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## **FORM 10-K**

**BIOLIFE SOLUTIONS INC - BLFS**

**Filed: March 28, 2011 (period: December 31, 2010)**

Annual report with a comprehensive overview of the company

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549

FORM 10-K

(Mark One)

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

For the year ended December 31, 2010

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**

(State or other jurisdiction of  
incorporation or organization)

**94-3076866**

(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

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

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  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  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.

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  Accelerated filer  Non-accelerated filer  Smaller reporting company

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

As of the registrant's most recently completed second fiscal quarter, the aggregate market value of common equity held by non-affiliates was \$3,191,442.

As of February 28, 2011, 69,679,854 shares of the registrant's common stock were outstanding.

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## PART I

### ITEM 1. BUSINESS

*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 and service 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
- Contracted research and development and consulting services related to optimization of biopreservation processes and protocols.
- Contract aseptic manufacturing fill and finish services

Our proprietary HypoThermoso1<sup>®</sup>, CryoStor<sup>®</sup>, and generic BloodStor<sup>®</sup> 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 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 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 normal 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.

## **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.

## **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 cell culture and tissue, if not maintained at body temperature (98.6°F/37°C), 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 a cold 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 cold 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, acid buffers, osmolytes 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 (hypothermia induced) destruction of cells through apoptosis and necrosis. This research led directly to the development of our specifically formulated and patented HypoThermosol technology. Working from the HypoThermosol technology base, we developed a family of proprietary cell, tissue and organ specific hypothermic storage and 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 products are serum-free, protein-free and packaged under aseptic processing using United States Pharmacopeia ("USP") 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 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 based formulas. 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 is a family of optimized hypothermic (2-8°C) temperature biopreservation media products that enable improved and extended preservation of biologic source material and manufactured cell and tissue based products. The HypoThermosol product line includes:

#### *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®

Based on our proprietary HypoThermosol technology, we developed the CryoStor family of optimized cryopreservation media products designed for frozen storage of cells and tissues. CryoStor is uniquely formulated to address the molecular-biological aspects of cellular stress as a response to the freezing and thawing processes, by directly reducing the level of preservation-induced, delayed-onset cell damage and death.

#### *CryoStor® CS2*

CryoStor CS2, a member of the CryoStor series of solutions, addresses the molecular-biological properties of systems undergoing preservation processes. CryoStor CS2 has been further formulated to provide reduced concentrations of cryoprotective agents (2% DMSO), for use in applications where a reduction in the level of DMSO is preferred.

### *CryoStor® CS5*

CryoStor CS5 is a base cryopreservation solution which is designed to incorporate the principles which led to the successful development of the HypoThermosol series with the incorporation of agents to modulate the physical damaging effects associated with ice formation and cellular freezing such as dimethyl sulfoxide (“DMSO”). The proprietary formula of the CryoStor platform facilitates substantially improved post-thaw cell survival and function and allows for the maintenance of this enhanced recovery with substantially reduced levels of cryoprotective agents such as DMSO.

### *CryoStor® CS10*

CryoStor CS10 contains 10% DMSO and has been adopted by numerous academic and clinical customers throughout the world.

### **BloodStor®**

BloodStor is a family of generic blood cell freezing media products. BloodStor 55-5 is our GMP grade version of the traditional 55% DMSO, 5% Dextran cord blood stem cell freezing media. This product is packaged in sterile, single-use vials and also custom bulk packaging.

### **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 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, cellular viability is of paramount importance.

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 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 200 regenerative medicine customers. We estimate that our products are now incorporated into 30 to 40 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.

#### *Drug Screening:*

- 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. We also adhere 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 for Clean Rooms and Associated Controlled Environments.

## Governmental Regulation

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").

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.

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

We currently 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, know-how 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 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

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

During 2010 and 2009, we spent approximately \$318,900 and \$414,500, respectively, on research and development activities.

In 2007, we established a Scientific Advisory Board (SAB) comprised of external members including 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 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.
- 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.

## 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 Life Technologies Corp. (formally Invitrogen), Lonza, 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, 2010, we had 11 employees, of whom three were engaged in manufacturing; two were engaged in quality assurance; one in research and development; two were engaged in sales and marketing; and three were engaged 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](http://www.sec.gov).

We also make our periodic and current reports available, free of charge, on our website, [www.BioLifeSolutions.com](http://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 similar 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.

## ITEM 1A. 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 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, 2010 and December 31, 2009, we had net losses of \$(1,983,630) and \$(2,768,352), respectively. As of December 31, 2010, our accumulated deficit was \$(52,194,852). 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 attaining 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 if 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. Although we, as a component supplier, may not be subject to the same formal prospective, controlled clinical-trials to establish safety and efficacy, and to substantial regulatory oversight by the FDA and other regulatory bodies, with respect to the commercialized end-products or therapies developed by these biotechnology companies and research institutions, the development of many of these therapies are years away from commercialization, and 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 we are and have greater financial, technical, research, marketing, sales, distribution and other resources than we do. 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. Further, 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.

## ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

## ITEM 2. PROPERTIES

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.

## ITEM 3. LEGAL PROCEEDINGS

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 defending 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.

On December 27, 2007, John G. Baust and John M. Baust, each separately, filed complaints with the State of New York, Division of Human Rights ("the Division") alleging unlawful discrimination practices against the Company based on wrongful termination due to retaliation for bringing complaints of sexual harassment on the part of Michael Rice, the Company's Chairman and Chief Executive Officer. The Company responded to the complaints, filed by John G. Baust on January 22, 2008, and by John M. Baust on January 14, 2008. On March 5, 2008, the Company was notified by the Division that these complaints were ordered dismissed and the files were closed due to the Division's lack of jurisdiction in the matter, the Division having determined that the civil suits filed by John G. Baust and John M. Baust had precedence and precluded the Division from asserting jurisdiction. The determination was successfully appealed and overturned by Justice Tait on October 23, 2008. On February 4, 2010, the Appellate Division of the Supreme Court of New York, Third Department affirmed Justice Tait's opinion that John G. Baust and John M. Baust could pursue a complaint in the Division. On March 15, 2010, the Division delivered to the Supreme Court, Appellate Division, a Notice of Motion and Motion for Reargument or Leave to Appeal. The motion was returnable April 5, 2010. On May 17, 2010, the Appellate Division denied the Division's motion for reargument or, in the alternative, for permission to appeal to the Court of Appeals. Thereafter, on June 23, 2010 the Division served a Motion for Leave to Appeal to the Court of Appeals. On October 14, 2010 the New York State Court of Appeals denied the Division's Motion for Leave to Appeal. Thus, the Complaints of John G. Baust and John M. Baust have been reinstated to the New York State Division of Human Rights. The Company retains all of its rights to oppose the complaints of Messrs. Baust before the Division and the Company will vigorously oppose any attempt at a recovery.

## 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, 2010, 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:

	<u>High</u>	<u>Low</u>
<b>Year ended December 31, 2009</b>		
4 <sup>th</sup> Quarter	\$ 0.11	\$ 0.10
3 <sup>rd</sup> Quarter	0.13	0.13
2 <sup>nd</sup> Quarter	0.22	0.17
1 <sup>st</sup> Quarter	0.07	0.05
<b>Year ended December 31, 2010</b>		
4 <sup>th</sup> Quarter	\$ 0.09	\$ 0.05
3 <sup>rd</sup> Quarter	0.09	0.04
2 <sup>nd</sup> Quarter	0.11	0.06
1 <sup>st</sup> Quarter	0.13	0.08

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF 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 the 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<sup>®</sup>, CryoStor<sup>®</sup>, and generic BloodStor<sup>®</sup> 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 product line of serum-free and protein-free biopreservation media products are fully defined and 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-thaw 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 enables 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, 2007 to 2010.

### Comparison of Annual Results of Operations

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

	<u>Years Ended December 31,</u>		<u>\$ Change</u>	<u>% Change</u>
	<u>2010</u>	<u>2009</u>		
Revenue				
Product sales	\$ 2,061,565	\$ 1,556,600	\$ 504,965	33%
Licensing revenue	20,000	25,000	(5,000)	-20%
Total revenue	<u>2,081,565</u>	<u>1,581,600</u>	499,965	32%
Cost of product sales	<u>1,225,177</u>	<u>1,007,022</u>	218,155	22%
Gross profit	856,388	574,578	281,810	49%
Operating expenses				
Research and development	318,897	414,465	(95,568)	-23%
Sales and marketing	431,007	558,721	(127,714)	-23%
General and administrative	1,500,680	1,503,552	(2,872)	-0%
Manufacturing start-up costs	-	385,205	(385,205)	-100%
Total operating expenses	<u>2,250,584</u>	<u>2,861,943</u>	(611,359)	-21%
Operating loss	(1,394,196)	(2,287,365)	893,169	39%
Other income (expenses)				
Interest income	193	1,069	(876)	-82%
Other income	-	9,692	(9,692)	-100%
Interest expense	(588,001)	(488,013)	(99,988)	-21%
Loss on disposal of assets	<u>(1,626)</u>	<u>(3,735)</u>	2,109	57%
Total other income (expenses)	<u>(589,434)</u>	<u>(480,987)</u>	(108,447)	-23%
Net Loss	<u>\$ (1,983,630)</u>	<u>\$ (2,768,352)</u>	\$ 784,722	28%

## Comparison of Results of Operations for the Years Ended December 31, 2010 and 2009

**Revenue.** Sales to individual customers representing more than 10% of total revenue totaled approximately \$535,000 and \$494,000 in 2010 and 2009, respectively. In 2010 the amount in product sales revenue was from two customers, one which totaled \$321,000 representing 16% of total product sales, and the other which totaled \$213,000 representing 10% of total product sales. In 2009 the amount in product sales revenue was from two customers, one which totaled \$334,000 representing 21% of total product sales, and the other which totaled \$160,000 representing 10% of total product sales. Increase in revenue is primarily due to increased product sales to existing customers, the acquisition of new customers, and sales of our new product BloodStor®.

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

**Product sales and cost of product sales.** In 2010, product sales increased 33% compared to 2009 due to increased product sales to existing customers, the acquisition of new customers in the cell therapy, drug discovery, and cell supplier markets, and continued sales of the new product family BloodStor®.

Cost of product sales consists of raw materials, labor and overhead expenses. In May 2009, we transitioned from a contract manufacturer to internal manufacturing. The initial period of in-house production included lower factory utilization during the start-up phase, which resulted in increased gross margins in 2010 compared to 2009.

**Research and Development.** R&D expense 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, 2010 decreased 23% compared to the 2009 period due to lower personnel related cost due to the reduction in workforce at the end of July 2009, offset by an increase in consulting fees related to outside services used in product development.

**Sales and Marketing.** Sales and marketing expenses consist primarily of salaries and other personnel-related expenses, consulting, trade shows and advertising. The 23% decrease in 2010 sales and marketing expenses compared to 2009 primarily was due to lower personnel related costs due to the reduction in workforce at the end of July 2009, offset by an increase in association dues as the company continues to place itself in key markets for increased product sales.

**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 0.2% decrease in general and administrative expenses in 2010 compared to 2009 resulted primarily in lower professional accounting fees offset by an increase in stock-based compensation.

**Manufacturing Start-up Costs.** Manufacturing start-up costs decreased 100% in the current year compared to 2009. In the third quarter of 2008, to reduce cost of product sales and enhance production flexibility, we decided to transition our manufacturing process in-house, which became operational in May 2009.

**Interest Expense.** The increase in interest expense in 2010 compared to 2009 was due to a higher average debt balance.

## **Liquidity, Going Concern and Capital Resources**

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, or, to amounts and classification of liabilities that may be necessary should we be unable to continue as a going concern.

### ***Liquidity***

At December 31, 2010, we had cash and cash equivalents of \$3,211 compared to cash and cash equivalents of \$139,151 at December 31, 2009. At December 31, 2010, we had working capital of \$474,271, compared to working capital of \$535,697 at December 31, 2009. We have been unable to generate sufficient income from operations in order to meet our operating needs and have an accumulated deficit of approximately \$52 million at December 31, 2010. 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, 2010, net cash used in operating activities was \$1,252,525 as compared to net cash used by operating activities of \$2,413,642 for the year ended December 31, 2009. 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 Provided by and Used in Investing Activities***

Net cash used in investing activities totaled \$28,414 during the year ended December 31, 2010, and \$373,531 during the year ended December 31, 2009. 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 \$1,145,000 for the year ended December 31, 2010 and \$2,827,600 for the year ended December 31, 2009 and resulted from the issuance of promissory notes to two shareholders.

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 May and July 2008, we received an additional \$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 an additional \$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 an additional \$1,145,000 in total from the Investors pursuant to the amended Facilities, which brought our total principal balance owed under the Multi-Draw Term Loan Notes to \$9,033,127, and left \$466,873 to draw from the Facilities at December 31, 2010.

#### ***Operating Capital and Capital Expenditure Requirements***

We believe that continued access to the amended Facilities, in combination with cash generated from customer collections, will provide sufficient funds through June 30, 2011. However, we would require additional capital in the immediate short term if our ability to draw on the amended Facilities is restricted or terminated. Other 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. We expect that we may need additional capital to reach a sustainable level of positive cash flow. Although the Investors who have provided the amended Facilities historically have demonstrated a willingness to grant access to the Facilities and renegotiate terms of previous credit arrangements there is no assurance they will continue to do so in the future. If 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 at all, 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.

#### ***Off-Balance Sheet Arrangements***

As of December 31, 2010, 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.

## ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by this item is incorporated herein by reference to the financial statements included in Item 15 (a)1 of this Form 10-K Annual Report.

## 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, 2010 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, 2010, 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, 2010. Based on our assessment, we conclude that as of December 31, 2010 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 quarter ended December 31, 2010.

#### ***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.

#### **ITEM 9B. OTHER INFORMATION**

None.

### PART III

#### ITEM 10. DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE

The following table and text set forth the names and ages of all directors and executive officers of the Company as of March 28, 2011. 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	48	Chief Executive Officer, President, and Director
Howard S. Breslow	71	Director, Secretary
Roderick de Greef	50	Director
Thomas Girschweiler	53	Director
Raymond Cohen	51	Director
Andrew Hinson	45	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.

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 since July 2007, has been 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. He currently serves as the CEO and member of the Board of Directors of Minnow Medical, Inc., a venture backed developer of a novel RF Thermoplasty therapy for treatment of vascular disease and as an advisor to Fjord Ventures, LLC., a life science incubator. Cohen also serves on the Board of publicly traded Cardiogenesis, Inc., (CPCG) a manufacturer of transmyocardial revascularization lasers, Syncroness, Inc., a privately-held engineering and product development firm and CardioPolymers, Inc., a privately-held developer of novel biotherapeutics for the treatment of congestive heart failure. In 2008, Mr. Cohen was named by AeA as the Private Company Life Science CEO of the Year. Previously, Cohen served as Chairman and Chief Executive Officer of Cardiac Science (CSCX). In 2004, Cardiac Science was ranked as the 4th fastest growing technology company in North America on Deloitte & Touche's Fast 500 listing. 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, OCTANe where he is a member of the Biomedical Leadership Council and as a Advisory Council member to the Keck Graduate Institute, BioScience MBA program. Mr. Cohen holds a B.S. in Business Management from the State University of New York at Binghamton.

Andrew Hinson joined the Board in February 2007. He currently 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

### **Committee Membership, Meetings and Attendance**

During the fiscal year ended December 31, 2010, there were:

- Four meetings of the Board of Directors
- Four meetings of the Audit Committee
- One meeting of the Compensation Committee
- No meetings of the Nominating and Corporate Governance Committee

Each Director attended or participated in at least 100% of the meetings of the Board of Directors held during the fiscal year ended December 31, 2010.

