) an adverse outcome resulting from current litigation. If we are unable to collect adequate cash from customer collections and the Investors were to become unwilling to provide access to additional funds through the amended Facilities, we would need to find immediate additional sources of capital. There can be no assurance that such capital would be available, or, if available, that the terms of such financing would not be dilutive to stockholders. If we are unable to secure additional capital as circumstances require, we may not be able to continue our operations.

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ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEX TO FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders
BioLife Solutions, Inc.
Bothell, Washington

We have audited the accompanying balance sheets of BioLife Solutions, Inc. ("the Company") as of December 31, 2011 and 2010, and the related statements of operations, shareholders' equity (deficiency), and cash flows for the years then ended. 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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company has determined that it is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits 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 includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes 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 BioLife Solutions, Inc. as of December 31, 2011 and 2010, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States.

The accompanying financial statements have been prepared assuming the Company will continue as a going concern. As discussed in Note 2 to the financial statements, the Company has been unable to generate sufficient income from operations in order to meet its operating needs and has an accumulated deficit of approximately $54 million at December 31, 2011. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans regarding those matters are also described in Note 2. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/S/ PETERSON SULLIVAN LLP

Seattle, Washington
March 29, 2012

BioLife Solutions, Inc.
Balance Sheets

	December 31, 2011	December 31, 2010
Assets		
Current assets		
Cash and cash equivalents	$ 16,864	$ 3,211
Accounts receivable, trade, net of allowance for doubtful accounts of $1,100 at December 31, 2011 and 2010	547,143	338,899
Inventories	505,956	410,486
Prepaid expenses and other current assets	90,444	62,377
Total current assets	1,160,407	814,973
Property and equipment		
Furniture and computer equipment	177,013	170,256
Manufacturing and other equipment	623,782	542,775
Subtotal	800,795	713,031
Less: Accumulated depreciation	(447,393)	(352,331)
Net property and equipment	353,402	360,700
Long term deposits	36,166	36,166
Deferred financing costs	112,042	97,220
Total assets	$ 1,662,017	$ 1,309,059
Liabilities and Shareholders’ Equity (Deficiency)		
Current liabilities		
Accounts payable	$ 403,103	$ 117,068
Accrued expenses and other current liabilities	69,582	108,015
Accrued compensation	86,563	95,619
Deferred revenue	20,000	20,000
Total current liabilities	579,248	340,702
Long term liabilities		
Promissory notes payable, related parties	10,128,127	9,033,127
Accrued interest, related parties	2,025,961	1,354,975
Deferred revenue, long term	109,167	129,167
Total liabilities	12,842,503	10,857,971
Commitments and Contingencies (Note 8)		
Shareholders' equity (deficiency)		
Common stock, $0.001 par value; 100,000,000 shares authorized, 69,679,854 shares issued and outstanding at December 31, 2011 and 2010	69,680	69,680
Additional paid-in capital	42,901,325	42,576,260
Accumulated deficit	(54,151,491)	(52,194,852)
Total shareholders' equity (deficiency)	(11,180,486)	(9,548,912)
Total liabilities and shareholders' equity (deficiency)	$ 1,662,017	$ 1,309,059

The accompanying Notes to Financial Statements are an integral part of these financial statements

BioLife Solutions, Inc.
Statements of Operations

	Years Ended December 31,	
	2011	2010
Revenue		
Product sales	$ 2,738,729	$ 2,061,565
Licensing revenue	20,000	20,000
Total revenue	2,758,729	2,081,565
Cost of product sales	1,355,571	1,225,177
Gross profit	1,403,158	856,388
Operating expenses		
Research and development	516,454	318,897
Sales and marketing	267,080	431,007
General and administrative	1,829,307	1,500,680
Total operating expenses	2,612,841	2,250,584
Operating loss	(1,209,683)	(1,394,196)
Other income (expenses)		
Interest income	46	193
Interest expense	(670,986)	(588,001)
Amortization of deferred financing costs	(74,403)	—
Loss on disposal of property and equipment	(1,613)	(1,626)
Total other income (expenses)	(746,956)	(589,434)
Net Loss	$ (1,956,639)	$ (1,983,630)
Basic and diluted net loss per common share	$ (0.03)	$ (0.03)
Basic and diluted weighted average common shares used to calculate net loss per common share	69,679,854	69,679,854

The accompanying Notes to Financial Statements are an integral part of these financial statements

BioLife Solutions, Inc.

Statements of Shareholders' Equity (Deficiency)

	Common Stock		Additional Paid-in	Accumulated	Total Shareholders' Equity
	Shares	Amount	Capital	Deficit	(Deficiency)
Balance, December 31, 2009	69,679,854	$ 69,680	$ 42,314,560	$ (50,211,222)	$ (7,826,982)
Stock-based compensation	—	—	164,480	—	164,480
Warrants issued as consideration for deferred financing costs	—	—	97,220	—	97,220
Net loss	—	—	—	(1,983,630)	(1,983,630)
Balance, December 31, 2010	69,679,854	$ 69,680	$ 42,576,260	$ (52,194,852)	$ (9,548,912)
Stock-based compensation	—	—	235,840	—	235,840
Warrants issued as consideration for deferred financing costs	—	—	89,225	—	89,225
Net loss	—	—	—	(1,956,639)	(1,956,639)
Balance, December 31, 2011	69,679,854	$ 69,680	$ 42,901,325	$ (54,151,491)	$ (11,180,486)

The accompanying Notes to Financial Statements are an integral part of these financial statements

BioLife Solutions, Inc.
Statements of Cash Flows

	Years Ended December 31, 2011	2010
Cash flows from operating activities		
Net loss	$ (1,956,639)	$ (1,983,630)
Adjustments to reconcile net loss to net cash used in operating activities		
Depreciation	97,115	71,741
Loss on disposal of property and equipment	1,613	1,626
Stock-based compensation expense	235,840	164,480
Amortization of deferred financing costs	74,403	—
Change in operating assets and liabilities		
(Increase) Decrease in		
Accounts receivable, trade	(208,244)	(23,534)
Inventories	(95,470)	(52,267)
Prepaid expenses and other current assets and long-term deposits	(28,067)	17,258
Increase (Decrease) in		
Accounts payable	286,035	(75,766)
Accrued compensation and other expenses and other current liabilities	(47,489)	59,564
Accrued interest, related parties	670,986	588,002
Deferred revenue	(20,000)	(20,000)
Net cash used in operating activities	(989,917)	(1,252,526)
Cash flows from investing activities		
Cash received from sale of property and equipment	2,100	—
Purchase of property and equipment	(93,530)	(28,414)
Net cash used in investing activities	(91,430)	(28,414)
Cash flows from financing activity		
Proceeds from notes payable	1,095,000	1,145,000
Net cash provided by financing activity	1,095,000	1,145,000
Net increase (decrease) in cash and cash equivalents	13,653	(135,940)
Cash and cash equivalents - beginning of year	3,211	139,151
Cash and cash equivalents - end of year	$ 16,864	$ 3,211
Non-cash financing activities		
Deferred financing costs from issuance of warrants (see note 6)	$ 89,225	$ 97,220

The accompanying Notes to Financial Statements are an integral part of these financial statements

NOTES TO FINANCIAL STATEMENTS

1. Organization and Significant Accounting Policies

Business

BioLife Solutions, Inc. ("BioLife," “us,” “we,” “our,” or the “Company”) develops, manufactures and markets patente hypothermic storage and cryopreservation solutions for cells and tissues. The Company’s proprietary HypoThermosol® and CryoStor® platform of solutions are marketed to academic and commercial organizations involved in cell therapy, tissue engineering, cord blood banking, drug discovery, and toxicology testing. BioLife’s products are serum-free and protein-free, fully defined, and are formulated to reduce preservation-induced, delayed-onset cell damage and death. BioLife’s enabling technology provides academic and clinical researchers significant improvements in post-thaw cell, tissue, and organ viability and function. Additionally, for our direct, distributor, and contract customers, we perform custom formulation, fill, and finish services.

Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Net loss per share

Basic net loss per common share is calculated by dividing the net loss by the weighted average number of common shares outstanding during the period. Diluted earnings per share is calculated using the weighted average number of common shares outstanding plus dilutive common stock equivalents outstanding during the period. Common stock equivalents are excluded for the years ending December 31, 2011 and 2010 since the effect is anti-dilutive due to the Company’s net losses. Common stock equivalents include stock options and warrants.

Basic weighted average common shares outstanding, and the potentially dilutive securities excluded from loss per share computations because they are antidilutive, are as follows for the years ended December 31, 2011 and 2010:

	2011	2010
Basic and diluted weighted average common stock shares outstanding	69,679,854	69,679,854
Potentially dilutive securities excluded from loss per share computations:		
Common stock options	17,873,277	14,564,815
Common stock purchase warrants	6,218,750	4,218,750

Cash and cash equivalents

Cash equivalents consist primarily of interest-bearing money market accounts. We consider all highly liquid debt instruments purchased with an initial maturity of three months or less to be cash equivalents. We maintain cash balances that may exceed federally insured limits. We do not believe that this results in any significant credit risk.

Inventories

Inventories represent biopreservation solutions and raw materials and are stated at the lower of cost or market. Cost is determined using the first-in, first-out ("FIFO") method.

Accounts receivable

Accounts receivable are stated at principal amount, do not bear interest, and are generally unsecured. We provide an allowance for doubtful accounts based on an evaluation of customer account balances past due ninety days from the date of invoicing. Accounts considered uncollectible are charged against the established allowance.

Property and equipment

Furniture and equipment are stated at cost and are depreciated using the straight-line method over estimated useful lives of three to ten years.

Deferred Financing Costs

Deferred financing costs consist of fees associated with obtaining or restructuring existing debt. These fees are amortized over the term of the related debt using the effective interest method.

Revenue recognition

We recognize product revenue, including shipping and handling charges billed to customers, upon shipment of product when title and risk of loss pass to customers. Shipping and handling costs are classified as part of cost of product sales. Generally, revenue related to licensing agreement activity is recognized ratably over the estimated term of the service period. Payments received in advance of the related licensing agreement period are recorded as deferred revenue and recognized when earned.

Income taxes

We account for income taxes using an asset and liability method which generally requires recognition of deferred tax assets and liabilities for the expected future tax effects of events that have been included in the financial statements or tax returns. Under this method, deferred tax assets and liabilities are recognized for the future tax effects of differences between tax bases of assets and liabilities, and financial reporting amounts, based upon enacted tax laws and statutory rates applicable to the periods in which the differences are expected to affect taxable income. We evaluate the likelihood of realization of deferred tax assets and provide an allowance where, in management's opinion, it is more likely than not that the asset will not be realized.

We have not recorded any liabilities for uncertain tax positions or any related interest and penalties. Our tax returns are open to audit for years ending December 31, 2008 to 2011.

Advertising

Advertising costs are expensed as incurred and totaled $16,521 and $3,064 for the years ended December 31, 2011 and 2010, respectively.

Fair value of financial instruments

We generally have the following financial instruments: cash and cash equivalents, accounts receivable, accounts payable, accrued expenses and notes payable. The carrying value of cash and cash equivalents, accounts receivable, accounts payable and accrued expenses approximate their fair value based on the short-term nature of these financial instruments. The carrying values of notes payable approximate their fair value because interest rates of notes payable approximate market interest rates.

Operating segments

As described above, our activities are directed in the life sciences field of biopreservation products and services. As of December 31, 2011 and 2010 this is the Company's only operating unit and segment.

Research and Development

Research and development costs are expensed as incurred.

Concentrations of Credit Risk

We have focused our sales efforts on diversification of our customers in order to reduce the concentration of our revenue with any one customer. In 2011, no individual customer made up more than 10% of sales. In 2010, sales to individual customers representing more than 10% of total revenue totaled approximately $535,000. This was the result of sales to two customers, one which totaled $322,000, representing 16% of total product sales, and the other which totaled $213,000, representing 10% of total product sales. At December 31, 2011, two customers accounted for approximately 29% of total gross accounts receivable, and at December 31, 2010, one customer accounted for approximately 24% of total gross accounts receivable.

Stock-based compensation

We use the Black-Scholes option pricing model as our method of valuation for share-based awards. Share-based compensation expense is based on the value of the portion of the stock-based award that will vest during the period, adjusted for expected forfeitures. Our determination of the fair value of share-based awards on the date of grant using an option pricing model is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, the expected life of the award, expected stock price volatility over the term of the award and historical and projected exercise behaviors. The estimation of share-based awards that will ultimately vest requires judgment, and to the extent actual or updated results differ from our current estimates, such amounts will be recorded in the period estimates are revised. Although the fair value of share-based awards is determined in accordance with authoritative guidance, the Black-Scholes option pricing model requires the input of highly subjective assumptions and other reasonable assumptions could provide differing results. Share-based compensation expense is recognized ratably over the applicable requisite service period based on the fair value of such share-based awards on the grant date.

The fair value of options and warrants at the date of grant is determined under the Black-Scholes option pricing model. During the years ended December 31, 2011 and 2010, the following weighted-average assumptions were used:

Assumptions	2011	2010
Risk-free rate	2.12%	2.22%
Annual rate of dividends	—	—
Historical volatility	92.91%	87.76%
Expected life	6.0 years	6.8 years

The risk-free interest rate was based on the U.S. Treasury yield curve in effect at the time of grant. We do not anticipate declaring dividends in the foreseeable future. Volatility was based on historical data. We utilize the simplified method as allowed by SEC Staff Accounting Bulletin No. 107 and 110 in determining option lives. The simplified method is used due to the fact that we have had significant structural changes in our business such that our historical exercise data may not provide a reasonable basis to estimate option lives.

We recognize compensation expense for only the portion of options that are expected to vest. Therefore, management applies an estimated forfeiture rate that is derived from historical employee termination data. The estimated forfeiture rate applied for the years ended December 31, 2011 and 2010 was 9.37% and 7.48%, respectively. If the actual number of forfeitures differs from those estimated by management, additional adjustments to compensation expense may be required in future periods. Our stock price volatility, option lives and expected forfeiture rates involve management's best estimates at the time of such determination, all of which impact the fair value of the option calculated under the Black-Scholes methodology and, ultimately, the expense that will be recognized over the life of the option.

Recent Accounting Pronouncements

There have been no new accounting pronouncements made effective during the year ended December 31, 2011 or not yet effective, that are of significance, or potential significance, to us.

2. Financial Condition

We have been unable to generate sufficient income from operations in order to meet our operating needs and have an accumulated deficit of approximately $54 million at December 31, 2011. This raises substantial doubt about our ability to continue as a going concern.

We believe that cash generated from customer collections in combination with continued access to funds from investors, will provide sufficient funds through December 31, 2012. Factors that would negatively impact our ability to finance our operations include (a) significant reductions in revenue from our internal projections, (b) increased capital expenditures, (c) significant increases in cost of goods and operating expenses, or; (d) an adverse outcome resulting from current litigation. If we are unable to collect adequate cash from customer collections and our investors were to become unwilling to provide access to additional funds, we would need to find immediate additional sources of capital. There can be no assurance that such capital would be available, or, if available, that the terms of such financing would not be dilutive to stockholders. If we are unable to secure additional capital as circumstances require, we may not be able to continue our operations.

These financial statements assume that we will continue as a going concern. If we are unable to continue as a going concern, we may be unable to realize our assets and discharge our liabilities in the normal course of business. The financial statements do not include any adjustments relating to the recoverability and classification of recorded asset

amounts nor to amounts and classification of liabilities that may be necessary should we be unable to continue as a going concern.

