BIOLIFE SOLUTIONS INC
Form S-8
January 05, 2018

As filed with the Securities and Exchange Commission on January 5, 2018

Registration No. 333-

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

BioLife Solutions, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**94-3076866**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)

3303 Monte Villa Parkway, Suite 310

Bothell, Washington 98021

(Address of Principal Executive Offices) (Zip Code)

BioLife Solutions, Inc. Second Amended and Restated 2013 Performance Incentive Plan

BioLife Solutions, Inc. 1998 Stock Option Plan, as amended

BioLife Solutions, Inc. Form of Non-Plan Stock Option Agreement

(Full Title of the Plan)

Michael Rice

President and Chief Executive Officer

3303 Monte Villa Parkway, Suite 310

Bothell, Washington 98021

(Name and Address of Agent for Service)

(425) 402-1400

(Telephone Number, including area code, of agent for service)

Copies to:

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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 definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer o
Non-accelerated filer o	Smaller reporting company þ
(Do not check if a smaller reporting company)	Emerging growth company o

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. o

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered (1)	Proposed maximum offering price per unit	Proposed maximum aggregate offering price	Amount of registration fee
Shares of common stock issuable pursuant to the BioLife Solutions, Inc. Second Amended & Restated 2013 Performance Incentive Plan (2)	1,041,072	$ 5.96	$6,204,789.12	$ 772.50
Shares of common stock issuable pursuant to the BioLife Solutions, Inc. Second Amended & Restated 2013 Performance Incentive Plan (3)	3,058,928	N/A	N/A	N/A
Shares of common stock issuable pursuant to Non-Plan Stock Option Agreements (4)	665,105	N/A	N/A	N/A
Shares of common stock issuable pursuant to the BioLife Solutions, Inc. 1998 Stock Option Plan, as amended (5)	7,142	N/A	N/A	N/A

(1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the “Securities Act”), this Registration Statement on Form S-8 shall also cover any additional shares of the Registrant's common stock that become issuable in respect of the securities identified in the above table by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the Registrant's receipt of consideration which results in an increase in the number of the outstanding shares of the Registrant's common stock. In addition, this Registration Statement covers the resale by certain selling stockholders named in the prospectus included in and filed with this Registration Statement of certain of the shares of Registrant’s common stock subject to this Registration Statement, for which no additional registration fee is required pursuant to Rule 457(h)(3).

(2) Shares of common stock issuable pursuant to the BioLife Solutions, Inc. Second Amended & Restated 2013 Performance Incentive Plan (the “Plan”). The proposed maximum offering price per share and registration fee were calculated in accordance with Rule 457(c) based on the average of the high and low prices reported in the consolidated reporting system within 5 business days prior to the date of filing the Registration Statement.

(3) Shares of common stock issuable pursuant to the Plan have been previously registered on a registration statement on Form S-8 (File No. 333-205101). As described in more detail in the Explanatory Note, pursuant to Rule 429 under the Securities Act this Registration Statement is deemed to be a post-effective amendment to the Registrant’s registration statement on Form S-8 (File No. 333-205101).

(4)

Shares of common stock issuable pursuant to the BioLife Solutions, Inc. Form of Non-Plan Stock Option Agreement have been previously registered on a registration statement on Form S-8 (File No. 333-189551). As described in more detail in the Explanatory Note, pursuant to Rule 429 under the Securities Act this Registration Statement is deemed to be a post-effective amendment to the Registrant's registration statement on Form S-8 (File No. 333-189551).

(5) Shares of common stock issuable pursuant to the BioLife Solutions, Inc. 1998 Stock Option Plan, as amended, have been previously registered on a registration statement on Form S-8 (File No. 333-189551). As described in more detail in the Explanatory Note, pursuant to Rule 429 under the Securities Act this Registration Statement is deemed to be a post-effective amendment to the Registrant's registration statement on Form S-8 (File No. 333-189551).