### **Board Committees**

#### ***Audit Committee and Audit Committee Financial Expert***

The Audit Committee is currently composed of Messrs. Girschweiler, Cohen and de Greef. 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 has the sole authority and responsibility to select, evaluate and replace our independent registered public accounting firm or nominate the independent auditors for stockholder approval. The Audit Committee must pre-approve all audit engagement fees and terms and all non-audit engagements with the independent auditors. The Audit Committee consults with management but does not delegate these responsibilities. The Audit Committee met four times in fiscal 2010 in which they reviewed and discussed the financial statements as presented in form 10-K for period ended December 31, 2009, and in form 10-Q for periods ended March 31, June 30, and September 30, 2010.

### ***Compensation Committee***

The Compensation Committee consists of Messrs., Hinson, Cohen and Girschweiler. The Compensation Committee awards stock options to officers and employees, and has overall responsibility for approving and evaluating the executive officer compensation plans, policies and programs of the Company. The Compensation Committee met one time in fiscal 2010.

### ***Nominating and Corporate Governance Committee***

Our Nominating and Corporate Governance Committee consists of Messrs. Hinson, de Greef and Breslow. The Nominating and Corporate Governance Committee did not meet in fiscal 2010. The Nominating and Corporate Governance Committee is responsible for (1) reviewing suggestions of candidates for director made by directors and others; (2) identifying individuals qualified to become Board members, and recommending to the Board the director nominees for the next annual meeting of shareholders; (3) recommending to the Board director nominees for each committee of the Board; (4) recommending to the Board the corporate governance principles applicable to the Company; and (5) 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 is evaluated based on whether the nominee is recommended by a stockholder or otherwise.

### **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, 2010, the Reporting Persons complied with all applicable Section 16(a) filing requirements.

### **Code of Ethics**

We 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. Accordingly, the Board has adopted a formal written code of ethics for all employees, and an additional corporate code of ethics for its Chief Executive Officer and Senior Financial Officers. 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 our expectations of our executives which enable us to provide accurate and timely disclosure of our filings with the Securities and Exchange Commission and other public communication. The code of ethics is posted on our website, [www.biolifesolutions.com](http://www.biolifesolutions.com). Any future changes or amendments to our code of ethics, and any waiver of our codes of ethics, will be posted on the website when applicable.

## ITEM 11. EXECUTIVE COMPENSATION

The following table sets forth certain information concerning the compensation paid by the Company to its Chief Executive Officer, and any additional executive officers that received salary and bonus payments in excess of \$100,000 during the fiscal year ended December 31, 2010 (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	2010	270,000	—	—	92,305(2)	—	—	—	362,305
President, Chief Executive Officer and Director (8/06 –present)	2009	287,500	—	—	50,963(3)	—	—	—	338,463

(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 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.

(3) Amount is a result of options to purchase 765,000 shares at \$0.09 per share granted to officer on 2/2/2009, which options vest to the extent of 191,250 shares on each of 2/2/2010, 2/2/2011, 2/2/2012 and 2/2/2013.

### 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" no 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.

The following table provides information related to outstanding equity awards for each of the Named Executive Officers as of December 31, 2010:

**OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END**

Name (a)	OPTION AWARDS				STOCK AWARDS				
	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 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	350,625	414,375-	—	0.09	2/2/2019 (3)	—	—	—	—
Michael Rice	—	1,190,878	—	0.10	2/5/2020 (4)	—	—	—	—

(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 2/5/2011, 2/5/2012, 2/5/2013, and 297,721 shares on 2/5/2014.

### 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 \$65,500 in director compensation was recorded during the year ended December 31, 2010.

The following table sets forth compensation paid to outside directors during the fiscal year ended December 31, 2010:

#### 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)	10,000	—	10,755	—	—	—	20,755
Thomas Girschweiler (3)	12,500	—	10,755	—	—	—	23,255
Roderick de Greef (4)	12,000	—	10,755	—	—	96,000	118,755
Raymond Cohen (5)	20,500	—	10,755	—	—	—	31,255
Andrew Hinson (6)	10,500	—	10,755	—	—	—	21,255

- (1) See Note 1 to Notes to Financial Statements for a description on the valuation methodology of stock option awards.
- (2) As of December 31, 2010, Mr. Breslow had received a grant of 150,000 options which vested 100% on 2/5/2011. He owned the following options and warrants, all of which were exercisable: options to purchase 650,000 shares of Common Stock and warrants to purchase 500,000 shares of Common Stock.
- (3) As of December 31, 2010, Mr. Girschweiler had received a grant of 150,000 options which vested 100% on 2/5/2011. He owned the following options, all of which were exercisable: options to purchase 400,000 shares of Common Stock and warrants to purchase 1,000,000 shares of Common Stock.
- (4) As of December 31, 2010, Mr. de Greef had received a grant of 150,000 options which vested 100% on 2/5/2011. He owned the following options and warrants, all of which were exercisable: options to purchase 650,000 shares of Common Stock and warrants to purchase 1,250,000 shares of Common Stock.
- (5) As of December 31, 2010, Mr. Cohen had received a grant of 150,000 options which vested on 2/5/2011. He owned the following options, all of which were exercisable: options to purchase 900,000 shares of Common Stock.
- (6) As of December 31, 2010, Mr. Hinson had received a grant of 150,000 options which vested on 2/5/2011. He owned the following options, all of which were exercisable: options to purchase 400,000 shares of Common Stock.

**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

The following table sets forth, as of March 28, 2011, 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.

<u>Name and Address of Beneficial Owner</u>	<u>Common Stock (1)</u>	<u>Percentage of Class (1)</u>
Michael Rice (Officer and Director) c/o BioLife Solutions, Inc. 3303 Monte Villa Pkwy, Suite 310 Bothell, WA 98021	3,628,032 (2)	4.9%
John G. Baust 175 Raish Hill Road Candor, NY 13743	3,694,722	5.3%
Howard S. Breslow, Esq. (Director) c/o Breslow & Walker, LLP 767 Third Avenue New York, NY 10017	1,353,600 (3)	1.9%
Roderick de Greef (Director) c/o BioLife Solutions, Inc. 3303 Monte Villa Pkwy, Suite 310 Bothell, WA 98021	6,058,622 (4)	8.4%
Walter Villiger c/o BioLife Solutions, Inc. 3303 Monte Villa Pkwy, Suite 310 Bothell, WA 98021	20,240,081	28.6%
Thomas Girschweiler (Director) c/o BioLife Solutions, Inc. 3303 Monte Villa Pkwy, Suite 310 Bothell, WA 98021	15,956,552 (5)	22.4%
Beskivest Chart LTD Goodmans Bay Center West Bay Street & Sea View Drive Nassau, Bahamas	7,255,026	10.4%
Raymond Cohen (Director) c/o BioLife Solutions, Inc. 3303 Monte Villa Pkwy, Suite 310 Bothell, WA 98021	1,095,000 (6)	1.5%
Andrew Hinson (Director) c/o BioLife Solutions, Inc. 3303 Monte Villa Pkwy, Suite 310 Bothell, WA 98021	550,000 (7)	0.8%
All officers and directors as a group (six persons)	28,641,806	35.2%

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- (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, 1,128,032 shares of Common Stock issuable upon the exercise of outstanding stock options granted subsequent to the expiration of its plan. This does not include 334,688, 893,159, 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 500,000 shares of Common Stock issuable upon the exercise of outstanding stock options under the Company's 1998 Stock Option Plan, 300,000 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. This does not include 150,000 shares of Common Stock issuable upon the exercise of non-vested stock options granted on February 11, 2011.
  - (4) Includes 500,000 shares of Common Stock issuable upon the exercise of outstanding stock options under the Company's 1998 Stock Option Plan, 759,459 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. This does not include 150,000 shares of Common Stock issuable upon the exercise of non-vested stock options granted on February 11, 2011.
  - (5) Includes 250,000 shares of Common Stock issuable upon the exercise of outstanding stock options under the Company's 1998 Stock Option Plan, 300,000 shares of Common Stock issuable upon the exercise of outstanding stock options granted subsequent to the expiration of its plan and 1,000,000 shares of Common Stock issuable upon the exercise of outstanding warrants, all of which options are currently exercisable, and 14,406,552 common shares. This does not include 150,000 shares of Common Stock issuable upon the exercise of non-vested stock options granted on February 11, 2011.
  - (6) Includes 750,000 shares of Common Stock issuable upon the exercise of outstanding stock options under the Company's 1998 Stock Option Plan, 300,000 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. This does not include 150,000 shares of Common Stock issuable upon the exercise of non-vested stock options granted on February 11, 2011.
  - (7) Includes 250,000 shares of Common Stock issuable upon the exercise of outstanding stock options under the Company's 1998 Stock Option Plan, 300,000 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. This does not include 150,000 shares of Common Stock issuable upon the exercise of non-vested stock options granted on February 11, 2011.

## Securities Authorized for Issuance under Equity Compensation Plan

Plan category	Number of securities to be issued upon exercise of outstanding options and warrants (in thousands)	Weighted Average exercise price of outstanding options and warrants	Number of securities remaining available for future issuance (in thousands)
Equity compensation plans approved by security holders	6,825	\$ .08	—
Equity compensation plans not approved by security holders*	11,959	\$ .08	—
<b>Total</b>	<b>18,784</b>	<b>\$ .09</b>	<b>—</b>

\*See note 6 of Notes to Financial Statements

### ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

Howard S. Breslow, a director of the Company, is a member of Breslow & Walker, LLP, 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 1,300,000 additional shares pursuant to stock options and warrants issued to him and/or affiliates. The Company incurred approximately \$21,902 in legal fees during the year ended December 31, 2010 for services provided by Breslow & Walker, LLP. At December 31, 2010, accounts payable includes \$149 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 May and July 2008, we received an additional \$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 an additional \$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 an additional \$1,145,000 in total from the Investors pursuant to the amended Facilities, which brought our total principal balance owed under the Multi-Draw Term Loan Notes to \$9,033,127, and left \$466,873 to draw from the Facilities at December 31, 2010.

On August 7, 2007, the Board of Directors of the Company agreed to outsource to Roderick de Greef, a director of the Company, 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), effective as of July 1, 2007 (since he was effectively serving the Company in such capacity since such date), on terms to be agreed upon by Mike Rice, the President of the Company, and Mr. de Greef, and approved by the Board. Subsequent to August 7, 2007, Mr. Rice and Mr. de Greef agreed to the following terms: (1) a fee of \$10,000 per month, (2) reimbursement of business expenses, (3) 90 day advance notice of termination by the Company, and (4) the payment of one (1) year's fees (\$120,000) if terminated in connection with a Change of Control transaction. As used herein the term Change of Control means (A) there shall be consummated (1) any consolidation or merger of the Company in which the Company is not the continuing or surviving corporation or pursuant to which shares of the Company's Common Stock would be converted into cash, securities or other property, other than a merger of the Company in which the holders of the Company's Common Stock immediately prior to the merger have the same proportionate ownership of at least 50% of common stock of the surviving corporation immediately after the merger, or (2) any sale, lease, exchange or other transfer (in one transaction or a series of related transactions) of all, or substantially all, of the assets of the Company; (B) the shareholders of the Company approve any plan or proposal for the liquidation or dissolution of the Company; or (C) any person (as such term is used in Sections 13(d) and 14(d) (2) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")), shall become the beneficial owner (within the meaning of Rule 13d-3 under the Exchange Act) of 50% or more of the Company's outstanding Common Stock. On November 14, 2007, the arrangement was approved by the Board of Directors of the Company. Beginning on August 1, 2009, Mr. de Greef's fees were decreased 20% in conjunction with the Company's 10% across the board pay cuts. The Company paid consulting fees of \$96,000 for year ended December 31, 2010.

#### ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

During 2010, 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, 2010 and December 31, 2009 and for other services rendered during the years ending December 31, 2010 and December 31, 2009 on behalf of the Company:

##### ACCOUNTANT FEES AND SERVICES

Description	Years Ended December 31,	
	2010	2009
Audit Fees	\$ 68,300	\$ 87,000
All Other Fees	—	—
Totals	\$ 68,300	\$ 87,000

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) 1. Financial Statements

The financial statements required by this item are included herein:

	<u>Page No.</u>
Index to Financial Statements	F-1
Report of Independent Registered Public Accounting Firm	F-2
Audited Financial Statements:	
Balance Sheets	F-3
Statements of Operations	F-4
Statements of Shareholders' Equity (Deficiency)	F-5
Statements of Cash Flows	F-6
Notes to Financial Statements	F-7

(a) 3. Exhibits

See Exhibit Index below for exhibits filed as part of this Annual Report on Form 10-K

<b>Exhibit Number</b>	<b>Document</b>
3.1	Certificate of Incorporation, as amended. (1)
3.2	By-Laws, and amendment, dated March 19, 1990, thereto. (1)
4.1	Specimen of Common Stock Certificate. (1)
10.1	Stock Option Plan, dated July 7, 1988, and amendment, dated July 19, 1989. (1)
10.2	1998 Stock Option Plan (2)
10.3	Employment Agreement dated July 26, 2006 between the Company and Michael Rice (3) ^
10.4	Amendment to Employment Agreement dated February 7, 2007 between the Company and Michael Rice (4) ^
10.5	Manufacturing Service Agreement dated October 26, 2007 between the Company and Bioserv, Inc., a division of NextPharma Technologies, Inc. (5)
10.6	Quality Agreement dated October 26, 2007 between the Company and Bioserv, Inc., a division of NextPharma Technologies, Inc. (5)
10.7	Storage Services Agreement dated October 26, 2007 between the Company and Bioserv, Inc., a division of NextPharma Technologies, Inc. (5)
10.8	Order Fulfillment Services Agreement dated October 26, 2007 between the Company and Bioserv, Inc., a division of NextPharma Technologies, Inc. (5)
10.9	Lease Agreement dated August 1, 2007 for facility space 3303 Monte Villa Parkway, Bothell, WA 98021 (6)
10.10	Consulting Agreement dated August 7, 2007 between the Company and Roderick de Greef (7)
10.11	Secured Convertible Multi-Draw Term Loan Facility Agreement dated January 11, 2008, between the Company and Thomas Girschweiler (8)
10.12	Secured Convertible Multi-Draw Term Loan Facility Agreement dated January 11, 2008, between the Company and Walter Villiger (8)
10.13	First Amendment to the Secured Convertible Multi-Draw Term Loan Facility Agreement dated October 20, 2008, between the Company, Thomas Girschweiler, and Walter Villiger (9)
10.14	Promissory Note dated October 20, 2008 issued by the Company to Thomas Girschweiler (9)
10.15	Promissory Note dated October 20, 2008 issued by the Company to Walter Villiger (9)
10.16	First Amendment to the Lease, dated the November 4, 2008, between the Company and Monte Villa Farms, LLC (9)

10.17	Second Amendment to the Secured Convertible Multi-Draw Term Loan Facility Agreement dated December 16, 2009, between the Company, Thomas Girschweiler and Walter Villiger (10)
10.18	Promissory Note dated December 16, 2009 issued by the Company to Thomas Girschweiler (10)
10.19	Promissory Note dated December 16, 2009 issued by the Company to Walter Villiger (10)
10.20	Third Amendment to the Secured Multi-Draw Term Loan Facility Agreement dated November 29, 2010, between the Company, Thomas Girschweiler and Walter Villiger *
10.21	Promissory Note dated November 29, 2010 issued by the Company to Thomas Girschweiler *
10.22	Promissory Note dated November 29, 2010 issued by the Company to Walter Villiger *
10.23	Warrant to purchase 1,000,000 shares of the Company's Common Stock, at \$0.07 per share, issued to Thomas Girschweiler*
10.24	Warrant to purchase 1,000,000 shares of the Company's Common Stock, at \$0.07 per share, issued to Walter Villiger*
31	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 *
32	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 *

- (1) Incorporated by reference to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 2000.
- (2) Incorporated by reference to the Company's Definitive Proxy Statement for the special meeting of shareholders held on December 16, 1998.
- (3) Incorporated by reference to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 2006.
- (4) Incorporated by reference to the Company's current report on Form 8-K filed February 12, 2007.
- (5) Incorporated by reference to the Company's current report on Form 8-K filed October 30, 2007.
- (6) Incorporated by reference to the Company's Annual Report on Form 10-KSB for the fiscal year ended December 31, 2007.
- (7) Incorporated by reference to the Company's current report on Form 8-K filed November 19, 2007.
- (8) Incorporated by reference to the Company's current report on Form 8-K filed January 14, 2008.
- (9) Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2008.
- (10) Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2009.