3. Inventories

Inventories consist of the following at December 31, 2011 and 2010:

	2011	2010
Raw materials	$ 173,510	$ 143,338
Work in progress	11,768	45,277
Finished goods	320,678	221,871
Total	$ 505,956	$ 410,486

4. Promissory Notes Payable

At December 31, 2011 and 2010, notes payable and related accrued interest consisted of the following:

	2011	2010
Notes payable to Thomas Girschweiler and Walter Villiger, secured by all assets of the Company, principal balances of all notes payable outstanding due in full in January 2013, including interest of 7%, total amount available $10,500,000	$ 10,128,127	$ 9,033,127
Total interest payable on these notes (due at maturity of the notes), long-term	$ 2,025,961	$ 1,354,975

5. Income Taxes

Income tax benefit reconciled to tax calculated at statutory rates is as follows:

	2011	2010
Federal tax (benefit) at statutory rate	$ (665,257)	$ (941,240)
Expiration of net operating loss carryforwards	1,794,072	486,462
Expiration of tax credits	33,000	114,000
Change in valuation allowance	(1,162,821)	339,840
Other	1,006	938
Provision for income taxes, net	$ ——	$ ——

At December 31, 2011 and 2010, the components of the Company's deferred taxes are as follows:

	2011	2010
Deferred tax assets (liabilities)		
Net operating loss carryforwards	$ 8,209,728	$ 9,654,193
Tax credits	—	33,000
Accrued compensation	29,431	32,448
Depreciation	173	(4,406)
Stock-based compensation	276,929	196,743
Accrued related party interest	688,827	460,692
Other	7,649	2,888
Total	9,212,737	10,375,558
Less: Valuation allowance	(9,212,737)	(10,375,558)
Net deferred tax asset	$ —	$ —

The Company has the following net operating loss tax carryforwards available at December 31, 2011:

Year of Expiration	Net Operating Losses
2012	1,570,000
2013	1,425,000
2014	1,234,000
2020	2,849,000
2021	4,168,000
2023	1,217,000
2024	646,000
2025	589,000
2026	873,000
2027	2,607,000
2028	2,512,000
2029	2,196,000
2030	1,232,000
2031	1,028,000
Total	$ 24,146,000

In the event of a significant change in the ownership of the Company, the utilization of such loss and tax credit carryforwards could be substantially limited.

6. Shareholders' Equity (Deficiency)

Warrants

The following table summarizes warrant activity for the years ended December 31, 2011 and 2010:

	Year Ended December 31, 2011		Year Ended December 31, 2010	
	Shares	Wtd. Avg. Exercise Price	Shares	Wtd. Avg. Exercise Price
Outstanding at beginning of year	4,218,750	$ 0.10	2,218,750	$ 0.12
Granted	2,000,000	0.06	2,000,000	0.07
Exercised	—	—	—	—
Forfeited	—	—	—	—
Outstanding and exercisable at end of year	6,218,750	$ 0.08	4,218,750	$ 0.10

During the years ended December 31, 2011 and December 31, 2010, the Company issued a total of 2,000,000 warrants each year to the current note holders in consideration for financing fees related to the restructuring of the existing promissory notes. The warrants were valued using the Black-Scholes option pricing model resulting in a total value of $89,225 in 2011 and $97,220 in 2010, which was recorded as deferred financing costs and is being amortized to expense over the term of the notes.

The outstanding warrants have expiration dates between May 2012 and August 2016.

Stock compensation plans

During 1998, we adopted the 1998 Stock Option Plan ("the Plan"). An aggregate of 4,000,000 shares of common stock were reserved for issuance upon the exercise of options granted under the Plan. In September 2005, the shareholders approved an increase in the number of shares available for issuance to 10,000,000 shares. The Plan expired on August 31, 2008. The options are exercisable for up to ten years from the grant date. As of December 31, 2011, there were outstanding options to purchase 6,300,000 share of Company common stock under the Plan.

Subsequent to the expiration of the Plan, the Company issued, outside of the Plan, non-incentive stock options for an aggregate of 11,573,227 (net of cancellations) shares of Company common stock. All non-incentive stock options issued in 2011 and 2010 were issued outside of the Plan.

Certain options awarded during 2011 and 2010 contain provisions which allow for the automatic proportionate adjustment of the number of shares covered and the exercise price of each share in the event that the Company changes its shares of common stock by a stock dividend, stock split, combination, reclassification, exchange, merger or consolidation.

The following is a summary of stock option activity under the Plan and outside of the Plan for 2011 and 2010, and the status of stock options outstanding at December 31, 2011 and 2010:

	Year Ended December 31, 2011		Year Ended December 31, 2010	
	Shares	Wtd. Avg. Exercise Price	Shares	Wtd. Avg. Exercise Price
Outstanding at beginning of year	14,564,815	$ 0.09	9,265,000	$ 0.09
Granted	6,220,873	0.08	5,324,815	0.10
Exercised	-	-	-	-
Forfeited	(2,912,461)	(0.08)	(25,000)	(0.25)
Outstanding at end of year	17,873,227	$ 0.08	14,564,815	$ 0.09
Stock options exercisable at year end	9,667,990	$ 0.08	7,896,510	$ 0.08

Weighted average fair value of options granted was $0.06 and $0.08 per share for the years ended December 31, 2011 and 2010, respectively.

As of December 31, 2011, there was $5,750 of aggregate intrinsic value of outstanding stock options, including $2,625 of aggregate intrinsic value of exercisable stock options. Intrinsic value is the total pretax intrinsic value for all “in-the-money” options (i.e., the difference between the Company’s closing stock price on the last trading day of 2011 and the exercise price, multiplied by the number of shares) that would have been received by the option holders had all option holders exercised their options as of December 31, 2011. This amount will change based on the fair market value of the Company’s stock.

The following table summarizes information about stock options outstanding at December 31, 2011:

Range of Exercise Prices	Number Outstanding at December 31, 2011	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price
$ 0.04-$0.07	2,800,000	6.20	$ 0.06
$ 0.08-$0.09	10,728,768	7.22	$ 0.08
$ 0.10-$0.25	4,344,459	7.67	$ 0.11
	17,873,227	7.23	$ 0.08

Total unrecognized compensation cost at December 31, 2011 of $330,319 is expected to be recognized over a weighted average period of 2.1 years.

When options and warrants are exercised, it is the Company’s policy to issue new shares.

7. Related Party Transactions

We incurred $52,132 and $21,902 in legal fees during the years ended December 31, 2011 and 2010, respectively, for services provided by Breslow & Walker, LLP in which Howard S. Breslow, a director and stockholder of the Company, is a partner. At December 31, 2011 and 2010, accounts payable included $22,631 and $149, respectively, due to Breslow & Walker, LLP for services rendered.

We incurred $56,000 and $96,000 in consulting fees during the years ended December 31, 2011 and 2010, respectively, to Roderick de Greef, a director of the Company, for the task of overseeing the Company's financing activities, internal accounting functions and SEC reporting, and assisting in the search for, and reviewing, strategic alternatives, on a part-time basis. At December 31, 2011 and 2010, accounts payable included $2,500 and $0, respectively, due to Mr. de Greef for services rendered.

The agreement with Mr. De Greef was terminated in August of 2011.

8. Commitments and Contingencies

Leases

In July 2007, we signed a four-year lease, commencing August 1, 2007, for 4,366 square feet of office and laboratory space in Bothell, Washington at an initial rental rate of $6,367 per month. We are also responsible for paying a proportionate share of property taxes and other operating expenses as defined in the lease.

In November 2008, we signed an amended five-year lease to gain 5,798 square feet of additional clean room space for manufacturing in a facility adjacent to our corporate office facility leased in Bothell, Washington at an initial rental rate of $14,495 per month. Included in this amendment is the exercise of the renewal option for our current office and laboratory space to make the lease for such space coterminous with the new facility five-year lease period.

The following is a schedule of future minimum lease payments required under the facility leases as of December 31, 2011:

Year Ending December 31	
2012	$ 285,049
2013	296,451
2014	77,077
Total	$ 658,577

Rental expense for this facility lease for the years ended December 31, 2011 and 2010 totaled $368,273 and $345,404, respectively. These amounts include the Company's proportionate share of property taxes and other operating expenses as defined by the lease.

Employment agreements

We have employment agreements with the Chief Executive Officer and Chief Financial Officer of the Company which automatically renews for successive one year periods in the event either party does not send the other a "termination notice" not less than 90 days prior to the expiration of the initial term or any subsequent term. The agreements provide for certain minimum compensation per month and incentive bonuses at the discretion of the Board of Directors. Under certain conditions, we may be required to continue to pay the base salary under the agreement for a period of up to two years.