Explanatory Note

This Registration Statement on Form S-8 of BioLife Solutions, Inc. ("we," "us," "our" or the "Company") has been prepared in accordance with the requirements of Form S-8 under the Securities Act of 1933, as amended (the "Securities Act"), to (i) register 1,041,072 shares of our common stock, par value $0.001 per share, to be issued pursuant to the BioLife Solutions, Inc. Second Amended & Restated 2013 Performance Incentive Plan, as described in more detail herein, including registering for resale pursuant to a reoffer prospectus certain securities to be issued to our officers and directors upon exercise of outstanding options or vesting of outstanding restricted stock units as described below, and (ii) serve as a post-effective amendment, pursuant to Rule 429 under the Securities Act, to our Registration Statement on Form S-8 (File No. 333-205101) filed with the Securities and Exchange Commission on June 19, 2015 and our Registration Statement on Form S-8 (File No. 333-189551) filed with the Securities and Exchange Commission on June 24, 2013 for the purpose of adding a reoffer prospectus to each such registration statement as described below.

This Registration Statement includes a reoffer prospectus prepared in accordance with the requirements of Part I of Form S-3 (in accordance with the General Instruction C to Form S-8). The reoffer prospectus covers reoffers and resales of shares of our common stock that have been or will be acquired by certain of our officers and directors (collectively, the "selling stockholders") which may be deemed to be "control securities" and/or "restricted securities" (as such terms are defined in General Instruction C to Form S-8) of the Company. The reoffer prospectus relates to the resale of up to 4,772,247 shares of common stock that have been or may be issued to the selling stockholders pursuant to our stock option plans or our non-plan stock option agreements.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.*

Item 2. Registrant Information and Employee Plan Annual Information.*

* Pursuant to the Note to Part I on Form S-8, the documents containing the information specified in Part I of this Registration Statement will be sent or given to plan participants as specified by Rule 428(b)(1) of the Securities Act of 1934, as amended, or the Securities Act. Such documents are not required to be filed, and are not filed, with the United States Securities and Exchange Commission either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 of the Securities Act. These documents and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II of this Form S-8, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

Reoffer Prospectus

Up to 4,772,247 Shares of Common Stock under the BioLife Solutions, Inc. Second Amended & Restated 2013 Performance Incentive Plan, the BioLife Solutions, Inc. 1998 Stock Option Plan, as amended, and various Non-Plan Stock Option Agreements

This reoffer prospectus is being used in connection with the offering from time to time by certain selling stockholders of BioLife Solutions, Inc., which we refer to herein as "we," "us," "our" or the "Company," or their successors in interest of shares of our common stock, par value $0.001 per share, which we refer to as the common stock, issued or to be issued, or which may be acquired upon the exercise of stock options or vesting of restricted stock units issued or to be issued, pursuant to our BioLife Solutions, Inc. Second Amended & Restated 2013 Performance Incentive Plan, which we refer to herein as the 2013 Plan, and BioLife Solutions, Inc. 1998 Stock Option Plan, as amended, which we refer to herein as the 1998 Plan, as well as shares of our common stock which may be acquired upon the exercise of stock options issued pursuant to Non-Plan Stock Option Agreements, which we collectively refer to as the Option Agreements. The 2013 Plan, 1998 Plan and the Option Agreements are and were intended to provide incentives to attract, retain, and motivate highly competent persons such as officers, employees, directors, and consultants to our Company by providing them opportunities to acquire shares of our common stock. Additionally, the 2013 Plan, 1998 Plan and the Option Agreements are and were intended to assist in further aligning the interests of our officers, employees, directors and consultants to those of the Company's other stockholders.

The common stock may be sold from time to time by the selling stockholders or by their pledgees, donees, transferees or other successors in interest. Such sales may be made in the market on which our common stock is currently listed or otherwise at prices and at terms then prevailing or at prices related to the then current market price, or in negotiated transactions. The common stock may be sold by one or more of the following: (a) block trades in which the broker or dealer so engaged will attempt to sell the shares as agent but may position and resell portions of the block as principal to facilitate the transaction; (b) purchases by a broker or dealer as principal and resale by such broker or dealer for its account pursuant to this prospectus; (c) an exchange distribution in accordance with the rules of such exchange; and (d) ordinary brokerage transactions and transactions in which the broker solicits purchases. In effecting sales, brokers or dealers engaged by the selling stockholders may arrange for other brokers or dealers to participate. Brokers or dealers will receive commissions or discounts from selling stockholders in amounts to be negotiated immediately prior to the sale. Such brokers or dealers and any other participating brokers or dealers may be deemed to be "underwriters" within the meaning of the Securities Act, in connection with such sales. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this prospectus. We will not receive any of the proceeds from the sale of these shares, although we have paid the expenses of preparing this prospectus and the related Registration Statement. If any additional options are issued to affiliates under the 2013 Plan or otherwise, we may file with the Securities and Exchange Commission an update to this prospectus naming such person as a selling shareholder and indicating the number of shares such person is offering pursuant to the prospectus. See "Selling Stockholders" on page 12 of this prospectus.