\* Filed herewith

^ Compensatory plan or arrangement

## SIGNATURES

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

Date: March 28, 2011

**BIOLIFE SOLUTIONS, INC.**

/s/Michael Rice  
Michael Rice  
Chief Executive Officer and Chief  
Financial Officer

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

Date: March 28, 2011

/s/Michael Rice  
Michael Rice  
Director

Date: March 28, 2011

/s/Roderick de Greef  
Roderick de Greef  
Director

Date: March 28, 2011

/s/Howard S. Breslow  
Howard S. Breslow  
Director

Date: March 28, 2011

/s/Thomas Girschweiler  
Thomas Girschweiler  
Director

Date: March 28, 2011

/s/Raymond Cohen  
Raymond Cohen  
Director

Date: March 28, 2011

/s/Andrew Hinson  
Andrew Hinson  
Director

## INDEX TO FINANCIAL STATEMENTS

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## 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, 2010 and 2009, 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, 2010 and 2009, 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 \$52 million at December 31, 2010. 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 28, 2011

**BioLife Solutions, Inc.**  
**Balance Sheets**

	<u>December 31,</u> <u>2010</u>	<u>December 31,</u> <u>2009</u>
<b><u>Assets</u></b>		
<b>Current assets</b>		
Cash and cash equivalents	\$ 3,211	\$ 139,151
Accounts receivable, trade, net of allowance for doubtful accounts of \$1,100 and \$550 at December 31, 2010 and 2009, respectively	338,899	315,365
Inventories	410,486	358,219
Prepaid expenses and other current assets	62,377	79,635
<b>Total current assets</b>	<b><u>814,973</u></b>	<b><u>892,370</u></b>
<b>Property and equipment</b>		
Furniture and computer equipment	170,256	164,964
Manufacturing and other equipment	542,775	521,494
Subtotal	713,031	686,458
Less: Accumulated depreciation	(352,331)	(281,036)
Net property and equipment	360,700	405,422
Long term deposits	36,166	36,166
Deferred financing costs	97,220	—
<b>Total assets</b>	<b><u>\$ 1,309,059</u></b>	<b><u>\$ 1,333,958</u></b>
<b><u>Liabilities and Shareholders' Equity (Deficiency)</u></b>		
<b>Current liabilities</b>		
Accounts payable	\$ 117,068	\$ 192,834
Accrued expenses and other current liabilities	108,015	51,251
Accrued compensation	95,619	92,588
Deferred revenue	20,000	20,000
<b>Total current liabilities</b>	<b><u>340,702</u></b>	<b><u>356,673</u></b>
<b>Long term liabilities</b>		
Promissory notes payable, related parties	9,033,127	7,888,127
Accrued interest, related parties	1,354,975	766,973
Deferred revenue, long term	129,167	149,167
<b>Total liabilities</b>	<b><u>10,857,971</u></b>	<b><u>9,160,940</u></b>
<b>Commitments and Contingencies (Note 8)</b>		
<b>Shareholders' equity (deficiency)</b>		
Common stock, \$0.001 par value; 100,000,000 shares authorized, 69,679,854 shares issued and outstanding at December 31, 2010 and 2009, respectively	69,680	69,680
Additional paid-in capital	42,576,260	42,314,560
Accumulated deficit	(52,194,852)	(50,211,222)
<b>Total shareholders' equity (deficiency)</b>	<b><u>(9,548,912)</u></b>	<b><u>(7,826,982)</u></b>
<b>Total liabilities and shareholders' equity (deficiency)</b>	<b><u>\$ 1,309,059</u></b>	<b><u>\$ 1,333,958</u></b>

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

**BioLife Solutions, Inc.**  
**Statements of Operations**

	<b>Years Ended December 31,</b>	
	<b>2010</b>	<b>2009</b>
Revenue		
Product sales	\$ 2,061,565	\$ 1,556,600
Licensing revenue	20,000	25,000
<b>Total revenue</b>	<b>2,081,565</b>	<b>1,581,600</b>
Cost of product sales	1,225,177	1,007,022
<b>Gross profit</b>	<b>856,388</b>	<b>574,578</b>
Operating expenses		
Research and development	318,897	414,465
Sales and marketing	431,007	558,721
General and administrative	1,500,680	1,503,552
Manufacturing start-up costs	—	385,205
<b>Total operating expenses</b>	<b>2,250,584</b>	<b>2,861,943</b>
<b>Operating loss</b>	<b>(1,394,196)</b>	<b>(2,287,365)</b>
Other income (expenses)		
Interest income	193	1,069
Other income	—	9,692
Interest expense	(588,001)	(488,013)
Loss on disposal of property and equipment	(1,626)	(3,735)
<b>Total other income (expenses)</b>	<b>(589,434)</b>	<b>(480,987)</b>
<b>Net Loss</b>	<b>\$ (1,983,630)</b>	<b>\$ (2,768,352)</b>
<b>Basic and diluted net loss per common share</b>	<b>\$ (0.03)</b>	<b>\$ (0.04)</b>
<b>Basic and diluted weighted average common shares used to calculate net loss per common share</b>	<b>69,679,854</b>	<b>69,647,635</b>

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

**BioLife Solutions, Inc.**  
**Statements of Shareholders' Equity (Deficiency)**

	<u>Common Stock</u>		<u>Additional Paid-in Capital</u>	<u>Accumulated Deficit</u>	<u>Total Shareholders' Equity (Deficiency)</u>
	<u>Shares</u>	<u>Amount</u>			
Balance, December 31, 2008	69,639,854	\$ 69,640	\$ 42,202,117	\$ (47,442,870)	\$ (5,171,113)
Exercise of options to purchase common stock	40,000	40	2,560	—	2,600
Stock-based compensation	—	—	109,883	—	109,883
Net loss	—	—	—	(2,768,352)	(2,768,352)
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)

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

**BioLife Solutions, Inc.**  
**Statements of Cash Flows**

	<b>Years Ended December 31,</b>	
	<b>2010</b>	<b>2009</b>
Cash flows from operating activities		
Net loss	\$ (1,983,630)	\$ (2,768,352)
Adjustments to reconcile net loss to net cash used in operating activities		
Depreciation	71,741	93,690
Loss on disposal of property and equipment	1,626	3,735
Stock-based compensation expense	164,480	109,883
Other	—	782
Change in operating assets and liabilities		
(Increase) Decrease in		
Accounts receivable, trade	(23,534)	(36,173)
Inventories	(52,267)	267,072
Prepaid expenses and other current assets and long-term deposits	17,258	(78,483)
Increase (Decrease) in		
Accounts payable	(75,766)	(466,301)
Accrued compensation and other expenses and other current liabilities	59,564	(98,342)
Accrued interest, related parties	588,002	488,012
Deferred revenue	(20,000)	70,835
Net cash used in operating activities	<u>(1,252,526)</u>	<u>(2,413,642)</u>
Cash flows from investing activity		
Purchase of property and equipment	<u>(28,414)</u>	<u>(373,531)</u>
Cash flows from financing activities		
Proceeds from notes payable	1,145,000	2,825,000
Proceeds from exercise of options	—	2,600
Net cash provided by financing activities	<u>1,145,000</u>	<u>2,827,600</u>
Net increase in cash and cash equivalents	(135,940)	40,427
Cash and cash equivalents - beginning of year	<u>139,151</u>	<u>98,724</u>
Cash and cash equivalents - end of year	<u>\$ 3,211</u>	<u>\$ 139,151</u>
Non-cash financing activities		
Deferred financing costs from issuance of warrants (see note 6)	\$ 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 and markets patented hypothermic storage and cryopreservation solutions for cells, tissues, and organs, and provides contracted research and development and consulting services related to optimization of biopreservation processes and protocols. Our proprietary HypoThermosol<sup>®</sup>, CryoStor<sup>®</sup>, and generic BloodStor<sup>®</sup> 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.

#### 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.

#### Reclassifications

Certain prior period amounts in the financial statements have been reclassified to conform to current period presentation. There has been no impact on previously reported net loss or shareholders' equity (deficiency).

#### 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, 2010 and 2009 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, 2010 and 2009:

	<u>2010</u>	<u>2009</u>
Basic and diluted weighted average common stock shares outstanding	69,679,854	69,647,635
Potentially dilutive securities excluded from loss per share computations:		
Common stock options	14,564,815	9,265,000
Common stock purchase warrants	4,218,750	2,218,750

**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 five 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, 2007 to 2010.

### **Advertising**

Advertising costs are expensed as incurred and totaled \$3,064 and \$16,018 for the years ended December 31, 2010 and 2009, respectively.

### **Manufacturing start-up costs**

During the third quarter of 2007, as a result of relocating the Company from Owego, New York to Bothell, Washington, we decided to outsource manufacturing and entered into a contract with a Contract Manufacturing Organization ("CMO"). In the third quarter of 2008, to reduce cost of product sales and enhance its production flexibility, we decided to transition our manufacturing from the CMO to process in-house. The first production run was completed half way through the second quarter in May 2009. One-time start-up costs related to the transition to internal manufacturing were expensed as incurred and amounted to \$385,205 for the year ended December 31, 2009.

### **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, 2010 and 2009 this is the Company's only operating segment.

## Research and Development

Research and development costs are expensed as incurred.

## 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, 2010 and 2009, the following weighted-average assumptions were used:

<b>Assumptions</b>	<b>2010</b>	<b>2009</b>
Risk-free rate	2.22%	1.78%
Annual rate of dividends	—	—
Historical volatility	87.76%	82.27%
Expected life	6.8 years	6.4 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, 2010 and 2009 was 7.48% and 4.7%, 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

In April 2010, the FASB issued guidance to address accounting for research or development arrangements in which a vendor satisfies its performance obligations over time, with all or a portion of the consideration contingent on future events, referred to as milestones. The new guidance allows a vendor to adopt an accounting policy to recognize all of the arrangement consideration that is contingent on the achievement of a milestone in the period the milestone is achieved, if the milestone meets the criteria to be considered a substantive milestone. The milestone method described in the new guidance is not the only acceptable revenue attribution model for milestone consideration. However, other methods that result in the recognition of all of the milestone consideration in the period the milestone is achieved are precluded. A vendor is not precluded from electing to apply a policy that results in the deferral of some portion of the milestone consideration.

The new guidance is effective on a prospective basis for milestones achieved in fiscal years, and interim periods within those fiscal years, beginning on or after June 15, 2010, with early adoption permitted. If an entity early adopts in a period that is not the beginning of its fiscal year, it must apply the guidance retrospectively from the beginning of the year of adoption. A vendor may elect to adopt the new guidance retrospectively for all prior periods, but is not required to do so. The Company expects to prospectively apply the amended guidance to milestones achieved on or after January 1, 2011. The Company is in the process of evaluating the impact the amended guidance will have on its financial statements.

In October 2009, the FASB issued ASU 2009-13, Multiple-Deliverable Revenue Arrangements a Consensus of the FASB Emerging Issues Task Force, updating ASC Topic 605, Revenue Recognition. ASU 2009-13 requires multiple-deliverable arrangements to be separated using a selling price hierarchy for determining the selling price of a deliverable and significantly expands disclosure requirements of such arrangements. The selling price for each deliverable will be based on vendor-specific objective evidence (VSOE) if available, the third-party evidence if VSOE is not available, or estimated selling price if VSOE and third-party evidence are not available. Arrangement consideration will be allocated at the inception of the arrangement to all deliverables using the relative selling price method. The relative selling price method allocates any discount in the arrangement proportionally to each deliverable on the basis of each deliverable's estimated selling price. This guidance is effective for revenue arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010. Early adoption is permitted; therefore, the Company has adopted this pronouncement in the fiscal year beginning January 1, 2010. Upon adoption, the pronouncement did not have a material impact on our financial statements and is not expected to have a material impact on our future operating results.

## 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 \$52 million at December 31, 2010. This raises substantial doubt about our ability to continue as a going concern.

At December 31, 2010, we had cash and cash equivalents of \$3,211, compared to cash and cash equivalents of \$139,151 at December 31, 2009. At December 31, 2010, we had working capital of \$474,271, compared to working capital of \$535,697 at December 31, 2009.

During the year ended December 31, 2010, net cash used in operating activities was \$1,252,526 as compared to net cash used by operating activities of \$2,413,642 for the year ended December 31, 2009. 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 totaled \$28,414 during the year ended December 31, 2010, and \$373,531 during the year ended December 31, 2009. Cash used in investing activities is due to purchase of property and equipment.

Net cash provided by financing activities totaled \$1,145,000 for the year ended December 31, 2010, which resulted primarily from the issuance of promissory notes to two shareholders. Net cash provided by financing activities totaled \$2,827,600 for the year ended December 31, 2009 resulting from the issuance of promissory notes to two shareholders.

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 May and July 2008, we received an additional \$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 an additional \$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 an additional \$1,145,000 in total from the Investors pursuant to the amended Facilities, which brought our total principal balance owed under the Multi-Draw Term Loan Notes to \$9,033,127, and left \$466,873 to draw from the Facilities at December 31, 2010. We analyzed the Facilities in accordance with the authoritative literature with respect to derivatives related to the contingent conversion feature of the promissory notes at a variable exercise price that existed when the notes were first entered into. According to our analysis, the resulting derivatives were not material to the transaction or to the financial statements taken as a whole and, as a result, we did not record the derivative liabilities at each draw date. In December 2009, the Facility was amended such that the conversion feature was deleted in its entirety.

We believe that continued access to the amended Facilities, in combination with cash generated from customer collections, will provide sufficient funds through June 30, 2011. However, we would require additional capital in the immediate short term if our ability to draw on the amended Facilities is restricted or terminated. Other 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. We expect that we may need additional capital to reach a sustainable level of positive cash flow. Although the Investors who have provided the amended Facilities historically have demonstrated a willingness to grant access to the Facilities and renegotiate terms of previous credit arrangements there is no assurance they will continue to do so in the future. If 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 at all, 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, 2010 and 2009:

	<u>2010</u>	<u>2009</u>
Raw materials	\$ 143,338	\$ 123,421
Work in progress	45,277	49,350
Finished goods	221,871	185,448
Total	<u>\$ 410,486</u>	<u>\$ 358,219</u>

### 4. Promissory Notes Payable

At December 31, 2010 and 2009, notes payable consisted of the following:

	<u>2010</u>	<u>2009</u>
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% (see Note 2)	\$ 9,033,127	\$ 7,888,127
Total notes payable, long-term	<u>\$ 9,033,127</u>	<u>\$ 7,888,127</u>

### 5. Income Taxes

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

	<u>2010</u>	<u>2009</u>
Federal tax (benefit) at statutory rate	\$ (674,434)	\$ (941,240)
Expiration of net operating loss carryforwards	531,078	486,462
Expiration of tax credits	145,000	114,000
Change in valuation allowance	(5,663)	339,840
Other	4,019	938
Provision for income taxes, net	<u>\$ —</u>	<u>\$ —</u>

At December 31, 2010 and 2009, the components of the Company's deferred taxes are as follows:

	<u>2010</u>	<u>2009</u>
Deferred tax assets (liabilities)		
Net operating loss carryforwards	\$ 9,654,193	\$ 9,766,585
Tax credits	33,000	178,000
Accrued compensation	32,448	31,480
Depreciation	(4,406)	1,204
Stock-based compensation	196,743	140,820
Accrued related party interest	460,692	260,771
Other	2,888	2,361
Total	<u>10,375,558</u>	<u>10,381,221</u>
Less: Valuation allowance	<u>(10,375,558)</u>	<u>(10,381,221)</u>
Net deferred tax asset	<u>\$ —</u>	<u>\$ —</u>

The Company has the following net operating loss and research and development (R&D) tax credit carryforwards available at December 31, 2010:

Year of Expiration	Net Operating Losses	R&D Tax Credits
2011	\$ 5,277,000	\$ 33,000
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	—
Total	<u>\$28,395,000</u>	<u>\$ 33,000</u>

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, 2010 and 2009:

	Year Ended December 31, 2010		Year Ended December 31, 2009	
	Shares	Wgtd. Avg. Exercise Price	Shares	Wgtd. Avg. Exercise Price
Outstanding at beginning of year	2,218,750	\$ 0.12	2,218,750	\$ 0.12
Granted	2,000,000	0.07	—	—
Exercised	—	—	—	—
Forfeited	—	—	—	—
Outstanding at end of year	<u>4,218,750</u>	<u>\$ 0.10</u>	<u>2,218,750</u>	<u>\$ 0.12</u>
Warrants exercisable at year end	<u>4,218,750</u>	<u>\$ 0.10</u>	<u>2,218,750</u>	<u>\$ 0.12</u>

During the year ended December 31, 2010, the Company issued a total of 2,000,000 warrants 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 \$97,220 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 November 2015.