Litigation

On February 7, 2007, Kristi Snyder, a former employee of the Company filed a complaint in the New York State Supreme Court, County of Broome, against the Company alleging a breach of an employment agreement and seeking damages of up to $300,000 plus attorneys' fees. This case currently is in discovery. The Company is vigorously defending its position.

On April 6, 2007, the Company was served with a complaint filed by John G. Baust, the Company's former Chief Executive Officer and President, and thereafter, until January 8, 2007, the Chairman, Sr. Vice President and Chief Scientific Officer, in the New York State Supreme Court, County of Tioga, against the Company seeking, among other things, damages under his employment agreement to be determined upon trial of the action plus attorneys' fees, a declaratory judgment that he did not breach his fiduciary duties to the Company, and that his covenant not to compete is void as against public policy or unenforceable as a matter of law, and to enjoin the Company from commencing an action against him in Delaware courts seeking damages for breaches of his fiduciary obligations to the Company. The parties have engaged in extensive motion practice. By decision of December 18, 2009, Justice Tait rejected Plaintiff Baust's efforts to obtain partial summary judgment. This case currently is in discovery. The Company is vigorously defending its position.

On June 15, 2007, the Company filed a lawsuit in the State of New York Supreme Court, County of Tioga against Cell Preservation Services, Inc. ("CPSI") and Coraegis Bioinnovations, Inc. ("Coraegis"), both of which are owned and/or controlled by John M. Baust, a former employee of the Company and the son of John G. Baust, both of whose employment with the Company was terminated on January 8, 2007.

On March 15, 2004, the Company had entered into a Research Agreement with CPSI, pursuant to which CPSI took over the processing of the Company's existing SBIR grants, on behalf of the Company was to apply for additional SBIR grants and, in each case, was to perform the research with respect to such grants. In connection therewith, the Company granted to CPSI a limited license to use the Company's technology ("BioLife's Technology"), including the Company's proprietary cryopreservation solutions (collectively, "Intellectual Property"), solely for the purpose of conducting the research pertaining to the SBIR grants, and CPSI agreed to keep confidential all Company confidential information disclosed to CPSI ("Confidential Information"). On January 8, 2007, the Company informed CPSI that the Research Agreement would not be extended and would terminate in accordance with its terms on March 15, 2007.

The lawsuit states various causes of action, including, (1) repeated violations of the Research Agreement by CPSI by improperly using BioLife's Technology, Intellectual Property and Confidential Information for its own purposes, (2) the unlawful misappropriation by CPSI and Coraegis of the Company's trade secrets, (3) unfair competition on the part of CPSI and Coraegis through their unlawful misappropriation and misuse of BioLife's Technology, Intellectual Property and Confidential Information, and (4) the conversion of BioLife's Technology, Intellectual Property and Confidential Information by CPSI and Coraegis to their own use without the Company's permission.

The lawsuit seeks, among other things, (1) to enjoin CPSI from continuing to violate the Research Agreement, (2) damages as a result of CPSI's breaches of the Research Agreement, (3) to enjoin CPSI and Coraegis from any further use of the Company's trade secrets, (4) damages (including punitive damages) as a result of CPSI's and Coraegis' misappropriation of the Company's trade secrets, (5) to enjoin CPSI and Coraegis from any further use of BioLife's Technology, Intellectual Property and Confidential Information, (6) damages (including punitive damages) as a result of CPSI's and Coraegis' unfair competition against the Company, and (7) damages (including punitive damages) as a result of CPSI's and Coraegis' conversion of BioLife's Technology, Intellectual Property and Confidential Information to their own use. On September 30, 2008, Justice Jeffrey Tait issued a Letter Decision and Order which provides for a multi-phase process for discovery concerning contested discovery disclosures. The parties are awaiting Justice Tait's decision on the initial process to be used concerning these contested discovery issues. The parties have engaged in extensive motion practice. By decision of December 18, 2009, Justice Tait denied the attempt of the Defendants to dismiss Plaintiff's complaint. This case currently is in discovery. The Company is vigorously pursuing its position.

On December 4, 2007, John M. Baust, the son of John G. Baust, filed a complaint in the New York State Supreme Court, County of Tioga, against the Company and Michael Rice, the Company's Chairman and Chief Executive Officer, alleging, among other things, a breach of an employment agreement and defamation of character and seeking damages against the Company in excess of $300,000 plus attorneys fees. This case currently is in discovery. The Company is vigorously defending its position.

We have not made any accrual related to future litigation outcomes as of December 31, 2011 or 2010.

9. Supplemental Cash Flow Disclosures

Actual cash payments

No cash was paid for either interest expense or income taxes for the years ended December 31, 2011 and 2010.

Non-cash investing and financing activities

During the years ended December 31, 2011 and December 31, 2010, the Company issued a total of 2,000,000 warrants each year to the current note holders in consideration for financing fees related to the restructuring of the existing promissory notes. The warrants were valued using the Black-Scholes option pricing model resulting in a total value of $89,225 in 2011 and $97,220 in 2010, which was recorded as deferred financing costs and is being amortized to expense over the term of the notes.

10. Subsequent Events

Additional Notes Payable

Subsequent to December 31, 2011, the Company received an additional $175,000 in total from the Investors pursuant to the amended notes payable described in Note 4.

Stock Options Issued

In February 2012, the Company issued ten-year options to employees and directors to purchase 1,100,000 common shares.

Amended Lease Agreement

In March of 2012, we signed an amended lease agreement which expanded the premises leased by the Company from the Landlord to approximately 21,000 rentable square feet. The term of the lease was extended for nine (9) years commencing on July 1, 2012 and expiring on June 30, 2021. The amendment includes two (2) options to extend the term of the lease, each option is for an additional period of five (5) years, with the first extension term commencing, if at all, on July 1, 2021, and the second extension term commencing, if at all, immediately following the expiration of the first extension term. In accordance with the amended lease agreement, the Company's monthly base rent will increase, as of July 1, 2012, to approximately $35,000. The Company will be required to pay an amount equal to the Company's proportionate share of certain taxes and operating expenses.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that material information required to be disclosed in our periodic reports filed under the Securities Exchange Act of 1934, as amended, or 1934 Act, is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and to ensure 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. During the quarter ended December 31, 2011 we carried out an evaluation, under the supervision and with the participation of our management, including the chief executive officer and chief financial officer, as required by the rules and regulations under the 1934 Act, of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rule 13a-15(e) under the 1934 Act. Based on this evaluation, our chief executive officer and chief financial officer concluded that, as of December 31, 2011, our disclosure controls and procedures were effective.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) under the Securities Exchange Act of 1934, as amended. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of the financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. This process includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of the internal control over financial reporting to future periods are subject to risk that the internal control may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

Our management, including our chief executive officer and chief financial officer, conducted an evaluation of the design effectiveness of our internal control over financial reporting based on the framework in "Internal Control — Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"), as of December 31, 2011. Based on our assessment, we conclude that as of December 31, 2011 our internal control over financial reporting was effective.

This annual report does not include an attestation report of our registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by our registered public accounting firm pursuant to rules of the Securities and Exchange Commission that permit us to provide only management's report

in this annual report.

Changes in Internal Control Over Financial Reporting

There were no changes that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting during the year ended December 31, 2011.

Limitations on Controls

Management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all error and fraud. Any control system, no matter how well designed and operated, is based upon certain assumptions and can provide only reasonable, not absolute, assurance that our objectives will be met. Further, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected.

ITEMOTHER INFORMATION
9B.

None.

PART III

ITEMDIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE
10.

The following table and text set forth the names and ages of all directors and executive officers of the Company as of March 29, 2012. The Board of Directors is comprised of only one class. All of the directors will serve until the next annual meeting of shareholders, and until their successors are elected and qualified, or until their earlier death, retirement, resignation or removal. There are no family relationships among directors and executive officers. Also provided herein are brief descriptions of the business experience of each director and executive officer during the past five years (based on information supplied by them) and an indication of directorships held by each director in other companies subject to the reporting requirements under the Federal securities laws.