Our common stock is listed on The Nasdaq Capital Market, or Nasdaq, under the ticker symbol “BLFS.” On January 3, 2018, the closing price of our common stock was $5.85.

Our principal executive offices are located at 3303 Monte Villa Parkway, Suite 310 Bothell, Washington 98021 and our telephone number is (425) 402-1400.

Investing in our common stock involves a high degree of risk. See the section entitled "Risk Factors" beginning on page 3 and in the documents incorporated by reference herein before you decide to buy our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is January 5, 2018

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You should rely only upon the information contained in this prospectus and the Registration Statement of which this reoffer prospectus is a part. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume the information appearing in this reoffer prospectus is accurate only as of the date on the front cover of this reoffer prospectus. Our business, financial condition, results of operations and prospects may have changed since that date. This reoffer prospectus is based on information provided by us and other sources that we believe are reliable. We have summarized certain documents and other information in a manner we believe to be accurate, but we refer you to the actual documents for a more complete understanding of what we discuss in this reoffer prospectus. In making an investment decision, you must rely on your own examination of our business and the terms of the offering, including the merits and risks involved.

We obtained statistical data, market data and other industry data and forecasts used throughout, or incorporated by reference in, this reoffer prospectus from market research, publicly available information and industry publications. Industry publications generally state that they obtain their information from sources that they believe to be reliable, but they do not guarantee the accuracy and completeness of the information. Similarly, while we believe that the statistical data, industry data and forecasts and market research are reliable, we have not independently verified the data, and we do not make any representation as to the accuracy of the information. We have not sought the consent of the sources to refer to their reports appearing or incorporated by reference in this reoffer prospectus.

This reoffer prospectus contains, or incorporates by reference, trademarks, tradenames, service marks and service names of BioLife Solutions, Inc. and other companies.

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CAUTIONARY NOTE ON FORWARD LOOKING STATEMENTS

This reoffer prospectus contains a number of "forward-looking statements." Specifically, all statements other than statements of historical facts included in this reoffer prospectus regarding our financial position, business strategy and plans and objectives of management for future operations are forward-looking statements. These forward-looking statements are based on the beliefs of management at the time these statements were made, as well as assumptions made by and information currently available to management. When used in this reoffer prospectus and the documents incorporated by reference herein, the words "anticipate," "believe," "estimate," "expect," "may," "will," "continue" and "intend words or phrases of similar import, as they relate to our financial position, business strategy and plans, or objectives of management, are intended to identify forward-looking statements. These statements reflect our current view with respect to future events and are subject to risks, uncertainties and assumptions related to various factors.

You should understand that the following important factors, in addition to those discussed in our periodic reports to be filed with the SEC under the Securities Exchange Act of 1934, as amended, or the Exchange Act, could affect our future results and could cause those results to differ materially from those expressed in such forward-looking statements. Examples of these forward-looking statements include, but are not limited to:

- anticipated product developments, regulatory filings and related requirements;
- timing and amount of future contractual payments, product revenue, gross margin and operating expenses;
- market acceptance of our products and the estimated potential size of these markets; and
- projections regarding liquidity, capital requirements and the terms of any financing agreements.

Although we believe that our expectations (including those on which our forward-looking statements are based) are reasonable, we cannot assure you that those expectations will prove to be correct. Should any one or more of these risks or uncertainties materialize, or should any underlying assumptions prove incorrect, actual results may vary materially from those described in our forward-looking statements as anticipated, believed, estimated, expected or intended.

Except for our ongoing obligations to disclose material information under the federal securities laws, we undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or any other reason. All subsequent forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to herein. In light of these risks, uncertainties and assumptions, the forward-looking events discussed in this reoffer prospectus and the documents incorporated by reference herein might not occur.