### Stock compensation plans

During 1998, we adopted the 1998 Stock Option Plan ("the Plan"). An aggregate of 4,000,000 shares of common stock are 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 purchase price of the common stock underlying each option may not be less than the fair market value at the date the option is granted (110% of fair market value for optionees that own more than 10% of the voting power of the Company). The Plan expired on August 31, 2008. The options are exercisable for up to ten years from the grant date. As of December 31, 2010, there were outstanding options to purchase 6,825,000 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 7,739,815 (net of cancellations) shares of Company common stock. During the years ended December 31, 2010 and December 31, 2009, the Company issued, outside of the Plan, non-incentive stock options for an aggregate of 5,324,815 and 1,765,000 shares, respectively, of Company common stock.

Certain options awarded during 2010 and 2009 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 2010 and 2009, and the status of stock options outstanding at December 31, 2010 and 2009:

	Year Ended December 31, 2010		Year Ended December 31, 2009	
	Shares	Wgt. Avg. Exercise Price	Shares	Wgt. Avg. Exercise Price
Outstanding at beginning of year	9,265,000	\$ 0.09	8,000,000	\$ 0.09
Granted	5,324,815	0.10	1,765,000	0.09
Exercised	—	—	(40,000)	(0.07)
Forfeited	(25,000)	(0.25)	(460,000)	(0.17)
Outstanding at end of year	<u>14,564,815</u>	<u>\$ 0.09</u>	<u>9,265,000</u>	<u>\$ 0.09</u>
Stock options exercisable at year end	<u>7,896,510</u>	<u>\$ 0.08</u>	<u>5,846,667</u>	<u>\$ 0.09</u>

Weighted average fair value of options granted was \$0.08 and \$0.06 per share for the years ended December 31, 2010 and 2009, respectively.

As of December 31, 2010, there was \$14,500 of aggregate intrinsic value of outstanding stock options, including \$7,250 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 2010 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, 2010. This amount will change based on the fair market value of the Company's stock. Total intrinsic value of options exercised was \$0 and \$2,600 for the years ended December 31, 2010 and 2009, respectively.

The following table summarizes information about stock options outstanding at December 31, 2010:

Range of Exercise Prices	Number Outstanding at December 31, 2010	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price
\$0.04-\$0.07	2,825,000	6.50	\$ 0.06
\$0.08-\$0.09	5,650,000	6.42	\$ 0.08
\$0.10-\$0.25	<u>6,089,815</u>	<u>8.65</u>	<u>\$ 0.10</u>
	<u>14,564,815</u>	<u>7.37</u>	<u>\$ 0.09</u>

Total unrecognized compensation cost at December 31, 2010 of \$327,499 is expected to be recognized over a weighted average period of 2.6 years.

In February 2011, the Company issued ten-year options to employees and directors to purchase 5,391,899 common shares.

## 7. Related Party Transactions

We incurred \$21,902 and \$27,845 in legal fees during the years ended December 31, 2010 and 2009, 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, 2010 and 2009, accounts payable include \$149 and \$4,895, respectively, due to Breslow & Walker, LLP for services rendered.

On August 7, 2007, the Board of Directors of the Company agreed to outsource to Roderick de Greef, a director of the Company, 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), effective as of July 1, 2007 (since he was effectively serving the Company in such capacity since such date), on terms to be agreed upon by Mike Rice, the President of the Company, and Mr. de Greef, and approved by the Board. Subsequent to August 7, 2007, Mr. Rice and Mr. de Greef agreed to the following terms: (1) a fee of \$10,000 per month, (2) reimbursement of business expenses, (3) 90 day advance notice of termination by the Company, and (4) the payment of one (1) year's fees (\$120,000) if terminated in connection with a Change of Control transaction. As used herein the term Change of Control means (A) there shall be consummated (1) any consolidation or merger of the Company in which the Company is not the continuing or surviving corporation or pursuant to which shares of the Company's Common Stock would be converted into cash, securities or other property, other than a merger of the Company in which the holders of the Company's Common Stock immediately prior to the merger have the same proportionate ownership of at least 50% of common stock of the surviving corporation immediately after the merger, or (2) any sale, lease, exchange or other transfer (in one transaction or a series of related transactions) of all, or substantially all, of the assets of the Company; (B) the shareholders of the Company approve any plan or proposal for the liquidation or dissolution of the Company; or (C) any person (as such term is used in Sections 13(d) and 14(d) (2) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")), shall become the beneficial owner (within the meaning of Rule 13d-3 under the Exchange Act) of 50% or more of the Company's outstanding Common Stock. On November 14, 2007, the arrangement was approved by the Board of Directors of the Company. Beginning on August 1, 2009, Mr. de Greef's fees were decreased 20% in conjunction with the Company's 10% across the board pay cuts. The Company incurred consulting fees of \$96,000 and \$110,000 under this arrangement for years ended December 31, 2010 and 2009, respectively.

## 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:

Year Ending December 31	
2011	\$ 274,086
2012	285,049
2013	296,451
2014	77,077
Total	<u>\$ 932,663</u>

Rental expense for this facility lease for the years ended December 31, 2010 and 2009 totaled \$345,404 and \$278,788, respectively. These amounts include the Company's proportionate share of property taxes and other operating expenses as defined by the lease.

## Employment agreement

We have an employment agreement with the Chief Executive 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" no less than 90 days prior to the expiration of the initial term or any subsequent term. The agreement provides 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 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, and, on behalf of the Company, was to apply for additional SBIR grants; 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 defending 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.

On December 27, 2007, John G. Baust and John M. Baust, each separately, filed complaints with the State of New York, Division of Human Rights ("the Division") alleging unlawful discrimination practices against the Company based on wrongful termination due to retaliation for bringing complaints of sexual harassment on the part of Michael Rice, the Company's Chairman and Chief Executive Officer. The Company responded to the complaints, filed by John G. Baust on January 22, 2008, and by John M. Baust on January 14, 2008. On March 5, 2008, the Company was notified by the Division that these complaints were ordered dismissed and the files were closed due to the Division's lack of jurisdiction in the matter, the Division having determined that the civil suits filed by John G. Baust and John M. Baust had precedence and precluded the Division from asserting jurisdiction. The determination was successfully appealed and overturned by Justice Tait on October 23, 2008. On February 4, 2010, the Appellate Division of the Supreme Court of New York, Third Department affirmed Justice Tait's opinion that John G. Baust and John M. Baust could pursue a complaint in the Division. On March 15, 2010, the Division delivered to the Supreme Court, Appellate Division, a Notice of Motion and Motion for Reargument or Leave to Appeal. The motion was returnable April 5, 2010. On May 17, 2010, the Appellate Division denied the Division's motion for reargument or, in the alternative, for permission to appeal to the Court of Appeals. Thereafter, on June 23, 2010 the Division served a Motion for Leave to Appeal to the Court of Appeals. On October 14, 2010 the New York State Court of Appeals denied the Division's Motion for Leave to Appeal. Thus, the Complaints of John G. Baust and John M. Baust have been reinstated to the New York State Division of Human Rights. The Company retains all of its rights to oppose the complaints of Messrs. Baust before the Division and the Company will vigorously oppose any attempt at a recovery.

We have not made any accrual related to future litigation outcomes as of December 31, 2010 or 2009.

## 9. Concentration of Risk

### Significant customers

Sales to individual customers representing more than 10% of total revenue totaled approximately \$535,000 and \$494,000 in 2010 and 2009, respectively. In 2010 the amount in product sales revenue were from two customers, one which totaled \$321,000 representing 16% of total product sales, and the other which totaled \$213,000 representing 10% of total product sales. In 2009 the amount in product sales revenue were from two customers, one which totaled \$334,000 representing 21% of total product sales, and the other which totaled \$160,000 representing 10% of total product sales.

At December 31, 2010, one customer accounted for approximately 24% of total gross accounts receivable, and at December 31, 2009, three customers accounted for approximately 47% of total gross accounts receivable.

## 10. Supplemental Cash Flow Disclosures

### Actual cash payments

No cash was paid for either interest expense or income taxes for the years ended December 31, 2010 and 2009.

### Non-cash investing and financing activities

During the year ended December 31, 2010, the Company issued a total of 2,000,000 warrants 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 \$97,220 which was recorded as Deferred financing costs and is being amortized to expense over the term of the notes.

## 11. Subsequent Events

Subsequent to December 31, 2010, the Company received an additional \$350,000 in total from Messrs. Girschweiler and Villiger pursuant to the amended Multi-Draw Term Loan Facility described in Note 2.

In February 2011, the Company issued 5,391,899 ten-year options to employees and directors.

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AMENDMENT NO. 3  
TO  
SECURED MULTI-DRAW  
TERM LOAN FACILITY AGREEMENT

This Amendment No. 3 to the Secured Multi-Draw Term Loan Facility Agreement, dated as of the 11<sup>th</sup> day of January, 2008, by and between BioLife Solutions, Inc., and Thomas Girschweiler and Walter Villiger, as previously amended on the 20<sup>th</sup> day of October, 2008 and December 16, 2009 (the "Agreement"), is entered into as of the 29<sup>th</sup> day of November, 2010. Any capitalized term not otherwise defined herein shall have the meaning ascribed to such term in the Agreement.

The third WHEREAS clause of the Agreement is hereby amended to read as follows:

"WHEREAS, each Investor is willing to extend to the Company a secured multi-draw term loan facility (the "Facility") of \$4,750,000, which Facility shall (a) incorporate (i) a refinancing of the Investor's Notes and accrued interest thereon, in the aggregate amount of \$1,431,563.30, (ii) advances of principal made to the date hereof, and (iii) a commitment from the Investor to advance to the Company, from time to time, additional amounts which, when added to the monies referred to in items (a)(i) and (ii) hereof will total, in the aggregate, the amount of the Facility, (b) bear interest at the rate of 7% per annum on the principal balance outstanding from time to time, (c) be evidenced by a secured multi-draw term loan note in the form attached hereto as Exhibit A (the "Multi-Draw Term Loan Note"), (d) become due and payable, together with accrued interest thereon, on the earlier of (i) January 11, 2013 (the "Maturity Date"), or (ii) an Event of Default (as defined in the Multi-Draw Term Loan Note), and (e) be secured by all of the Company's assets."

Section 1 of the Agreement is hereby amended to read as follows:

"1. The Facility.

(a) Commitment to Extend Facility. Each Investor hereby agrees to make available to the Company, from time to time during the period commencing with the date hereof through the Maturity Date, for working capital purposes, the principal sum of \$4,750,000, consisting of:

- (i) A refinancing of the Investor's Notes and accrued interest thereon in the aggregate amount of \$1,431,563.30 (the "Refinanced Amount");
- (ii) Advances of principal made to the date hereof ("Advances"); and

(iii) Additional advances which, when added to the Refinanced Amount and the Advances, will total, in the aggregate, the amount of the Facility (each an "Additional Advance"), in accordance with Section 3 hereof."

Section 2 of the Agreement is hereby amended to read as follows:

"2. Closing. Concurrently with the execution and delivery of this Agreement (a) the Company is issuing to each Investor a Multi-Draw Term Loan Note, registered in the name of the Investor, in the principal amount of \$4,750,000, (b) each Investor is delivering to the Company the Investor's Notes, and by wire transfer the amount set forth in Section 1(a)(ii) above, and (c) the parties are executing and delivering a Security Agreement in the form attached hereto as Exhibit B."

Except as amended hereby, all of the provisions of the Agreement remain in full force and effect.

This Amendment may be executed in several counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this Amendment No. 3 to the Agreement as of the day and year first above written.

BioLife Solutions, Inc.

By: /S/ MICHAEL RICE  
Mike Rice, President & CEO

/S/ THOMAS GIRSCHWEILER  
Thomas Girschweiler

/S/ WALTER VILLIGER  
Walter Villiger

THE ISSUANCE OF THE SECURITIES EVIDENCED HEREBY HAS NOT BEEN REGISTERED WITH THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR THE SECURITIES COMMISSION OF ANY STATE UNDER ANY STATE SECURITIES LAW. THE SECURITIES WERE ISSUED PURSUANT TO A SAFE HARBOR FROM REGISTRATION UNDER REGULATIONS ("REGULATIONS") PROMULGATED UNDER THE ACT. THE SECURITIES MAY NOT BE OFFERED, SOLD, OR OTHERWISE TRANSFERRED UNLESS SUCH OFFERS, SALES, AND TRANSFERS ARE REGISTERED UNDER THE ACT AND APPLICABLE STATE SECURITIES LAWS, ARE MADE PURSUANT TO AN AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THOSE LAWS, OR ARE MADE IN ACCORDANCE WITH REGULATIONS PROMULGATED UNDER THE ACT. FURTHERMORE, HEDGING TRANSACTIONS INVOLVING THE SECURITIES MAY NOT BE CONDUCTED UNLESS IN COMPLIANCE WITH THE ACT.

\$4,750,000

Bothell, Washington  
January 11, 2008  
(as amended October  
20, 2008, December  
16, 2009 and  
November 29, 2010)

**BIOLIFE SOLUTIONS, INC.**

**SECURED MULTI-DRAW TERM LOAN NOTE**

BioLife Solutions, Inc., a Delaware corporation (the "Maker"), for value received, hereby promises to pay to Thomas Girschweiler (the "Holder"), the principal amount of Four Million Seven Hundred and Fifty Thousand Dollars (\$4,750,000) or such lesser amount as shall equal the aggregate amount of the unpaid Refinanced Amount and the principal amounts of Advances and Additional Advances made to the Company by the Holder (collectively, "Advances") under, and as defined in, the Secured Multi-Draw Term Loan Facility Agreement (as defined below), together with interest on the unpaid amount thereof from the date hereof until paid in accordance with the terms hereof.

1. Secured Multi-Draw Term Loan Note ("Note").

1.1 Interest Rate. The rate of interest hereunder ("Interest Rate") shall equal seven percent (7%) per annum and shall be computed on the basis of a 365 day year for the actual number of days elapsed; provided that in no event shall the interest rate be less than the minimum rate of interest required in order to avoid the imputation of interest for federal income tax purposes.

1.2 Payment. Subject to the provisions of Section 2 hereof regarding the payment of this note upon the occurrence of an Acquisition (as defined therein) the Advances plus all accrued interest thereon shall become due and payable in one lump sum on the earlier of (a) January 11, 2013 (the "Due Date") or (b) an Event of Default (as defined below). The Maker may at any time prepay in whole or in part the principal and interest accrued under this Note. Any payment will be applied first to the payment of any and all accrued and unpaid interest through the payment date and second to the payment of principal remaining due hereunder. Payment shall be made at the offices or residence of the Holder, or at such other place as the Holder shall have designated to the Maker in writing, in lawful money of the United States of America.