Name	Age	Position and Offices With the Company
Michael Rice	49	Chief Executive Officer, President, and Director
Daphne Taylor	45	Chief Financial Officer
Howard S. Breslow	72	Director, Secretary
Roderick de Greef	51	Director
Thomas Girschweiler	54	Director
Raymond Cohen	52	Director
Andrew Hinson	46	Director

Michael Rice has been President and Chief Executive Officer and a director of the Company since August 2006, and Chairman of the board of directors since August 2007. From October 2004 to August 2006, Mr. Rice served as Sr. Business Development Manager for the Medical & Wireless Products Group at AMI Semiconductor, Inc. (NASDAQ: AMIS). Prior thereto, from October 2000 to October 2004, he served as Director of Marketing & Business Development, Western Region Sales Manager, and Director, Commercial Sales at Cardiac Science, Inc. (NASDAQ: CSCX); from May 1998 to October 2000 as Vice President, Sales and Marketing at TEGRIS Corporation; and from May 1986 to May 1998 in several sales and marketing roles at Physio Control Corporation.

Daphne Taylor has been Vice President, Finance & Administration, and Chief Financial Officer since August 2011, and from March 2011 through July 2011 she served as Corporate Controller. Prior to joining BioLife, Ms. Taylor served as Vice President, Corporate Controller and Chief Accounting Officer of Cardiac Science Corporation from November 2005 through January 2009. From April 2002 through November 2005, she held various positions, including Vice President and Corporate Controller for LookSmart, Inc.

Howard S. Breslow has served as a director of the Company since July 1988. He has been a practicing attorney in New York City for more than 40 years and is a member of the law firm of Breslow & Walker, LLP, New York, NY, which firm serves as general counsel to the Company.

Mr. de Greef has been a director of the Company since June 2000, and from July 2007 through August 2011,was retained by the Company to provide strategic and financial consulting services. Mr. de Greef provides corporate advisory services to several other companies, including Cambridge Heart, Inc., where he has been employed as Chairman of the board of directors since November 2008. From October 2005 to July 2007, Mr. de Greef was Chief Financial Officer of Cambridge Heart, and Vice President of Finance and Administration from June 2006 to July 2007. From February 2001 to September 2005, Mr. de Greef was Executive Vice President and Chief Financial Officer of Cardiac Science, Inc., which merged with Quinton Cardiology, Inc. From 1995 to 2001, Mr. de Greef provided independent corporate finance advisory services to a number of early-stage companies, including BioLife Solutions and Cardiac Science. From 1986 to 1995, Mr. de Greef served as Vice President of Finance and Chief Financial Officer of several publicly held, development stage medical technology companies. Mr. de Greef is also a member of the board of directors of Irvine, CA based Endologix, Inc., and Amsterdam based Elephant Talk Communications, Inc. Mr. de Greef has a B.A. in Economics and International Relations from California State University at San Francisco and earned his M.B.A. from the University of Oregon.

Thomas Girschweiler joined the Board in 2003. Mr. Girschweiler has been engaged in corporate financing activities on his own behalf since 1996. From 1981 to 1996 he was an investment banker with Union Bank of Switzerland. Mr. Girschweiler is a graduate of the Swiss Banking School.

Raymond W. Cohen joined the Board in May 2006. Mr. Cohen is an Accredited Public Company Director and currently serves as the CEO and member of the Board of Directors of Vessix Vascular, Inc., a venture backed developer of a novel RF balloon catheter technology for treatment of hypertension. Mr. Cohen also serves as the Chairman of the Board of Directors of Syncroness, Inc., a private engineering and product development firm. In addition, Mr. Cohen is a member of the Board of Directors of LoneStar Heart, Inc. (formerly CardioPolymers, Inc.) a privately-held developer of novel biotherapeutics for the treatment of congestive heart failure and also serves an advisor to Fjord Ventures, LLC., a life science incubator. Previously, Mr. Cohen served as Chairman and Chief Executive Officer of publicly-traded Cardiac Science, Inc., which in 2004 was ranked as the 4th fastest growing technology company in North America on Deloitte & Touche's Fast 500 listing. In 2008, Mr. Cohen was named by AeA as the Private Company Life Science CEO of the Year. Mr. Cohen was named Entrepreneur of the Year in 2002 by the Orange County Business Journal and was a finalist for Ernst & Young's Entrepreneur of the Year in the medical company category in 2004. Mr. Cohen is a member of a number of local Southern California organizations, notably the Forum of Corporate Directors and the Keck Graduate Institute BioScience MBA program. Mr. Cohen holds a B.S. in Business Management from Binghamton University.

Andrew Hinson joined the Board in February 2007. Currently, he is the Vice President for Clinical and Regulatory Affairs for LoneStar Heart, Inc., a developer of proprietary biopolymer, small molecule and cellular-based therapies to effectively treat heart failure and other cardiac conditions. Mr. Hinson has diverse experience in the cell and gene therapy markets and extensive experience with regulatory and clinical trial issues for new therapies for cardiac, neurologic, and gastrointestinal applications.

Committees of the Board

The Audit Committee's role includes the oversight of our financial, accounting and reporting processes; our system of internal accounting and financial controls; and our compliance with related legal, regulatory and ethical requirements. The Audit Committee oversees the appointment, compensation, engagement, retention, termination and services of our independent registered public accounting firm, including conducting a review of its independence; reviewing and

approving the planned scope of our annual audit; overseeing our independent registered public accounting firm's audit work; reviewing and pre-approving any audit and non-audit services that may be performed by our independent registered public accounting firm; reviewing with management and our independent registered public accounting firm the adequacy of our internal financial and disclosure controls; reviewing our critical accounting policies and the application of accounting principles; and monitoring the rotation of partners of our independent registered public accounting firm on our audit engagement team as required by regulation.

Also, the Audit Committee's role includes meeting to review our annual audited financial statements and quarterly financial statements with management and our independent registered public accounting firm. The Audit Committee has the authority to obtain independent advice and assistance from internal or external legal, accounting and other advisors, at BioLife's expense.

Each member of the Audit Committee meets the independence criteria prescribed by applicable regulation and the rules of the SEC for audit committee membership and is an "independent director" within the meaning of applicable standards. Each Audit Committee member meets the SEC's financial literacy requirements. The Board of Directors has determined that Mr. de Greef is an "audit committee financial expert" as defined in Item 407(d)(5)(ii) of Regulation S-K.

The Audit Committee acts pursuant to a written charter, which complies with the applicable provisions of the Sarbanes-Oxley Act of 2002 and related rules of the SEC, a copy of which can be found on our website at http://biolifesolutions.com/biopreservation-media/2012ac.pdf.

The Compensation Committee sets and administers the policies governing all compensation of our executive officers, including cash and non-cash compensation and equity compensation programs, and is responsible for making recommendations to the Board concerning Board and committee compensation. Also, the Compensation Committee reviews and approves equity-based compensation grants to our non-executive officer employees. In addition, the Compensation Committee is responsible for oversight of our overall compensation plans and benefit programs, as well as the approval of all employment, severance and change of control agreements and plans applicable to our executive officers. Furthermore, the Compensation Committee has the authority to obtain independent advice and assistance from internal or external legal, accounting and other advisors, at BioLife's expense.

The members of the Compensation Committee are independent directors within the meaning of applicable standards, and all of the members are "non-employee directors" within the meaning of Rule 16b-3 under the Securities Exchange Act of 1934 (the "Exchange Act") and "outside directors" for purposes of Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Code"). The Compensation Committee acts pursuant to a written charter, a copy of which can be found on our website at http://biolifesolutions.com/biopreservation-media/2012cc.pdf.

The Nominating and Corporate Governance Committee is responsible for reviewing suggestions of candidates for director made by directors and others, identifying individuals qualified to become Board members, and recommending to the Board the director nominees for the next annual meeting of shareholders, recommending to the Board director nominees for each committee of the Board, recommending to the Board the corporate governance principles applicable to the Company, and overseeing the annual evaluation of the Board and management. Pursuant to the Nominating and Corporate Governance Committee Charter, there is no difference in the manner in which a nominee recommended by a stockholder or otherwise is evaluated.