PROSPECTUS SUMMARY

The following summary highlights selected information contained or incorporated by reference in this reoffer prospectus. This summary does not contain all of the information you should consider before investing in the securities. Before making an investment decision, you should read the entire reoffer prospectus and any supplement hereto carefully, including the risk factors section as well as the financial statements and the notes to the financial statements incorporated herein by reference.

Overview

We develop, manufacture and market a portfolio of biopreservation tools for cells, tissues, and organs, including proprietary clinical grade cell and tissue hypothermic storage and cryopreservation freeze media.

Our products are used in basic and applied research on, and commercialization of, new biologic based therapies by maintaining the health and function of biologic source material and finished products during manufacturing, distribution, and patient delivery.

Our product offerings include:

- Patented hypothermic storage and cryopreservation freeze media products for cells, tissues, and organs
- Generic blood stem cell freezing and cell thawing media products
- Custom product formulation and custom packaging services
- Contract aseptic manufacturing formulation, fill, and finish services of liquid media products

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

Our patented biopreservation media products are formulated to reduce preservation-induced, delayed-onset cell damage and death. Our platform enabling technology provides our customers significant shelf life extension of biologic source material and final cell products, and also greatly improves post-preservation cell and tissue viability and function. Our products have been incorporated in over 250 regenerative medicine applications, including chimeric antigen receptor (CAR) and other T cell receptor (TCR) types.

Principal Offices

Our principal executive offices are located at 3303 Monte Villa Parkway, Suite 310, Bothell, Washington 98021 and the telephone number is (425) 402-1400. Information about us is available on our website http://www.biolifesolutions.com. The information contained on our website or that can be accessed through our website does not constitute part of this prospectus and is not incorporated in any manner into this prospectus.

The Offering

Outstanding Common Stock	As of January 3, 2018, there were 14,021,422 shares of common stock issued and outstanding.
Common Stock Offered	Up to 4,772,247 shares of common stock for sale by the selling stockholders for their own account.
Selling Stockholders	The selling stockholders are set forth in the Section entitled "Selling Stockholders" of this reoffer prospectus on page 12.
Proceeds	We will not receive any proceeds from the sale of our common stock by the selling stockholders. We would, however, receive proceeds upon the exercise of the stock options by those who receive or received options under the 2013 Plan or 1998 Plan or received options pursuant to the Option Agreements and exercise such options for cash. Any cash proceeds will be used by us for general corporate purposes.
Risk Factors	The securities offered hereby involve a high degree of risk. See “Risk Factors.”
Nasdaq Symbol	BLFS

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the following risk factors, together with all of the other information included in this reoffer prospectus. Our business, financial condition or results of operations could be affected materially and adversely by any of the risks discussed below.

Risks Related to Our Business

The majority of our net sales come from a relatively small number of customers and a limited number of market sectors; if we lose any of these customers or if there are problems in those market sectors, our net sales and operating results could decline significantly.

In the three and nine months ended September 30, 2017, we derived approximately 22% of our product revenue from two customers and 10% of our product revenue from one customer, respectively. In the three and nine months ended September 30, 2016, we derived approximately 25% of our product revenue from two customers and 12% of our product revenue from one customer, respectively. In 2016 and 2015, we derived approximately 12% and 10%, respectively, of our revenue from our relationship with one distributor of our products. No other customer accounted for more than 10% of revenue in the three and nine months ended September 30, 2017 and 2016, and the years ended December 31, 2016 or 2015. Our principal customers may vary from period to period, and our principal customers may not continue to purchase products from us at current levels, or at all. Significant reductions in net sales to any of these customers or our failure to make appropriate choices to the customers we serve, could seriously harm our business. In addition, we focus our sales to customers in only a few market sectors. Each of these sectors is subject to macroeconomic conditions as well as trends and conditions that are sector specific. Shifts in the performance of a sector served by us, as well as the economic, business and/or regulatory conditions that affect the sector, or our failure to choose appropriate sectors can particularly impact us. Any weakness in the market sectors in which our customers are concentrated could affect our business and results of operations.