1.3 Secured Multi-Draw Term Loan Facility Agreement. This Note is one of the Secured Multi-Draw Term Notes issued pursuant to a Secured Multi-Draw Term Loan Facility Agreement, dated as of the 11<sup>th</sup> day of January, 2008 and as amended as of the 20<sup>th</sup> day of October, 2008, the 16<sup>th</sup> day of December, 2009, and the \_\_\_ day of November, 2010, by and between Maker, Holder and Walter Villiger (the "Agreement") and is subject and entitled to the terms, conditions, covenants, protections, benefits and agreements contained therein and the Security Agreement referenced to therein. Reference is hereby made to the Agreement for a statement of all of the terms and conditions under which the Advances evidenced hereby have been made or are to be made and are to be repaid. Any capitalized terms not otherwise defined herein shall have the meaning ascribed to such terms in the Agreement.

2 Acquisition. In the event the Maker is to be acquired, whether by means of a merger, sale of all or substantially all of the assets of the Maker, sale of securities representing more than fifty percent (50%) of the equity interests in Maker, or otherwise, prior to the Due Date (an "Acquisition"), then the Issue Price plus all accrued but previously unpaid interest thereon shall become due and payable in one lump sum immediately upon the closing of such Acquisition.

3. Events of Default. The Advances and accrued interest on this Note shall, at the option of the Holder, become due and payable, subject to applicable law, upon the happening of any one of the following specified events:

(a) a decree or order of a court having jurisdiction is entered adjudging the Maker a bankrupt or insolvent, or issuing sequestration or process of execution against, or against any substantial part of, the property of the Maker, or appointing a receiver of the Maker or any substantial part of its property, or ordering the winding-up or liquidation of its affairs, unless the Maker actively and diligently contests in good faith such decree or order and has such decree or order stayed on or before 60 days after the issue of such decree or order by a court;

(b) an order is made or a resolution is passed for the winding-up or liquidation of the Maker, or the Maker institutes proceedings to be adjudicated a bankrupt or insolvent, or consents to the institution of bankruptcy or insolvency proceedings against it, or consents to the filing of any such petition or to the appointment of a receiver of the Maker or any substantial part of its property, or makes a general assignment for the benefit of creditors, or admits in writing its inability to pay its debts generally as they become due, or takes corporate action in furtherance of any of the aforesaid purposes;

(c) the Maker defaults in observing or performing any material covenant or condition of this Note or the Secured Multi-Draw Term Loan Facility Agreement on its part to be observed or performed, and such default continues for a period of fifteen (15) days after notice in writing has been given to the Maker by the Holder specifying such default and requiring the Maker to rectify the same;

(d) an encumbrancer takes possession of all or substantially all of the property of the Maker, or any process of execution is levied or enforced upon or against all or substantially all of the property of the Maker and remains unsatisfied for such period as would permit any such property to be sold thereunder, unless the Maker actively and diligently contests in good faith such process, but in that event the Maker shall, if the Holder so requires, give security which, in the discretion of the holder, is sufficient to pay in full the amount thereby claimed in case the claim is held to be valid.

4. Intentionally Omitted.

5. Miscellaneous.

5.1 Transfer of Note. This Note shall not be transferable or assignable in any manner and no interest shall be pledged or otherwise encumbered by the Holder without the consent of the Maker, which consent shall not be unreasonably withheld.

5.2 Titles and Subtitles. The titles and subtitles used in this Note are for convenience only and are not to be considered in construing or interpreting this Note.

5.3 Attorneys' Fees. If any action at law or in equity is necessary to enforce or interpret the terms of this Note, the prevailing party shall be entitled to reasonable attorneys' fees, costs and disbursements in addition to any other relief to which such party may be entitled.

5.4 Amendments and Waivers. This Note may be amended and the observance of any other term of this Note may be waived (either generally or in a particular instance and either retroactively or prospectively), with the written consent of the Maker and the Holder. The Maker waives presentment, demand for performance, notice of nonperformance, protest, notice of protest, and notice of dishonor. No delay on the part of the Holder in exercising any right hereunder shall operate as a waiver of such right under this Note.

5.5 Severability. If one or more provisions of this Note are held to be unenforceable under applicable law, such provision shall be excluded from this Note and the balance of the Note shall be interpreted as if such provision were so excluded and shall be enforceable in accordance with its terms.

5.6 Governing Law. This Note shall be governed by and construed and enforced in accordance with the laws of the State of Delaware, without giving effect to its conflicts of laws principles.

5.7 Counterparts. This Note may be executed in several counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

Executed as of the date first written above.

**MAKER:**

**BIOLIFE SOLUTIONS, INC.**  
a Delaware corporation

By: /S/ MICHAEL RICE

Title: CEO, President

Name: Michael Rice

Address: 3303 Monte Villa Parkway  
Suite 310  
Bothell, WA 98021

**HOLDER:**

/S/ THOMAS GIRSCHWEILER

Thomas Girschweiler

THE ISSUANCE OF THE SECURITIES EVIDENCED HEREBY HAS NOT BEEN REGISTERED WITH THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR THE SECURITIES COMMISSION OF ANY STATE UNDER ANY STATE SECURITIES LAW. THE SECURITIES WERE ISSUED PURSUANT TO A SAFE HARBOR FROM REGISTRATION UNDER REGULATIONS ("REGULATIONS") PROMULGATED UNDER THE ACT. THE SECURITIES MAY NOT BE OFFERED, SOLD, OR OTHERWISE TRANSFERRED UNLESS SUCH OFFERS, SALES, AND TRANSFERS ARE REGISTERED UNDER THE ACT AND APPLICABLE STATE SECURITIES LAWS, ARE MADE PURSUANT TO AN AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THOSE LAWS, OR ARE MADE IN ACCORDANCE WITH REGULATIONS PROMULGATED UNDER THE ACT. FURTHERMORE, HEDGING TRANSACTIONS INVOLVING THE SECURITIES MAY NOT BE CONDUCTED UNLESS IN COMPLIANCE WITH THE ACT.

\$4,750,000

Bothell, Washington  
January 11, 2008  
(as amended October  
20, 2008, December  
16, 2009 and  
November 29, 2010)

**BIOLIFE SOLUTIONS, INC.**

**SECURED MULTI-DRAW TERM LOAN NOTE**

BioLife Solutions, Inc., a Delaware corporation (the "Maker"), for value received, hereby promises to pay to Walter Villiger (the "Holder"), the principal amount of Four Million Seven Hundred and Fifty Thousand Dollars (\$4,750,000) or such lesser amount as shall equal the aggregate amount of the unpaid Refinanced Amount and the principal amounts of Advances and Additional Advances made to the Company by the Holder (collectively, "Advances") under, and as defined in, the Secured Multi-Draw Term Loan Facility Agreement (as defined below), together with interest on the unpaid amount thereof from the date hereof until paid in accordance with the terms hereof.

1. Secured Multi-Draw Term Loan Note ("Note").

1.1 Interest Rate. The rate of interest hereunder ("Interest Rate") shall equal seven percent (7%) per annum and shall be computed on the basis of a 365 day year for the actual number of days elapsed; provided that in no event shall the interest rate be less than the minimum rate of interest required in order to avoid the imputation of interest for federal income tax purposes.

1.2 Payment. Subject to the provisions of Section 2 hereof regarding the payment of this note upon the occurrence of an Acquisition (as defined therein) the Advances plus all accrued interest thereon shall become due and payable in one lump sum on the earlier of (a) January 11, 2013 (the "Due Date") or (b) an Event of Default (as defined below). The Maker may at any time prepay in whole or in part the principal and interest accrued under this Note. Any payment will be applied first to the payment of any and all accrued and unpaid interest through the payment date and second to the payment of principal remaining due hereunder. Payment shall be made at the offices or residence of the Holder, or at such other place as the Holder shall have designated to the Maker in writing, in lawful money of the United States of America.

1.3 Secured Multi-Draw Term Loan Facility Agreement. This Note is one of the Secured Multi-Draw Term Notes issued pursuant to a Secured Multi-Draw Term Loan Facility Agreement, dated as of the 11<sup>th</sup> day of January, 2008 and as amended as of the 20<sup>th</sup> day of October, 2008, the 16<sup>th</sup> day of December, 2009, and the \_\_\_ day of November, 2010, by and between Maker, Holder and Thomas Girschweiler (the "Agreement") and is subject and entitled to the terms, conditions, covenants, protections, benefits and agreements contained therein and the Security Agreement referenced to therein. Reference is hereby made to the Agreement for a statement of all of the terms and conditions under which the Advances evidenced hereby have been made or are to be made and are to be repaid. Any capitalized terms not otherwise defined herein shall have the meaning ascribed to such terms in the Agreement.

2 Acquisition. In the event the Maker is to be acquired, whether by means of a merger, sale of all or substantially all of the assets of the Maker, sale of securities representing more than fifty percent (50%) of the equity interests in Maker, or otherwise, prior to the Due Date (an "Acquisition"), then the Issue Price plus all accrued but previously unpaid interest thereon shall become due and payable in one lump sum immediately upon the closing of such Acquisition.

3. Events of Default. The Advances and accrued interest on this Note shall, at the option of the Holder, become due and payable, subject to applicable law, upon the happening of any one of the following specified events:

(a) a decree or order of a court having jurisdiction is entered adjudging the Maker a bankrupt or insolvent, or issuing sequestration or process of execution against, or against any substantial part of, the property of the Maker, or appointing a receiver of the Maker or any substantial part of its property, or ordering the winding-up or liquidation of its affairs, unless the Maker actively and diligently contests in good faith such decree or order and has such decree or order stayed on or before 60 days after the issue of such decree or order by a court;

(b) an order is made or a resolution is passed for the winding-up or liquidation of the Maker, or the Maker institutes proceedings to be adjudicated a bankrupt or insolvent, or consents to the institution of bankruptcy or insolvency proceedings against it, or consents to the filing of any such petition or to the appointment of a receiver of the Maker or any substantial part of its property, or makes a general assignment for the benefit of creditors, or admits in writing its inability to pay its debts generally as they become due, or takes corporate action in furtherance of any of the aforesaid purposes;

(c) the Maker defaults in observing or performing any material covenant or condition of this Note or the Secured Multi-Draw Term Loan Facility Agreement on its part to be observed or performed, and such default continues for a period of fifteen (15) days after notice in writing has been given to the Maker by the Holder specifying such default and requiring the Maker to rectify the same;

(d) an encumbrancer takes possession of all or substantially all of the property of the Maker, or any process of execution is levied or enforced upon or against all or substantially all of the property of the Maker and remains unsatisfied for such period as would permit any such property to be sold thereunder, unless the Maker actively and diligently contests in good faith such process, but in that event the Maker shall, if the Holder so requires, give security which, in the discretion of the holder, is sufficient to pay in full the amount thereby claimed in case the claim is held to be valid.

4. Intentionally Omitted.

5. Miscellaneous.

5.1 Transfer of Note. This Note shall not be transferable or assignable in any manner and no interest shall be pledged or otherwise encumbered by the Holder without the consent of the Maker, which consent shall not be unreasonably withheld.

5.2 Titles and Subtitles. The titles and subtitles used in this Note are for convenience only and are not to be considered in construing or interpreting this Note.

5.3 Attorneys' Fees. If any action at law or in equity is necessary to enforce or interpret the terms of this Note, the prevailing party shall be entitled to reasonable attorneys' fees, costs and disbursements in addition to any other relief to which such party may be entitled.

5.4 Amendments and Waivers. This Note may be amended and the observance of any other term of this Note may be waived (either generally or in a particular instance and either retroactively or prospectively), with the written consent of the Maker and the Holder. The Maker waives presentment, demand for performance, notice of nonperformance, protest, notice of protest, and notice of dishonor. No delay on the part of the Holder in exercising any right hereunder shall operate as a waiver of such right under this Note.

5.5 Severability. If one or more provisions of this Note are held to be unenforceable under applicable law, such provision shall be excluded from this Note and the balance of the Note shall be interpreted as if such provision were so excluded and shall be enforceable in accordance with its terms.

5.6 Governing Law. This Note shall be governed by and construed and enforced in accordance with the laws of the State of Delaware, without giving effect to its conflicts of laws principles.

5.7 Counterparts. This Note may be executed in several counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

Executed as of the date first written above.

**MAKER:**

**BIOLIFE SOLUTIONS, INC.**  
a Delaware corporation

By: /S/ MICHAEL RICE \_\_\_\_\_

Title: CEO, President

Name: Michael Rice

Address: 3303 Monte Villa Parkway  
Suite 310  
Bothell, WA 98021

**HOLDER:**

/S/ WALTER VILLIGER \_\_\_\_\_

Walter Villiger

\*\*\*\*\*

**Warrant**

**To Purchase Common Stock of**

**BIOLIFE SOLUTIONS, INC.**

\*\*\*\*\*

THE ISSUANCE OF THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE NOT BEEN REGISTERED WITH THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR THE SECURITIES COMMISSION OF ANY STATE UNDER ANY STATE SECURITIES LAW. THIS WARRANT WAS ISSUED PURSUANT TO A SAFE HARBOR FROM REGISTRATION UNDER REGULATIONS ("REGULATIONS") PROMULGATED UNDER THE ACT. THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE OFFERED, SOLD, OR OTHERWISE TRANSFERRED IN THE UNITED STATES OR TO U.S. PERSONS (AS SUCH TERM IS DEFINED IN REGULATIONS) UNLESS SUCH OFFER, SALE, AND TRANSFER ARE REGISTERED UNDER THE ACT AND APPLICABLE STATE SECURITIES LAWS OR ARE MADE PURSUANT TO AN AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THOSE LAWS. FURTHERMORE, HEDGING TRANSACTIONS INVOLVING THE WARRANT OR THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE CONDUCTED UNLESS IN COMPLIANCE WITH THE ACT.

WARRANT TO PURCHASE COMMON STOCK

OF

BIOLIFE SOLUTIONS, INC.

This is to Certify that, FOR VALUE RECEIVED, Thomas Girschweiler, or assigns (the "Holder"), is entitled to purchase, subject to the provisions of this Warrant, from BIOLIFE SOLUTIONS, INC., a Delaware corporation (the "Company"), One Million (1,000,000) fully paid, validly issued, and nonassessable shares of common stock, par value \$.001 per share, of the Company ("Common Stock") at any time or from time to time during the period set forth in Section (a) below, at an exercise price of \$.07 per share. The number of shares of Common Stock to be received upon the exercise of this Warrant and the price to be paid for each share of Common Stock underlying this Warrant may be adjusted from time to time as hereinafter set forth. The shares of Common Stock deliverable upon exercise of this Warrant, as adjusted from time to time, are hereinafter sometimes referred to as "Warrant Shares", and the exercise price, as adjusted from time to time, is hereinafter sometimes referred to as the "Exercise Price".

(a) EXERCISE OF WARRANT.

(1) The Holder may exercise this Warrant, in whole or in part, at any time or from time to time during the period commencing on the date hereof and terminating 5:00 P.M. New York City time on November 29, 2015 (the "Termination Date") by surrendering to the Company, at its principal executive offices, this Warrant accompanied by the Purchase Form attached hereto duly executed and the payment of the Exercise Price for the number of Warrant Shares specified in such Form. Payment may be made in cash, by wire transfer or certified check payable to the order of the Company, by any other lawful consideration as the Company shall determine, or by any combination of such methods of payment. In addition, the Holder may exercise this Warrant, in whole or in part, on a "cashless" basis as provided in Section (a)(2) below by surrendering to the Company this Warrant accompanied by the net issue election notice attached hereto duly executed.