The Nominating and Corporate Governance Committee's primary purpose is to evaluate candidates for membership on our Board and make recommendations to our Board regarding candidates; make recommendations with respect to the composition of our Board and its committees; review and make recommendations regarding the functioning of our Board as an entity; recommend corporate governance principles applicable to BioLife; manage periodic review, discussion and evaluation of the performance of our Board, its committees and its members; assess the independence of our directors; review the board memberships of other entities held by members of the Board and review and approve such memberships for our executive officers. Also, the Nominating and Corporate Governance Committee assists our Board in reviewing and assessing succession planning for our executive officers. The Nominating and Corporate Governance Committee has the authority to obtain independent advice and assistance from internal or external legal, accounting and other advisors, at BioLife's expense.

The members of our Nominating and Corporate Governance Committee are independent directors within the meaning of applicable standards. The Nominating and Corporate Governance Committee operates pursuant to a written charter, a copy of which can be found on our website at http://biolifesolutions.com/biopreservation-media/2012gn.pdf.

In carrying out its function to nominate candidates for election to our Board, the Nominating and Corporate Governance Committee considers the Board's mix of skills, experience, character, commitment and diversity—diversity being broadly construed to mean a variety of opinions, perspectives and backgrounds, such as gender, race and ethnicity differences, as well as other differentiating characteristics, all in the context of the requirements and needs of our Board at that point in time. In reviewing potential candidates, the Committee will also consider all relationships between any proposed nominee and any of BioLife's stockholders, competitors, customers, suppliers or other persons with a relationship to BioLife. The Nominating and Corporate Governance Committee believes that each candidate should be an individual who has demonstrated integrity and ethics in such candidate's personal and professional life, has an understanding of elements relevant to the success of a publicly traded company and has established a record of professional accomplishment in such candidate's chosen field.

The Nominating and Corporate Governance Committee's methods for identifying candidates for election to our Board include the solicitation of ideas for possible candidates from a number of sources, including from members of our Board, our executive officers, individuals who our executive officers or Board members believe would be aware of candidates who would add value to our Board and through other research. The Nominating and Corporate Governance Committee may, from time to time, retain, for a fee, one or more third-party search firms to identify suitable candidates. The Nominating and Corporate Governance Committee will consider all candidates identified through the processes described above, and will evaluate each candidate, including incumbents, based on the same criteria.

Meetings of the Board and Committees

During 2011, our Board held four meetings, and its three standing committees—Audit Committee, Compensation Committee, and Nominating and Corporate Governance Committee—collectively held six meetings. Each Director attended or participated in 100% of the meetings of the Board of Directors held during the year ended December 31, 2011.

The following table sets forth the three standing committees of our Board, the members of each committee, and the number of meetings held by our Board and the committees during 2011:

Name	Board	Audit	Compensation	Nominating and Corporate Governance
Mr. Rice	Chair			
Mr. Breslow	X			Chair
Mr. de Greef (financial expert)	X	X		X
Mr. Cohen	X	Chair	Chair	
Mr. Girschweiler	X	X	X	
Mr. Hinson	X		X	X
Number of meetings held in 2011	4	4	2	None

The members of the respective committees satisfy the applicable qualification requirements of the SEC and the Code of Ethics.

AUDIT COMMITTEE PRE-APPROVAL OF SERVICES PERFORMED BY OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

It is the policy of our Audit Committee to pre-approve all audit and permissible non-audit services to be performed by Peterson Sullivan, our independent registered accounting firm. All audit fees and all other fees provided by Peterson Sullivan during 2011 and 2010 were pre-approved by the Audit Committee.

CORPORATE GOVERNANCE

Code of Ethics

We believe in sound corporate governance practices and have always encouraged our employees, including officers and directors to conduct business in an honest and ethical manner. Additionally, it has always been our policy to comply with all applicable laws and provide accurate and timely disclosure.

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Accordingly, the Board has adopted a formal written code of ethics for all employees. The Board has adopted an additional corporate code of ethics for its Chief Executive Officer, Chief Financial Officer and other senior financial officers, which is a "code of ethics" as defined by applicable SEC rules. The Code of Ethics is publicly available on our website at http://biolifesolutions.com/biopreservation-media/CODE-OF-ETHICS-FOR-CEO-AND-SENIOR-FINANCIAL-OFFICERS1. The code of ethics is designed to deter wrongdoing and promote honest and ethical conduct and compliance with applicable laws and regulations. These codes also incorporate what we expect from our executives so as to enable us to provide accurate and timely disclosure in our filings with the Securities and Exchange Commission and other public communications. Any amendments made to the Code of Ethics will be available on our website.

Section 16(a) Beneficial Ownership Reporting Compliance

Our executive officers, directors, and beneficial owners of more than 10% of any class of its equity securities registered pursuant to Section 12 of the Securities Exchange Act of 1934 (collectively, the "Reporting Persons") are required to file reports of ownership and changes in beneficial ownership of the Company's equity securities with the Securities Exchange Commission. Copies of those reports also must be furnished to us. Based solely on review of the copies of such forms furnished by the Company, we believe that during the year ended December 31, 2011, the Reporting Persons complied with all applicable Section 16(a) filing requirements.

ITEMEXECUTIVE COMPENSATION
11.

The following table sets forth certain information concerning the compensation paid by the Company to its Chief Executive Officer, Chief Financial Officer and any additional executive officers that received salary and bonus payments in excess of $100,000 during the fiscal year ended December 31, 2011 (collectively the "Named Executive Officers").

SUMMARY COMPENSATION TABLE

Name and Principal Positions (a)	Year (b)	Salary ($) (c)	Bonus ($) (d)	Stock Awards ($) (e)	Option Awards ($) (f) (1)	Non-Equity Incentive Plan Compensation ($) (g)	Nonqualified Deferred Compensation Earnings ($) (h)	All Other Compensation ($) (i)	Total ($) (j)
Michael Rice	2011	270,000	—	—	161,220(2)	—	—	—	431,220
President, Chief Executive Officer and Director (8/06 –present)	2010	270,000	—	—	92,305(3)	—	—	—	362,305
Daphne Taylor Chief Financial Officer (3/11 – present)	2011	102,087	—	—	44,192(4)	—	—	—	146,279

(1)See Note 1 to Notes to Financial Statements for a description on the valuation methodology of stock option awards.

(2)Amount is a result of options to purchase 400,000 shares at $0.08 per share granted to officer on 2/25/11, which options vested 100% upon grant of the awards, and options to purchase 2,247,939 shares at $0.08 per share granted to officer on 2/25/11, which options vest at the end of the quarter the Company achieves cash flow break even.

(3)Amount is a result of options to purchase 1,190,878 shares at $0.10 per share granted to officer on 2/5/2010, which options vest to the extent of 297,719 shares on 2/5/2011 and, thereafter, in monthly increments of 15,938 shares.

(4)Amount is the result of options to purchase 250,000 shares at $0.10 per share granted to officer on 3/1/11, which options vest to the extent of 62,500 shares on March 1, 2012, March 1, 2013, March 1, 2014 and March 1, 2015, and options to purchase 500,000 shares at $0.063 per share granted to officer on August 17, 2011, which options vest to the extent of 125,000 shares on 8/17/12, and, thereafter, in monthly increments of 10,417 shares.

Employment Agreements

We have an employment agreement with Michael Rice, our President and Chief Executive Officer, which automatically renews for successive one year periods in the event either party does not send the other a "termination notice" not less than 90 days prior to the expiration of the initial term or any subsequent term. The agreement provided for a salary of $200,000 per year and an incentive bonus based on certain quarterly milestones, to be determined by the Board of Directors. Mr. Rice also received a ten-year incentive stock option to purchase 1,500,000 shares of common stock at $.07 per share (the fair market value on the date of grant), which vested to the extent of 500,000 shares on each of the first three anniversary dates of the date of grant. We amended this employment agreement on February 7, 2007 to provide that if, in connection with a "change in control," Mr. Rice's employment is terminated without "Cause" or he resigns for "Good Reason," he will be entitled to the continued payment of salary and bonuses and the reimbursement of medical insurance premiums for 24 months following the change in control event. On February 11, 2008, Mr. Rice's salary was increased to $300,000 per annum, retroactive to January 1, 2008 and his quarterly bonus plan was supplanted by annual reviews of the Compensation Committee in 2008, 2009, and 2010. Beginning on August 1, 2009, Mr. Rice's salary was decreased 10% in conjunction with the Company's 10% across the board pay cuts.

We have an employment agreement with Daphne Taylor, our Chief Financial Officer, which automatically renews for successive one year periods in the event either party does not send the other a "termination notice" not less than 90 days prior to the expiration of the initial term or any subsequent term. The agreement provides for a salary of $150,000 per year and an incentive bonus based on certain quarterly milestones of up to 10% of Ms. Taylor's base salary. If, in connection with a "change in control," Ms. Taylor's employment is terminated without "Cause" or she resigns for "Good Reason," she will be entitled to the continued payment of salary and bonuses and the reimbursement of medical insurance premiums for 6 months following the change in control event.

The following table provides information related to outstanding equity awards for each of the Named Executive Officers as of December 31, 2011:

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END

	OPTION AWARDS					STOCK AWARDS			
Name (a)	Number of Securities Underlying Unexercised Options (#) Exercisable (b)	Number of Securities Underlying Unexercised Options (#) Unexercisable (c)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#) (d)	Option Exercise Price ($) (e)	Option Expiration Date (f)	Number of Shares or Units of Stock That Have Not Vested (#) (g)	Market Value of Shares or Units of Stock That Have Not Vested ($) (h)	Equity Incentive Plan Awards: Number of Unearned Shares, units or Other Rights That Have Not Vested (#) (i)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not

									Vested ($) (j)
Michael Rice	1,500,000	—	—	0.07	8/7/2016 (1)	—	—	—	—
Michael Rice	1,000,000	—	—	0.08	2/7/2017 (2)	—	—	—	—
Michael Rice	541,875	223,125	—	0.09	2/2/2019 (3)	—	—	—	—
Michael Rice	297,719	893,159	—	0.10	2/5/2020 (4)	—	—	—	—
Michael Rice	400,000	—	—	0.08	2/25/2021 (5)	—	—	—	—
Michael Rice	—	2,247,939	—	0.08	2/25/2021 (6)	—	—	—	—
Daphne Taylor	—	250,000	—	0.10	3/1/2021 (7)	—	—	—	—
Daphne Taylor	—	500,000	—	0.063	8/17/2021 (8)	—	—	—	—

(1) This award vested 500,000 shares on each of 8/7/2007, 8/7/2008, and 8/7/2009.

(2) This award vested 333,333 shares on each of 2/7/2008, 2/7/2009, and 333,334 shares on 2/7/2010.

(3) This award vests 191,250 shares on 2/2/2010 and, thereafter, in monthly increments of 15,938 shares.

(4) This award vests 297,719 shares on each of 2/5/2012, 2/5/2013, and 297,721 shares on 2/5/2014.

(5) This award vested on the date of grant.

(6) This award vests at the end of the quarter the Company achieves cash flow break even.

(7) This award vests 62,500 shares on each of 3/1/2012, 3/1/2013, 3/1/2014, and 3/1/2015.

(8) This award vests 125,000 shares on 8/17/12 and, thereafter, in monthly increments of 10,417 shares.

Compensation of Directors

Outside directors were compensated with a quarterly retainer fee of $1,500. The Audit Committee Chairman was compensated an additional quarterly retainer fee of $2,000. All directors receive $1,000 for attending board meetings and $500 per meeting for telephonic board meetings. Directors who attend audit committee and the compensation committee meetings receive $500. A total of $61,000 in director compensation was recorded during the year ended December 31, 2011.

The following table sets forth compensation paid to outside directors during the fiscal year ended December 31, 2011:

DIRECTOR COMPENSATION

Name (a)	Fees Earned or Paid in Cash ($) (b)	Stock Awards ($) (c)	Option Awards ($) (d)(1)	Non-Equity Incentive Plan Compensation ($) (e)	Non-Qualified Deferred Compensation Earnings ($) (f)	All Other Compensation ($) (g)	Total ($) (j)
Howard Breslow (2)	8,500	—	9,133	—	—	—	17,633
Thomas Girschweiler (3)	12,000	—	9,133	—	—	—	21,133
Roderick de Greef (4)	11,000	—	9,133	—	—	56,000	76,133
Raymond Cohen (5)	20,000	—	9,133	—	—	—	29,133
Andrew Hinson (6)	9,500	—	9,133	—	—	—	18,633

(1) See Note 1 to Notes to Financial Statements for a description on the valuation methodology of stock option awards.

(2) During the year ended December 31, 2011, Mr. Breslow had received a grant of 150,000 options which vested 100% on 3/11/2012. He owned the following additional options and warrants, all of which were exercisable:

options to purchase 800,000 shares of Common Stock and warrants to purchase 500,000 shares of Common Stock.

(3) During the year ended December 31, 2011, Mr. Girschweiler had received a grant of 150,000 options which vested 100% on 3/11/2012. He owned the following additional options, all of which were exercisable: options to purchase 550,000 shares of Common Stock and warrants to purchase 2,000,000 shares of Common Stock.

(4) During the year ended December 31, 2011, Mr. de Greef had received a grant of 150,000 options which vested 100% on 3/11/2012. He owned the following additional options and warrants, all of which were exercisable: options to purchase 914,864,000 shares of Common Stock and warrants to purchase 1,250,000 shares of Common Stock.

(5) During the year ended December 31, 2011, Mr. Cohen had received a grant of 150,000 options which vested on 3/11/2012. He owned the following additional options, all of which were exercisable: options to purchase 1,050,000 shares of Common Stock.

(6) During the year ended December 31, 2011, Mr. Hinson had received a grant of 150,000 options which vested on 3/11/2012. He owned the following additional options, all of which were exercisable: options to purchase 550,000 shares of Common Stock.

ITEMSECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED 12. STOCKHOLDER MATTERS

The following table sets forth, as of March 29, 2012, certain information regarding the beneficial ownership of Common Stock by (i) each stockholder known by the Company to be the beneficial owner of more than 5% of the outstanding shares thereof; (ii) each director of the Company; (iii) each Named Executive Officer of the Company; and (iv) all of the Company's current directors and executive officers as a group.

Name and Address of Beneficial Owner	Common Stock (1)		Percentage of Class (1)	
Michael Rice (Officer and Director) c/o BioLife Solutions, Inc. 3303 Monte Villa Pkwy, Suite 310 Bothell, WA 98021	4,117,003	(2)	5.6	%
Daphne Taylor (Officer) c/o BioLife Solutions, Inc. 3303 Monte Villa Pkwy, Suite 310 Bothell, WA 98021	72,917	(3)	0.1	%
Howard S. Breslow, Esq. (Director) c/o Breslow & Walker, LLP 767 Third Avenue New York, NY 10017	1,503,600	(4)	2.1	%
Raymond Cohen (Director) c/o BioLife Solutions, Inc. 3303 Monte Villa Pkwy, Suite 310 Bothell, WA 98021	1,245,000	(5)	1.8	%
Roderick de Greef (Director) c/o BioLife Solutions, Inc. 3303 Monte Villa Pkwy, Suite 310 Bothell, WA 98021	5,978,891	(6)	8.3	%
Thomas Girschweiler (Director) c/o BioLife Solutions, Inc. 3303 Monte Villa Pkwy, Suite 310 Bothell, WA 98021	17,106,552	(7)	23.6	%
Andrew Hinson (Director) c/o BioLife Solutions, Inc. 3303 Monte Villa Pkwy, Suite 310 Bothell, WA 98021	700,000	(8)	1.0	%
Walter Villiger c/o BioLife Solutions, Inc. 3303 Monte Villa Pkwy, Suite 310 Bothell, WA 98021	21,240,081		29.6	%
John G. Baust 175 Raish Hill Road Candor, NY 13743	3,694,722		5.3	%
Beskivest Chart LTD Goodmans Bay Center West Bay Street & Sea View Drive Nassau, Bahamas	7,255,026		10.4	%

All officers and directors as a group (six persons)	30,723,962	37.3	%

(1) Shares of Common Stock subject to options and warrants that are exercisable or will be exercisable within 60 days are deemed outstanding for computing the number of shares beneficially owned. The percentage of the outstanding shares held by a person holding such options or warrants includes those currently exercisable or exercisable within 60 days, but such options and warrants are not deemed outstanding for computing the percentage of any other person. Except as indicated by footnote, and subject to community property laws where applicable, the Company believes that the persons named in the table have sole voting and investment power with respect to all shares shown as beneficially owned by them.