(2) The Holder may elect to receive, without the payment by the Holder of any additional consideration, Warrant Shares equal to the value of this Warrant or any portion hereof by the surrender of this Warrant to the Company, with the net issue election notice annexed hereto duly executed, at the office of the Company. Thereupon, the Company shall issue to the Holder such number of fully paid and nonassessable Warrant Shares as is computed using the following formula:

$$X = \frac{Y(A-B)}{A}$$

- where
- X = the number of Warrant Shares to be issued to the Holder pursuant to this Section (a)(2).
  - Y = the number of Warrant Shares covered by this Warrant in respect of which the net issue election is made (i.e., the right to exercise is being surrendered) pursuant to this Section (a)(2).
  - A = the Current Market Value (as determined under Section (c) hereof) as at the time the net issue election is made pursuant to this Section (a)(2).
  - B = the Exercise Price in effect at the time the net issue election is made pursuant to this Section (a)(2).

(3) The documentation and consideration, if any, delivered in connection with any exercise of this Warrant collectively are referred to as the "Warrant Exercise Documentation." As promptly as practicable, and in any event within five Business Days after receipt of the Warrant Exercise Documentation, the Company shall deliver or cause to be delivered to the Holder (A) certificates representing the number of validly issued, fully paid and nonassessable Warrant Shares specified in the Warrant Exercise Documentation, (B) if applicable, cash in lieu of any fraction of a Warrant Share as provided below, and (C) if this Warrant is exercised only in part, or is exercised on a cashless basis as provided in Section (a)(2) hereof, a new Warrant or Warrants of like tenor, dated the date hereof, evidencing the balance of the Warrant Shares in respect of which this Warrant shall not have been exercised or used in the cashless exercise. Regardless of the date on which the items set forth in clauses (A), (B), and (C) of this Section (a)(3) are delivered, any exercise of this Warrant shall be deemed to have been made at the close of business on the date of delivery of the Warrant Exercise Documentation, and the person entitled to receive Warrant Shares upon such exercise shall be treated for all purposes as having become the record holder of such Warrant Shares at such time.

(b) RESERVATION OF SHARES. The Company shall at all times reserve for issuance and/or delivery upon exercise of this Warrant such number of shares of its Common Stock as shall be required for issuance and delivery upon exercise of this Warrant.

(c) FRACTIONAL SHARES. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. With respect to any fraction of a share called for upon any exercise hereof, the Company shall pay to the Holder an amount in cash equal to such fraction multiplied by the Current Market Value of a share, determined as follows:

(1) If the Common Stock is listed on a national securities exchange or admitted to unlisted trading privileges on such exchange or listed for trading on the NASDAQ system, the Current Market Value shall be the last reported sale price of the Common Stock on such exchange or system on the last business day prior to the date of exercise of this Warrant, or if no such sale is made on such day, the average closing bid and asked prices for such day on such exchange or system; or

(2) If the Common Stock is not so listed or admitted to unlisted trading privileges, the Current Market Value shall be the mean of the last reported bid and asked prices reported by the National Quotation Bureau, Inc. on the last business day prior to the date of the exercise of this Warrant; or

(3) If the Common Stock is not so listed or admitted to unlisted trading privileges and bid and asked prices are not so reported, the Current Market Value shall be an amount determined in such reasonable manner as may be prescribed by the Board of Directors of the Company.

(d) EXCHANGE, TRANSFER, ASSIGNMENT, OR LOSS OF WARRANT. This Warrant is exchangeable and transferable, without expense, at the option of the Holder, upon presentation and surrender hereof to the Company or, at the Company's option, at the office of its stock transfer agent, if any, for other Warrants of different denominations entitling the holder thereof to purchase in the aggregate the same number of shares of Common Stock purchasable hereunder. Upon surrender of this Warrant to the Company at its principal office or at the office of its stock transfer agent, if any, with the Assignment Form annexed hereto duly executed and funds sufficient to pay any transfer tax, the Company shall execute and deliver, without charge, a new Warrant in the name of the assignee named in such instrument of assignment and this Warrant promptly shall be cancelled. This Warrant may be divided or combined with other Warrants which carry the same rights upon presentation hereof at the principal office of the Company or at the office of its stock transfer agent, if any, together with a written notice, signed by the Holder hereof, specifying the names and denominations in which new Warrants are to be issued. The term "Warrant" as used herein includes any Warrants into which this Warrant may be divided or exchanged. Upon receipt by the Company of evidence satisfactory to it of the loss, theft, destruction, or mutilation of this Warrant, and (in the case of loss, theft, or destruction) of reasonably satisfactory indemnification or (if mutilated) upon surrender and cancellation of this Warrant, the Company will execute and deliver a new Warrant of like tenor and date. Any such new Warrant executed and delivered shall constitute an additional contractual obligation on the part of the Company, whether or not this Warrant so lost, stolen, destroyed, or mutilated shall be at any time enforceable by anyone.

(e) RIGHTS OF THE HOLDER. The Holder shall not be entitled, by virtue hereof, to any rights of a stockholder in the Company, either at law or equity, and the rights of the Holder are limited to those expressed in this Warrant and are not enforceable against the Company except to the extent set forth herein.

(f) ANTI-DILUTION PROVISIONS. The Exercise Price in effect at any time and the number and kind of securities purchasable upon the exercise of this Warrant shall be subject to adjustment from time to time upon the happening of certain events as follows:

(1) If the Company shall (i) declare a dividend or make a distribution on its outstanding shares of Common Stock in shares of Common Stock, (ii) subdivide or reclassify its outstanding shares of Common Stock into a greater number of shares, or (iii) combine or reclassify its outstanding shares of Common Stock into a smaller number of shares, then the Exercise Price in effect at the time of the record date for such dividend or distribution or of the effective date of such subdivision, combination, or reclassification shall be proportionately adjusted so that upon exercise of this Warrant after such date, the Holder shall be entitled to receive the aggregate number and kind of shares which, if this Warrant had been exercised by such Holder immediately prior to such date, the Holder would have owned upon such exercise and been entitled to receive upon such dividend, distribution, subdivision, combination, or reclassification.

(2) If the Company shall fix a record date for the issuance of rights or warrants to all holders of its Common Stock entitling them to subscribe for or purchase shares of Common Stock (or securities convertible into Common Stock) at a price per share (or having a conversion price per share) less than the current market price of the Common Stock (as defined in Subsection (6) below) on the record date mentioned below or less than the Exercise Price in effect immediately prior to the date of such issuance, then the Exercise Price shall be adjusted so that the same shall equal the price determined by multiplying the Exercise Price in effect immediately prior to the date of such issuance by a fraction, the numerator of which shall be the sum of the number of shares of Common Stock outstanding on the record date mentioned below and the number of additional shares of Common Stock which the aggregate offering price of the total number of shares of Common Stock so offered (or the aggregate conversion price of the convertible securities so offered) would purchase at such current market price per share of the Common Stock or the Exercise Price in effect immediately prior to such issuance, whichever is higher, and the denominator of which shall be the sum of the number of shares of Common Stock outstanding on such record date and the number of additional shares of Common Stock offered for subscription or purchase (or into which the convertible securities so offered are convertible). Such adjustment shall be made successively whenever such rights or warrants are issued and shall become effective immediately after the record date for the determination of stockholders entitled to receive such rights or warrants. To the extent that shares of Common Stock are not delivered (or securities convertible into Common Stock are not delivered) after the expiration of such rights or warrants, the Exercise Price shall be readjusted to the Exercise Price which would then be in effect had the adjustments made upon the issuance of such rights or warrants been made upon the basis of delivery of only the number of shares of Common Stock (or securities convertible into Common Stock) actually delivered.

(3) If the Company shall hereafter distribute to the holders of its Common Stock evidences of its indebtedness or assets (excluding cash dividends or distributions and dividends or distributions referred to in Subsection (1) above) or subscription rights or warrants (excluding those referred to in Subsection (2) above), then in each such case the Exercise Price in effect thereafter shall be determined by multiplying the Exercise Price in effect immediately prior thereto by a fraction, the numerator of which shall be the total number of shares of Common Stock outstanding multiplied by the current market price per share of Common Stock (as defined in Subsection (6) below), less the fair market value (as determined by the Company's Board of Directors) of said assets or evidences of indebtedness so distributed or of such rights or warrants, and the denominator of which shall be the total number of shares of Common Stock outstanding multiplied by such current market price per share of Common Stock. Such adjustment shall be made successively whenever such a record date is fixed. Such adjustment shall be made whenever any such distribution is made and shall become effective immediately after the record date for the determination of stockholders entitled to receive such distribution.

(4) To the extent that an adjustment has been made for purposes of determining the Exercise Price upon issuance of any rights, options, or warrants to purchase Common Stock, then the subsequent issuance of Common Stock upon actual exercise of the rights, options, or warrants shall be excluded from the adjustment provisions hereof.

(5) Whenever the Exercise Price is adjusted pursuant to Subsections (1), (2), or (3) above, the number of Warrant Shares purchasable upon exercise of this Warrant simultaneously shall be adjusted by multiplying the number of Warrant Shares initially issuable upon exercise of this Warrant by the Exercise Price in effect on the date hereof and dividing the product so obtained by the Exercise Price, as adjusted.

(6) For the purpose of any computation under Subsections (2) and (3) above, the current market price per share of Common Stock at any date shall be deemed to be the average of the daily closing prices of the Common Stock for 20 consecutive trading days before such date. The closing price for each day shall be the last sale price or, in case no such reported sale takes place on such day, the average of the last reported bid and asked prices, in either case on the principal national securities exchange on which the Common Stock is admitted to trading or listed, or if not listed or admitted to trading on such exchange, the average of the highest reported bid and lowest reported asked prices as reported by NASDAQ or other similar organization if NASDAQ is no longer reporting such information, or if not so available, the fair market price as determined by the Board of Directors.

(7) No adjustment in the Exercise Price shall be required unless such adjustment would require an increase or decrease of at least two cents (\$0.02) in such price; provided, however, that any adjustments which by reason of this Subsection (7) are not required to be made shall be carried forward and taken into account in any subsequent adjustment required to be made hereunder. All calculations under this Section (f) shall be made to the nearest cent or to the nearest one-hundredth of a share, as the case may be. Anything in this Section (f) to the contrary notwithstanding, the Company shall be entitled, but shall not be required, to make such changes in the Exercise Price, in addition to those required by this Section (f), as it shall determine, in its sole discretion, to be advisable in order that any dividend or distribution in shares of Common Stock, or any subdivision, reclassification, or combination of Common Stock, hereafter made by the Company shall not result in any federal income tax liability to the holders of Common Stock or securities convertible into Common Stock (including the Warrants).

(8) If, at any time, as a result of an adjustment made pursuant to Subsection (1) above, the Holder of this Warrant, upon exercise, shall become entitled to receive any shares of the Company other than Common Stock, then thereafter the number of such other shares so receivable upon exercise of this Warrant shall be subject to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to the Common Stock contained in Subsections (1) to (7) above.

(9) Irrespective of any adjustments in the Exercise Price or the number or kind of shares purchasable upon exercise of this Warrant, Warrant certificates theretofore or thereafter issued upon exchange, transfer, assignment, loss of certificate, or upon exercise in part may continue to express the same price and number and kind of shares as were stated in the Warrant certificates when the same were issued.

(g) OFFICER'S CERTIFICATE. Whenever the Exercise Price shall be adjusted as required by the provisions of the foregoing Section, the Company forthwith shall file in the custody of its Secretary or an Assistant Secretary at its principal office and with the stock transfer agent responsible for this Warrant, if any, an officer's certificate showing the adjusted Exercise Price determined as herein provided, setting forth in reasonable detail the facts requiring such adjustment, including a statement of the number of additional shares of Common Stock, if any, and such other facts as shall be necessary to show the reason for and the manner of computing such adjustment. Each such officer's certificate shall be made available at all reasonable times for inspection by the Holder and, forthwith after each such adjustment, the Company shall mail a copy of such certificate to the Holder by certified mail. In the event of a failure by the Company to deliver an officer's certificate within thirty (30) days of the occurrence of an event requiring an adjustment under the provisions of Section (f) hereof, the Termination Date shall be extended by the length of time equal to the time between the thirtieth day after the adjustment event and the date the officer's certificate is delivered.

(h) NOTICES TO WARRANT HOLDERS. So long as this Warrant shall be outstanding, (i) if the Company shall pay any dividend or make any distribution upon the Common Stock, (ii) if the Company shall offer to all of the holders of Common Stock for subscription or purchase by them any share of any class or any other rights, or (iii) if any capital reorganization of the Company, reclassification of the capital stock of the Company, consolidation or merger of the Company with or into another corporation, sale, lease, or transfer of all or substantially all of the property and assets of the Company to another corporation, or voluntary or involuntary dissolution, liquidation, or winding up of the Company shall be effected, then in any such case, the Company shall cause to be mailed by certified mail to the Holder, at least ten days prior to the date specified in (x) or (y) below, as the case may be, a notice containing a brief description of the proposed action and stating the date on which (x) a record is to be taken for the purpose of such dividend, distribution, or rights, or (y) such reorganization, reclassification, consolidation, merger, sale, lease, transfer, dissolution, liquidation, or winding up is to take place and the date, if any is to be fixed, as of which the holders of Common Stock or other securities shall receive cash or other property deliverable upon such reorganization, reclassification, consolidation, merger, sale, lease, transfer, dissolution, liquidation, or winding up.

(i) RECLASSIFICATION, REORGANIZATION OR MERGER. In case of any reclassification, capital reorganization, or other change of outstanding shares of Common Stock, or in case of any consolidation or merger of the Company with or into another corporation (other than a merger in which the Company is the continuing corporation and which does not result in any reclassification, capital reorganization, or other change of outstanding shares of Common Stock of the class issuable upon exercise of this Warrant) or in case of any sale, lease, or conveyance to another corporation of all or substantially all of the business and assets of the Company, the Company, as a condition precedent to such transaction, shall cause effective provisions to be made so that the Holder shall have the right thereafter by exercising this Warrant at any time prior to the expiration of this Warrant, to purchase the kind and amount of shares of stock and other securities and property receivable upon such reclassification, capital reorganization or other change, consolidation, merger, sale, or conveyance by a holder of the number of shares of Common Stock which might have been purchased upon exercise of this Warrant immediately prior to such reclassification, capital reorganization or other change, consolidation, merger, sale, lease, or conveyance. Any such provision shall include provision for adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Warrant. The foregoing provisions of this Section (i) shall similarly apply to successive reclassifications, capital reorganizations or other changes of shares of Common Stock and to successive consolidations, mergers, sales, leases, or conveyances. If, in connection with any such reclassification, capital reorganization or other change, consolidation, merger, sale, lease, or conveyance, additional shares of Common Stock shall be issued in exchange, conversion, substitution or payment, in whole or in part, for a security of the Company other than Common Stock, then any such issue shall be treated as an issue of Common Stock covered by the provisions of Subsection (1) of Section (f) hereof.

(j) REGISTRATION UNDER THE SECURITIES ACT OF 1933.

(1) If the Holder is not entitled to resell the Warrant Shares under Rule 144 of the Act, then, within twelve (12) months of the exercise of this Warrant, the Company shall file at its own expense a registration statement on Form S-3 if available for use by the Company (the "Registration Statement"), covering the resale of the Warrant Shares by the Holder thereof, and shall use its best efforts to cause the Registration Statement to become effective and to keep the Registration Statement effective until such time that the Warrant Shares have been sold or the Holder is entitled to sell the Warrant Shares under Rule 144. The Warrant Shares also shall be registered under such state securities laws as the Holder may reasonably request. The Company promptly shall give the Holders written notification of the effectiveness of the Registration Statement under the Act, and, when determined, each state where registered.

(2) Notwithstanding the above, the Company's obligation to file the Registration Statement, and/or to keep the Registration continuously effective shall be suspended during any period that there exists any material, non-public information relating to the Company. Holder recognizes that the occurrence of certain corporate developments, including significant acquisitions, may result in the failure of the Registration Statement to contain all information required in accordance with applicable law until an amendment or supplement is filed and made available to the Holder. Holder recognizes that in such event, sales under the Registration Statement will be suspended until the Company files the necessary amendments or supplements thereto. The Company agrees to use its best efforts to prepare and file with the Securities and Exchange Commission, such amendments and supplements to the Registration Statement, as well as the prospectus used in connection therewith, as may be necessary to keep the Registration Statement effective until such time as all of the Warrant Shares covered by the Registration Statement are sold or the Holder is entitled to sell such Warrant Shares under Rule 144. In connection therewith, the Company shall supply prospectuses and such other documents as the Holder may reasonably request in order to facilitate the sale or other disposition of such Warrant Shares.

(3) If at any time the Company shall determine to register under the Act any of its capital stock (other than a registration pursuant to Section (j) (1), a registration relating solely to the sale of securities to participants in a Company employee benefits plan, a registration on any form which does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Warrant Shares or a registration in which the offer and sale of the only Common Stock being registered is Common Stock issuable upon conversion of debt securities which are also being registered), it shall send to the Holder written notice of such determination and, if within fifteen (15) days after receipt of such notice, the Holder shall so request in writing, the Company shall use its best efforts to include in such registration statement all or any part of the Warrant Shares that the Holder requests to be registered. If the total amount of shares requested by the Holder to be included in such offering exceeds the amount of securities that the managing underwriter determines in its sole discretion is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including the Warrant Shares, which the managing underwriter determines in its sole discretion will not jeopardize the success of the offering (the securities so included to be allocated first, to the Company, and second, to the Holder). The number of shares requested to be included by the Holder shall not be reduced below 10% of the total number of securities to be provided in the registration.

(4) The Company will make timely filings of all required reports in accordance with requirements of the Securities Exchange Act of 1934, as amended.

(5) In the case of a registration under this Section (j), the Company shall bear all costs and expenses of such registration, including, but not limited to, filing fees, "blue sky" fees and expenses, and all NASD, stock exchange listing and qualification fees; provided, however, that the Company shall have no obligation to pay or otherwise bear (i) any portion of the underwriter's commissions or discounts attributable to the Warrant Shares being offered and sold by the Holder, (ii) any stock transfer taxes, (iii) any fees of counsel for the Holder, or (iv) any of such expenses if the payment of such expenses by the Company is prohibited by the laws of a state in which such offering is qualified and only to the extent so prohibited; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun if the registration request is subsequently withdrawn at the request of the Holder.

(6) The Company shall indemnify and hold harmless the Holder of the Warrant Shares covered by the Registration Statement, each underwriter (within the meaning of the Act) of the Warrant Shares, and each person, if any, who controls (within the meaning of the Act) the Holder and/or any such underwriter, from, against, for and in respect of any and all losses, claims, damages, liabilities, expenses (including reasonable attorneys fees), and costs (collectively, the "Liabilities") to which the Holder, underwriter, or controlling person may become subject, under the Act or otherwise, insofar as such Liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement of any material fact contained in the Registration Statement, any preliminary prospectus or final prospectus constituting a part thereof, or any amendment or supplement thereto, or arise out of or are based upon the omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading. The Company shall reimburse the Holder, underwriter, and controlling person for any and all expenses (including reasonable attorneys' fees) reasonably incurred by each such party in connection with investigating or defending any such Liability or action; provided, however, the Company shall not be liable in any such case to the extent that any such Liability arises out of or is based upon an untrue statement or omission in such Registration Statement, preliminary prospectus, final prospectus, amendment or supplement, made in reliance upon and in conformity with information furnished by any Holder, underwriter, or controlling person.

(7) The Holder shall indemnify and hold harmless the Company, each of its directors and officers who have signed such Registration Statement as well as such amendments and supplements thereto, and each person, if any, who controls the Company (within the meaning of the Act), from, against, for and in respect to any and all Liabilities to which the Company or any such director, officer, or controlling person may become subject, under the Act or otherwise, insofar as such Liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement of any material fact contained in such Registration Statement, preliminary prospectus, final prospectus, amendment or supplement, or arise out of or are based upon the omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading. The Holder shall reimburse the Company or any such director, officer, or controlling person for any legal or other expenses reasonably incurred by them or any of them in connection with investigating or defending any such Liability or action; provided, however, in each case, the Holder shall be liable only to the extent that such untrue statement or omission in such Registration Statement, preliminary prospectus, final prospectus, amendment or supplement, was made in reliance upon and in conformity with information furnished by the Holder.

(k) AMENDMENT; WAIVER OF PROVISIONS. This Warrant may not be amended and compliance with any provision hereof may not be waived, except pursuant to a written instrument signed by the parties hereto.

Dated: As of November 29, 2010

**BIOLIFE SOLUTIONS, INC.**

By: /S/ MICHAEL RICE \_\_\_\_\_  
Mike Rice, President

PURCHASE FORM

Dated \_\_\_\_\_, \_\_\_\_

The undersigned hereby irrevocably elects to exercise the within Warrant to the extent of purchasing \_\_\_\_\_ shares of Common Stock and hereby makes payment of \_\_\_\_\_ in payment of the actual exercise price thereof. Please issue and deliver all such shares to the undersigned at the address stated below.

Name:  
(Please typewrite or print in block letters)

Address:

Signature: \_\_\_\_\_

ASSIGNMENT FORM

FOR VALUE RECEIVED, \_\_\_\_\_ hereby sells, assigns, and transfers unto

Name \_\_\_\_\_  
(Please typewrite or print in block letters)

Address \_\_\_\_\_

the right to purchase Common Stock represented by this Warrant to the extent of \_\_\_\_\_ shares as to which such right is exercisable and does hereby irrevocably constitute and appoint \_\_\_\_\_ attorney, to transfer the same on the books of the Company with full power of substitution in the premises.

Date \_\_\_\_\_, \_\_\_\_

Signature \_\_\_\_\_

NET ISSUE ELECTION NOTICE

To: BioLife Solutions, Inc.  
3303 Monte Villa Parkway  
Suite 310  
Bothell, WA 98021

The undersigned hereby elects under Section (a)(2) to surrender the right to purchase \_\_\_\_\_ Warrant Shares pursuant to this Warrant. The certificate(s) for the Warrant Shares issuable upon such net issue election shall be issued in the name of the undersigned or as otherwise indicated below.

\_\_\_\_\_  
Name (please print)

\_\_\_\_\_  
Address

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name for Registration (if different from name above)

Dated: \_\_\_\_\_

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**Warrant**

**To Purchase Common Stock of**

**BIOLIFE SOLUTIONS, INC.**

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THE ISSUANCE OF THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE NOT BEEN REGISTERED WITH THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR THE SECURITIES COMMISSION OF ANY STATE UNDER ANY STATE SECURITIES LAW. THIS WARRANT WAS ISSUED PURSUANT TO A SAFE HARBOR FROM REGISTRATION UNDER REGULATIONS ("REGULATIONS") PROMULGATED UNDER THE ACT. THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE OFFERED, SOLD, OR OTHERWISE TRANSFERRED IN THE UNITED STATES OR TO U.S. PERSONS (AS SUCH TERM IS DEFINED IN REGULATIONS) UNLESS SUCH OFFER, SALE, AND TRANSFER ARE REGISTERED UNDER THE ACT AND APPLICABLE STATE SECURITIES LAWS OR ARE MADE PURSUANT TO AN AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THOSE LAWS. FURTHERMORE, HEDGING TRANSACTIONS INVOLVING THE WARRANT OR THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE CONDUCTED UNLESS IN COMPLIANCE WITH THE ACT.

WARRANT TO PURCHASE COMMON STOCK

OF

BIOLIFE SOLUTIONS, INC.

This is to Certify that, FOR VALUE RECEIVED, Walter Villiger, or assigns (the "Holder"), is entitled to purchase, subject to the provisions of this Warrant, from BIOLIFE SOLUTIONS, INC., a Delaware corporation (the "Company"), One Million (1,000,000) fully paid, validly issued, and nonassessable shares of common stock, par value \$.001 per share, of the Company ("Common Stock") at any time or from time to time during the period set forth in Section (a) below, at an exercise price of \$.07 per share. The number of shares of Common Stock to be received upon the exercise of this Warrant and the price to be paid for each share of Common Stock underlying this Warrant may be adjusted from time to time as hereinafter set forth. The shares of Common Stock deliverable upon exercise of this Warrant, as adjusted from time to time, are hereinafter sometimes referred to as "Warrant Shares", and the exercise price, as adjusted from time to time, is hereinafter sometimes referred to as the "Exercise Price".

(a) EXERCISE OF WARRANT.

(1) The Holder may exercise this Warrant, in whole or in part, at any time or from time to time during the period commencing on the date hereof and terminating 5:00 P.M. New York City time on November 29, 2015 (the "Termination Date") by surrendering to the Company, at its principal executive offices, this Warrant accompanied by the Purchase Form attached hereto duly executed and the payment of the Exercise Price for the number of Warrant Shares specified in such Form. Payment may be made in cash, by wire transfer or certified check payable to the order of the Company, by any other lawful consideration as the Company shall determine, or by any combination of such methods of payment. In addition, the Holder may exercise this Warrant, in whole or in part, on a "cashless" basis as provided in Section (a)(2) below by surrendering to the Company this Warrant accompanied by the net issue election notice attached hereto duly executed.

(2) The Holder may elect to receive, without the payment by the Holder of any additional consideration, Warrant Shares equal to the value of this Warrant or any portion hereof by the surrender of this Warrant to the Company, with the net issue election notice annexed hereto duly executed, at the office of the Company. Thereupon, the Company shall issue to the Holder such number of fully paid and nonassessable Warrant Shares as is computed using the following formula:

$$X = \frac{Y(A-B)}{A}$$

- where X = the number of Warrant Shares to be issued to the Holder pursuant to this Section (a)(2).
- Y = the number of Warrant Shares covered by this Warrant in respect of which the net issue election is made (i.e., the right to exercise is being surrendered) pursuant to this Section (a)(2).
- A = the Current Market Value (as determined under Section (c) hereof) as at the time the net issue election is made pursuant to this Section (a)(2).
- B = the Exercise Price in effect at the time the net issue election is made pursuant to this Section (a)(2).

(3) The documentation and consideration, if any, delivered in connection with any exercise of this Warrant collectively are referred to as the "Warrant Exercise Documentation." As promptly as practicable, and in any event within five Business Days after receipt of the Warrant Exercise Documentation, the Company shall deliver or cause to be delivered to the Holder (A) certificates representing the number of validly issued, fully paid and nonassessable Warrant Shares specified in the Warrant Exercise Documentation, (B) if applicable, cash in lieu of any fraction of a Warrant Share as provided below, and (C) if this Warrant is exercised only in part, or is exercised on a cashless basis as provided in Section (a)(2) hereof, a new Warrant or Warrants of like tenor, dated the date hereof, evidencing the balance of the Warrant Shares in respect of which this Warrant shall not have been exercised or used in the cashless exercise. Regardless of the date on which the items set forth in clauses (A), (B), and (C) of this Section (a)(3) are delivered, any exercise of this Warrant shall be deemed to have been made at the close of business on the date of delivery of the Warrant Exercise Documentation, and the person entitled to receive Warrant Shares upon such exercise shall be treated for all purposes as having become the record holder of such Warrant Shares at such time.

(b) RESERVATION OF SHARES. The Company shall at all times reserve for issuance and/or delivery upon exercise of this Warrant such number of shares of its Common Stock as shall be required for issuance and delivery upon exercise of this Warrant.

(c) FRACTIONAL SHARES. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. With respect to any fraction of a share called for upon any exercise hereof, the Company shall pay to the Holder an amount in cash equal to such fraction multiplied by the Current Market Value of a share, determined as follows:

(1) If the Common Stock is listed on a national securities exchange or admitted to unlisted trading privileges on such exchange or listed for trading on the NASDAQ system, the Current Market Value shall be the last reported sale price of the Common Stock on such exchange or system on the last business day prior to the date of exercise of this Warrant, or if no such sale is made on such day, the average closing bid and asked prices for such day on such exchange or system; or

(2) If the Common Stock is not so listed or admitted to unlisted trading privileges, the Current Market Value shall be the mean of the last reported bid and asked prices reported by the National Quotation Bureau, Inc. on the last business day prior to the date of the exercise of this Warrant; or

(3) If the Common Stock is not so listed or admitted to unlisted trading privileges and bid and asked prices are not so reported, the Current Market Value shall be an amount determined in such reasonable manner as may be prescribed by the Board of Directors of the Company.

(d) EXCHANGE, TRANSFER, ASSIGNMENT, OR LOSS OF WARRANT. This Warrant is exchangeable and transferable, without expense, at the option of the Holder, upon presentation and surrender hereof to the Company or, at the Company's option, at the office of its stock transfer agent, if any, for other Warrants of different denominations entitling the holder thereof to purchase in the aggregate the same number of shares of Common Stock purchasable hereunder. Upon surrender of this Warrant to the Company at its principal office or at the office of its stock transfer agent, if any, with the Assignment Form annexed hereto duly executed and funds sufficient to pay any transfer tax, the Company shall execute and deliver, without charge, a new Warrant in the name of the assignee named in such instrument of assignment and this Warrant promptly shall be cancelled. This Warrant may be divided or combined with other Warrants which carry the same rights upon presentation hereof at the principal office of the Company or at the office of its stock transfer agent, if any, together with a written notice, signed by the Holder hereof, specifying the names and denominations in which new Warrants are to be issued. The term "Warrant" as used herein includes any Warrants into which this Warrant may be divided or exchanged. Upon receipt by the Company of evidence satisfactory to it of the loss, theft, destruction, or mutilation of this Warrant, and (in the case of loss, theft, or destruction) of reasonably satisfactory indemnification or (if mutilated) upon surrender and cancellation of this Warrant, the Company will execute and deliver a new Warrant of like tenor and date. Any such new Warrant executed and delivered shall constitute an additional contractual obligation on the part of the Company, whether or not this Warrant so lost, stolen, destroyed, or mutilated shall be at any time enforceable by anyone.

(e) RIGHTS OF THE HOLDER. The Holder shall not be entitled, by virtue hereof, to any rights of a stockholder in the Company, either at law or equity, and the rights of the Holder are limited to those expressed in this Warrant and are not enforceable against the Company except to the extent set forth herein.

(f) ANTI-DILUTION PROVISIONS. The Exercise Price in effect at any time and the number and kind of securities purchasable upon the exercise of this Warrant shall be subject to adjustment from time to time upon the happening of certain events as follows:

(1) If the Company shall (i) declare a dividend or make a distribution on its outstanding shares of Common Stock in shares of Common Stock, (ii) subdivide or reclassify its outstanding shares of Common Stock into a greater number of shares, or (iii) combine or reclassify its outstanding shares of Common Stock into a smaller number of shares, then the Exercise Price in effect at the time of the record date for such dividend or distribution or of the effective date of such subdivision, combination, or reclassification shall be proportionately adjusted so that upon exercise of this Warrant after such date, the Holder shall be entitled to receive the aggregate number and kind of shares which, if this Warrant had been exercised by such Holder immediately prior to such date, the Holder would have owned upon such exercise and been entitled to receive upon such dividend, distribution, subdivision, combination, or reclassification.

(2) If the Company shall fix a record date for the issuance of rights or warrants to all holders of its Common Stock entitling them to subscribe for or purchase shares of Common Stock (or securities convertible into Common Stock) at a price per share (or having a conversion price per share) less than the current market price of the Common Stock (as defined in Subsection (6) below) on the record date mentioned below or less than the Exercise Price in effect immediately prior to the date of such issuance, then the Exercise Price shall be adjusted so that the same shall equal the price determined by multiplying the Exercise Price in effect immediately prior to the date of such issuance by a fraction, the numerator of which shall be the sum of the number of shares of Common Stock outstanding on the record date mentioned below and the number of additional shares of Common Stock which the aggregate offering price of the total number of shares of Common Stock so offered (or the aggregate conversion price of the convertible securities so offered) would purchase at such current market price per share of the Common Stock or the Exercise Price in effect immediately prior to such issuance, whichever is higher, and the denominator of which shall be the sum of the number of shares of Common Stock outstanding on such record date and the number of additional shares of Common Stock offered for subscription or purchase (or into which the convertible securities so offered are convertible). Such adjustment shall be made successively whenever such rights or warrants are issued and shall become effective immediately after the record date for the determination of stockholders entitled to receive such rights or warrants. To the extent that shares of Common Stock are not delivered (or securities convertible into Common Stock are not delivered) after the expiration of such rights or warrants, the Exercise Price shall be readjusted to the Exercise Price which would then be in effect had the adjustments made upon the issuance of such rights or warrants been made upon the basis of delivery of only the number of shares of Common Stock (or securities convertible into Common Stock) actually delivered.