(2) Includes 2,500,000 shares of Common Stock issuable upon the exercise of outstanding stock options under the Company's 1998 Stock Option Plan, 1,617,003 shares of Common Stock issuable upon the exercise of outstanding stock options granted subsequent to the expiration of its plan. This does not include 143,438, 595,438, and 2,247,939 shares of Common Stock issuable upon the exercise of non-vested stock options granted on February 2, 2009, February 5, 2010, and February 25, 2011, respectively.

(3) Includes 72,917 shares of Common Stock issuable upon the exercise of outstanding stock options granted subsequent to the expiration of the Company's 1998 plan. This does not include 177,083, 500,000, and 250,000 shares of Common Stock issuable upon the exercise of non-vested stock options granted on March 1, 2011, August 17, 2011, and February 10, 2012, respectively.

(4) Includes 500,000 shares of Common Stock issuable upon the exercise of outstanding stock options under the Company's 1998 Stock Option Plan, 450,000 shares of Common Stock issuable upon the exercise of outstanding stock options granted subsequent to the expiration of its plan, and 500,000 shares of Common Stock issuable upon the exercise of outstanding warrants, all of which options and warrants are currently exercisable, and 53,600 common shares.

(5) Includes 750,000 shares of Common Stock issuable upon the exercise of outstanding stock options under the Company's 1998 Stock Option Plan, 450,000 shares of Common Stock issuable upon the exercise of outstanding stock options granted subsequent to the expiration of its plan, all of which options are currently exercisable, and 45,000 common shares.

(6) Includes 500,000 shares of Common Stock issuable upon the exercise of outstanding stock options under the Company's 1998 Stock Option Plan, 679,728 shares of Common Stock issuable upon the exercise of outstanding stock options granted subsequent to the expiration of its plan, and 1,250,000 shares of Common Stock issuable upon the exercise of outstanding warrants, all of which options and warrants are currently exercisable, and 3,549,163 common shares.

(7) Includes 250,000 shares of Common Stock issuable upon the exercise of outstanding stock options under the Company's 1998 Stock Option Plan, 450,000 shares of Common Stock issuable upon the exercise of outstanding stock options granted subsequent to the expiration of its plan and 2,000,000 shares of Common Stock issuable upon the exercise of outstanding warrants, all of which options are currently exercisable, and 14,406,552 common shares.

(8) Includes 250,000 shares of Common Stock issuable upon the exercise of outstanding stock options under the Company's 1998 Stock Option Plan, 450,000 shares of Common Stock issuable upon the exercise of outstanding stock options granted subsequent to the expiration of its plan, all of which options are currently exercisable.

Securities Authorized for Issuance under Equity Compensation Plan at December 31, 2011

Plan category	Number of	Weighted	Number of

	securities to be issued upon exercise of outstanding options and warrants (in thousands)	Average exercise price of outstanding options and warrants	securities remaining available for future issuance (in thousands)
Equity compensation plans approved by security holders	6,300	$ .08	—
Equity compensation plans not approved by security holders*	11,253	$ .09	—
Total	17,873	$ .08	—

*See note 6 of Notes to Financial Statements

ITEMCERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE
13.

Howard S. Breslow, a director of the Company, is a member of Breslow & Walker, LLP, and general counsel to the Company. Mr. Breslow currently owns 53,600 shares of Common Stock of the Company and holds rights to purchase an aggregate of 1,450,000 additional shares pursuant to stock options and warrants issued to him and/or affiliates. The Company incurred approximately $52,132 in legal fees during the year ended December 31, 2011 for services provided by Breslow & Walker, LLP. At December 31, 2011, accounts payable includes $22,631 due to Breslow & Walker, LLP.
On January 11, 2008, we entered into a Secured Convertible Multi-Draw Term Loan Facility Agreement (the “Facility Agreement”) with each of Thomas Girschweiler, a director and stockholder of the Company, and Walter Villiger, an affiliate of the Company (the “Investors”), pursuant to which each Investor extended to the Company a secured convertible multi-draw term loan facility of $2,500,000, which Facility (a) incorporated (i) a refinancing of then existing indebtedness of the Company to the Investor, and accrued interest thereon, in the aggregate amount of $1,431,563.30, (ii) a then current advance of $300,000, and (iii) a commitment to advance to the Company, from time to time, additional amounts up to a maximum of $768,436.70, (b) bears interest at the rate of 7% per annum on the principal balance outstanding from time to time, (c) is evidenced by a secured convertible multi-draw term loan note (the “Multi-Draw Term Loan Note”), which was due and payable, together with accrued interest thereon, the earlier of (i) January 11, 2010, or (ii) an Event of Default (as defined in the Multi-Draw Term Loan Note), (d) if outstanding at the time of any bona fide equity financing of the Company of at least Two Million Dollars ($2,000,000) (a “Financing”), at the option of the Investor, could be converted into that number of fully paid and non-assessable shares or units of the equity security(ies) of the Company sold in the Financing (“New Equity Securities”) as is equal to the quotient obtained by dividing the principal amount of the Facility outstanding at the time of the conversion plus accrued interest thereon by 85% of the per share or per unit purchase price of the New Equity Securities, and (e) is secured by all of the Company’s assets. In 2009, the conversion feature was eliminated from the Facility.

In May and July 2008, we received $1,000,000 in total from the Investors pursuant to the Multi-Draw Term Loan Facility. On October 20, 2008, each Facility was increased by $2,000,000 to $4,500,000 (an aggregate of $9,000,000), and, on October 24, 2008, we received $600,000 in total from the Investors pursuant to the amended Multi-Draw Loan Facilities. In 2009, we received an additional $2,825,000 in total from the Investors pursuant to the amended Facilities. In December 2009, the Investors extended the repayment date to January 11, 2011. On November 16, 2010, each Facility was increased by $250,000 to $4,750,000 (an aggregate of $9,500,000) and the Investors granted an extension of the repayment date to January 11, 2013. In 2010, we received $1,145,000 in total from the Investors pursuant to the amended Facilities. In 2011, we received $1,095,000 in total from the Investors pursuant to the amended Facilities. In August 2011 the Company entered into an Amendment to its Facility Agreement with each of the Investors, pursuant to which the amount of each of the Investor’s Facility was increased to $5,250,000. The Note previously delivered to each of the Investors also was amended to reflect the changes to the Facility Agreement. In consideration of such amendments, the Company issued to each of the Investors a five-year warrant to purchase 1,000,000 shares of the Company’s Common Stock, par value $0.001 per share, at a price of $0.063 per share.

Roderick de Greef, a director of the Company, was engaged by the Board with the task of overseeing the Company’s financing activities, internal accounting functions and SEC reporting, and assisting in the search for, and reviewing, strategic alternatives, on a part-time basis (up to 80 hours per month on an as needed basis). The Company incurred $56,000 in consulting fees during the year ended December 31, 2011 for services provided by Mr. de Greef.

The agreement with Mr. de Greef was terminated in August of 2011.

ITEMPRINCIPAL ACCOUNTANT FEES AND SERVICES
14.

During 2011, Peterson Sullivan LLP acted as the independent auditors for the Company. The following table sets forth the aggregate fees billed and expected to be billed for audit and review services rendered in connection with the financial statements and reports for the years ending December 31, 2011 and December 31, 2010 and for other services rendered during the years ending December 31, 2011 and December 31, 2010 on behalf of the Company:

ACCOUNTANT FEES AND SERVICES

	Years Ended December 31,	
Description	2011	2010
Audit Fees	$ 67,500	$ 68,900
All Other Fees	—	—
Totals	$ 67,500	$ 68,900

The Board of Directors pre-approves all audit and non-audit services to be performed by the Company's independent auditors.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this annual report on Form 10-K:

(1) Financial Statements (Included Under Item 8): The Index to the Financial Statements is included on page 19 of this annual report on Form 10-K and is incorporated herein by reference.