(3) If the Company shall hereafter distribute to the holders of its Common Stock evidences of its indebtedness or assets (excluding cash dividends or distributions and dividends or distributions referred to in Subsection (1) above) or subscription rights or warrants (excluding those referred to in Subsection (2) above), then in each such case the Exercise Price in effect thereafter shall be determined by multiplying the Exercise Price in effect immediately prior thereto by a fraction, the numerator of which shall be the total number of shares of Common Stock outstanding multiplied by the current market price per share of Common Stock (as defined in Subsection (6) below), less the fair market value (as determined by the Company's Board of Directors) of said assets or evidences of indebtedness so distributed or of such rights or warrants, and the denominator of which shall be the total number of shares of Common Stock outstanding multiplied by such current market price per share of Common Stock. Such adjustment shall be made successively whenever such a record date is fixed. Such adjustment shall be made whenever any such distribution is made and shall become effective immediately after the record date for the determination of stockholders entitled to receive such distribution.

(4) To the extent that an adjustment has been made for purposes of determining the Exercise Price upon issuance of any rights, options, or warrants to purchase Common Stock, then the subsequent issuance of Common Stock upon actual exercise of the rights, options, or warrants shall be excluded from the adjustment provisions hereof.

(5) Whenever the Exercise Price is adjusted pursuant to Subsections (1), (2), or (3) above, the number of Warrant Shares purchasable upon exercise of this Warrant simultaneously shall be adjusted by multiplying the number of Warrant Shares initially issuable upon exercise of this Warrant by the Exercise Price in effect on the date hereof and dividing the product so obtained by the Exercise Price, as adjusted.

(6) For the purpose of any computation under Subsections (2) and (3) above, the current market price per share of Common Stock at any date shall be deemed to be the average of the daily closing prices of the Common Stock for 20 consecutive trading days before such date. The closing price for each day shall be the last sale price or, in case no such reported sale takes place on such day, the average of the last reported bid and asked prices, in either case on the principal national securities exchange on which the Common Stock is admitted to trading or listed, or if not listed or admitted to trading on such exchange, the average of the highest reported bid and lowest reported asked prices as reported by NASDAQ or other similar organization if NASDAQ is no longer reporting such information, or if not so available, the fair market price as determined by the Board of Directors.

(7) No adjustment in the Exercise Price shall be required unless such adjustment would require an increase or decrease of at least two cents (\$0.02) in such price; provided, however, that any adjustments which by reason of this Subsection (7) are not required to be made shall be carried forward and taken into account in any subsequent adjustment required to be made hereunder. All calculations under this Section (f) shall be made to the nearest cent or to the nearest one-hundredth of a share, as the case may be. Anything in this Section (f) to the contrary notwithstanding, the Company shall be entitled, but shall not be required, to make such changes in the Exercise Price, in addition to those required by this Section (f), as it shall determine, in its sole discretion, to be advisable in order that any dividend or distribution in shares of Common Stock, or any subdivision, reclassification, or combination of Common Stock, hereafter made by the Company shall not result in any federal income tax liability to the holders of Common Stock or securities convertible into Common Stock (including the Warrants).

(8) If, at any time, as a result of an adjustment made pursuant to Subsection (1) above, the Holder of this Warrant, upon exercise, shall become entitled to receive any shares of the Company other than Common Stock, then thereafter the number of such other shares so receivable upon exercise of this Warrant shall be subject to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to the Common Stock contained in Subsections (1) to (7) above.

(9) Irrespective of any adjustments in the Exercise Price or the number or kind of shares purchasable upon exercise of this Warrant, Warrant certificates theretofore or thereafter issued upon exchange, transfer, assignment, loss of certificate, or upon exercise in part may continue to express the same price and number and kind of shares as were stated in the Warrant certificates when the same were issued.

(g) OFFICER'S CERTIFICATE. Whenever the Exercise Price shall be adjusted as required by the provisions of the foregoing Section, the Company forthwith shall file in the custody of its Secretary or an Assistant Secretary at its principal office and with the stock transfer agent responsible for this Warrant, if any, an officer's certificate showing the adjusted Exercise Price determined as herein provided, setting forth in reasonable detail the facts requiring such adjustment, including a statement of the number of additional shares of Common Stock, if any, and such other facts as shall be necessary to show the reason for and the manner of computing such adjustment. Each such officer's certificate shall be made available at all reasonable times for inspection by the Holder and, forthwith after each such adjustment, the Company shall mail a copy of such certificate to the Holder by certified mail. In the event of a failure by the Company to deliver an officer's certificate within thirty (30) days of the occurrence of an event requiring an adjustment under the provisions of Section (f) hereof, the Termination Date shall be extended by the length of time equal to the time between the thirtieth day after the adjustment event and the date the officer's certificate is delivered.

(h) NOTICES TO WARRANT HOLDERS. So long as this Warrant shall be outstanding, (i) if the Company shall pay any dividend or make any distribution upon the Common Stock, (ii) if the Company shall offer to all of the holders of Common Stock for subscription or purchase by them any share of any class or any other rights, or (iii) if any capital reorganization of the Company, reclassification of the capital stock of the Company, consolidation or merger of the Company with or into another corporation, sale, lease, or transfer of all or substantially all of the property and assets of the Company to another corporation, or voluntary or involuntary dissolution, liquidation, or winding up of the Company shall be effected, then in any such case, the Company shall cause to be mailed by certified mail to the Holder, at least ten days prior to the date specified in (x) or (y) below, as the case may be, a notice containing a brief description of the proposed action and stating the date on which (x) a record is to be taken for the purpose of such dividend, distribution, or rights, or (y) such reorganization, reclassification, consolidation, merger, sale, lease, transfer, dissolution, liquidation, or winding up is to take place and the date, if any is to be fixed, as of which the holders of Common Stock or other securities shall receive cash or other property deliverable upon such reorganization, reclassification, consolidation, merger, sale, lease, transfer, dissolution, liquidation, or winding up.

(i) RECLASSIFICATION, REORGANIZATION OR MERGER. In case of any reclassification, capital reorganization, or other change of outstanding shares of Common Stock, or in case of any consolidation or merger of the Company with or into another corporation (other than a merger in which the Company is the continuing corporation and which does not result in any reclassification, capital reorganization, or other change of outstanding shares of Common Stock of the class issuable upon exercise of this Warrant) or in case of any sale, lease, or conveyance to another corporation of all or substantially all of the business and assets of the Company, the Company, as a condition precedent to such transaction, shall cause effective provisions to be made so that the Holder shall have the right thereafter by exercising this Warrant at any time prior to the expiration of this Warrant, to purchase the kind and amount of shares of stock and other securities and property receivable upon such reclassification, capital reorganization or other change, consolidation, merger, sale, or conveyance by a holder of the number of shares of Common Stock which might have been purchased upon exercise of this Warrant immediately prior to such reclassification, capital reorganization or other change, consolidation, merger, sale, lease, or conveyance. Any such provision shall include provision for adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Warrant. The foregoing provisions of this Section (i) shall similarly apply to successive reclassifications, capital reorganizations or other changes of shares of Common Stock and to successive consolidations, mergers, sales, leases, or conveyances. If, in connection with any such reclassification, capital reorganization or other change, consolidation, merger, sale, lease, or conveyance, additional shares of Common Stock shall be issued in exchange, conversion, substitution or payment, in whole or in part, for a security of the Company other than Common Stock, then any such issue shall be treated as an issue of Common Stock covered by the provisions of Subsection (1) of Section (f) hereof.

(j) REGISTRATION UNDER THE SECURITIES ACT OF 1933.

(1) If the Holder is not entitled to resell the Warrant Shares under Rule 144 of the Act, then, within twelve (12) months of the exercise of this Warrant, the Company shall file at its own expense a registration statement on Form S-3 if available for use by the Company (the "Registration Statement"), covering the resale of the Warrant Shares by the Holder thereof, and shall use its best efforts to cause the Registration Statement to become effective and to keep the Registration Statement effective until such time that the Warrant Shares have been sold or the Holder is entitled to sell the Warrant Shares under Rule 144. The Warrant Shares also shall be registered under such state securities laws as the Holder may reasonably request. The Company promptly shall give the Holders written notification of the effectiveness of the Registration Statement under the Act, and, when determined, each state where registered.

(2) Notwithstanding the above, the Company's obligation to file the Registration Statement, and/or to keep the Registration continuously effective shall be suspended during any period that there exists any material, non-public information relating to the Company. Holder recognizes that the occurrence of certain corporate developments, including significant acquisitions, may result in the failure of the Registration Statement to contain all information required in accordance with applicable law until an amendment or supplement is filed and made available to the Holder. Holder recognizes that in such event, sales under the Registration Statement will be suspended until the Company files the necessary amendments or supplements thereto. The Company agrees to use its best efforts to prepare and file with the Securities and Exchange Commission, such amendments and supplements to the Registration Statement, as well as the prospectus used in connection therewith, as may be necessary to keep the Registration Statement effective until such time as all of the Warrant Shares covered by the Registration Statement are sold or the Holder is entitled to sell such Warrant Shares under Rule 144. In connection therewith, the Company shall supply prospectuses and such other documents as the Holder may reasonably request in order to facilitate the sale or other disposition of such Warrant Shares.

(3) If at any time the Company shall determine to register under the Act any of its capital stock (other than a registration pursuant to Section (j) (1), a registration relating solely to the sale of securities to participants in a Company employee benefits plan, a registration on any form which does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Warrant Shares or a registration in which the offer and sale of the only Common Stock being registered is Common Stock issuable upon conversion of debt securities which are also being registered), it shall send to the Holder written notice of such determination and, if within fifteen (15) days after receipt of such notice, the Holder shall so request in writing, the Company shall use its best efforts to include in such registration statement all or any part of the Warrant Shares that the Holder requests to be registered. If the total amount of shares requested by the Holder to be included in such offering exceeds the amount of securities that the managing underwriter determines in its sole discretion is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including the Warrant Shares, which the managing underwriter determines in its sole discretion will not jeopardize the success of the offering (the securities so included to be allocated first, to the Company, and second, to the Holder). The number of shares requested to be included by the Holder shall not be reduced below 10% of the total number of securities to be provided in the registration.

(4) The Company will make timely filings of all required reports in accordance with requirements of the Securities Exchange Act of 1934, as amended.

(5) In the case of a registration under this Section (j), the Company shall bear all costs and expenses of such registration, including, but not limited to, filing fees, "blue sky" fees and expenses, and all NASD, stock exchange listing and qualification fees; provided, however, that the Company shall have no obligation to pay or otherwise bear (i) any portion of the underwriter's commissions or discounts attributable to the Warrant Shares being offered and sold by the Holder, (ii) any stock transfer taxes, (iii) any fees of counsel for the Holder, or (iv) any of such expenses if the payment of such expenses by the Company is prohibited by the laws of a state in which such offering is qualified and only to the extent so prohibited; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun if the registration request is subsequently withdrawn at the request of the Holder.

(6) The Company shall indemnify and hold harmless the Holder of the Warrant Shares covered by the Registration Statement, each underwriter (within the meaning of the Act) of the Warrant Shares, and each person, if any, who controls (within the meaning of the Act) the Holder and/or any such underwriter, from, against, for and in respect of any and all losses, claims, damages, liabilities, expenses (including reasonable attorneys fees), and costs (collectively, the "Liabilities") to which the Holder, underwriter, or controlling person may become subject, under the Act or otherwise, insofar as such Liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement of any material fact contained in the Registration Statement, any preliminary prospectus or final prospectus constituting a part thereof, or any amendment or supplement thereto, or arise out of or are based upon the omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading. The Company shall reimburse the Holder, underwriter, and controlling person for any and all expenses (including reasonable attorneys' fees) reasonably incurred by each such party in connection with investigating or defending any such Liability or action; provided, however, the Company shall not be liable in any such case to the extent that any such Liability arises out of or is based upon an untrue statement or omission in such Registration Statement, preliminary prospectus, final prospectus, amendment or supplement, made in reliance upon and in conformity with information furnished by any Holder, underwriter, or controlling person.

(7) The Holder shall indemnify and hold harmless the Company, each of its directors and officers who have signed such Registration Statement as well as such amendments and supplements thereto, and each person, if any, who controls the Company (within the meaning of the Act), from, against, for and in respect to any and all Liabilities to which the Company or any such director, officer, or controlling person may become subject, under the Act or otherwise, insofar as such Liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement of any material fact contained in such Registration Statement, preliminary prospectus, final prospectus, amendment or supplement, or arise out of or are based upon the omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading. The Holder shall reimburse the Company or any such director, officer, or controlling person for any legal or other expenses reasonably incurred by them or any of them in connection with investigating or defending any such Liability or action; provided, however, in each case, the Holder shall be liable only to the extent that such untrue statement or omission in such Registration Statement, preliminary prospectus, final prospectus, amendment or supplement, was made in reliance upon and in conformity with information furnished by the Holder.

(k) AMENDMENT; WAIVER OF PROVISIONS. This Warrant may not be amended and compliance with any provision hereof may not be waived, except pursuant to a written instrument signed by the parties hereto.

Dated: As of November 29, 2010

**BIOLIFE SOLUTIONS, INC.**

By: /S/ MICHAEL RICE  
Mike Rice, President

PURCHASE FORM

Dated \_\_\_\_\_, \_\_\_\_

The undersigned hereby irrevocably elects to exercise the within Warrant to the extent of purchasing \_\_\_\_\_ shares of Common Stock and hereby makes payment of \_\_\_\_\_ in payment of the actual exercise price thereof. Please issue and deliver all such shares to the undersigned at the address stated below.

Name:  
(Please typewrite or print in block letters)

Address:

Signature:

\_\_\_\_\_  
ASSIGNMENT FORM

FOR VALUE RECEIVED, \_\_\_\_\_ hereby sells, assigns, and transfers unto

Name \_\_\_\_\_  
(Please typewrite or print in block letters)

Address \_\_\_\_\_

the right to purchase Common Stock represented by this Warrant to the extent of \_\_\_\_\_ shares as to which such right is exercisable and does hereby irrevocably constitute and appoint \_\_\_\_\_ attorney, to transfer the same on the books of the Company with full power of substitution in the premises.

Date \_\_\_\_\_, \_\_\_\_

Signature \_\_\_\_\_

NET ISSUE ELECTION NOTICE

To: BioLife Solutions, Inc.  
3303 Monte Villa Parkway  
Suite 310  
Bothell, WA 98021

The undersigned hereby elects under Section (a)(2) to surrender the right to purchase \_\_\_\_\_ Warrant Shares pursuant to this Warrant. The certificate(s) for the Warrant Shares issuable upon such net issue election shall be issued in the name of the undersigned or as otherwise indicated below.

\_\_\_\_\_  
Name (please print)

\_\_\_\_\_  
Address

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name for Registration (if different from name above)

Dated: \_\_\_\_\_

## CERTIFICATION

I, Michael Rice, certify that:

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

Dated: March 28, 2011

/S/ MICHAEL RICE  
Michael Rice  
Chief Executive Officer and  
Chief Financial Officer

## CERTIFICATION OF PERIODIC REPORT

I, Michael Rice, Chief Executive Officer and Chief Financial Officer of BioLife Solutions, Inc. (the "Company"), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

1. the Annual Report on Form 10-K of the Company for the year ended December 31, 2010 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 28, 2011

/S/ MICHAEL RICE

Michael Rice  
Chief Executive Officer and  
Chief Financial Officer