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

We have incurred annual consolidated operating losses since inception, and may continue to incur operating losses. For the three and nine months ended September 30, 2017 we had consolidated net losses attributable to us of $0.3 million and $2.0 million, respectively. For the fiscal years ended December 31, 2016 and December 31, 2015, we had consolidated net losses attributable to us of $6.9 million and $4.2 million, respectively. As of September 30, 2017, our consolidated accumulated deficit was approximately $73.3 million. We may not be able to successfully achieve or sustain profitability. Successful transition to profitable operations is dependent upon achieving a level of revenues

adequate to support our cost structure.

We may need additional capital to reach and maintain a sustainable level of positive cash flow and if we raise such additional capital through the issuance of equity or convertible debt securities, your ownership will be diluted, and equity securities issued may have rights, preferences and privileges superior to the shares of common stock.

If we are unable to achieve profitability sufficient to permit us to fund our operations and other planned actions, we may be required to raise additional capital. There can be no assurance that such capital would be available on favorable terms, or at all. If we raise additional capital through the issuance of equity or convertible debt securities, the percentage ownership held by existing stockholders may be reduced, and the market price of our common stock could fall due to an increased number of shares available for sale in the market. Further, our board has the authority to establish the designation of additional shares of preferred stock that may be convertible into common stock without any action by our stockholders, and to fix the rights, preferences, privileges and restrictions, including voting rights, of such shares. Any such additional shares of preferred stock may have rights, preferences and privileges senior to those of outstanding common stock, and the issuance and conversion of any such preferred stock would further dilute the percentage ownership of our stockholders. Debt financing, if available, may involve restrictive covenants, which may limit our operating flexibility with respect to certain business matters. If we are unable to secure additional capital as circumstances require, we may not be able to fund our planned activities or continue our operations.

There is uncertainty surrounding our ability to successfully commercialize our HypoThermosol® FRS and CryoStor® biopreservation media products.

Our growth depends on our continued ability to successfully develop, commercialize and market our HypoThermosol® FRS, CryoStor®, and BloodStor® biopreservation media products. Even in markets that do not require us to obtain regulatory approvals, our products will not be used unless they present an attractive alternative to competitive products and the benefits and cost savings achieved through their use outweigh the cost of our products. If we are unable to develop and sustain a market for our products, this will have a material adverse effect on our results of operations and our ability to continue and grow our business.

The success of our HypoThermosol® FRS and CryoStor® biopreservation media products is dependent, in part, on successful customer regulatory approvals and commercial success of new regenerative medicine products and therapies.

Our HypoThermosol® FRS and CryoStor® biopreservation media products are marketed to biotechnology companies and research institutions engaged in research and development of cell, gene and tissue engineering therapies. The end-products or therapies developed by these biotechnology companies and research institutions are subject to substantial regulatory oversight by the United States Food and Drug Administration, or FDA, and other regulatory bodies, and many of these therapies are years away from commercialization. Thus demand, if any, for HypoThermosol® FRS and CryoStor® is expected to be limited for several years. Failure of the end-products that use our biopreservation media products to receive regulatory approvals and be successfully commercialized will have an adverse effect in the demand for our products.

We face significant competition.

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

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 could increase costs to us and/or have a material adverse effect on manufacturing schedules, products performance and market acceptance. In addition, an uncorrected defect or supplier's variation in a component or raw material, either unknown to us or incompatible with our manufacturing process, could harm our ability to manufacture products. We might not be able to find a sufficient alternative supplier in a reasonable time period, or on commercially reasonable terms, if at all. If we fail to obtain a supplier for the components of our products, our operations could be disrupted.

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 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 were to be successfully sued related to our products, operations or other activities, we could face substantial liabilities that may exceed our resources.

We may be held liable if any of our products or operations cause injury or death. We are subject to certain litigation described in our Exchange Act reports, and may also face other types of litigation, including those related to alleged breaches of contract or applicable laws or of our duties to third parties. We currently maintain commercial general and umbrella liability policies and a product liability insurance policy. When necessary for our products, we intend to obtain additional product liability insurance. Insurance coverage may be prohibitively expensive, may not fully cover potential liabilities or may not be available in the future. Inability to obtain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or inhibit the commercialization of our products. If we were to be sued for any injury caused by or associated with our products or operations or in connection with other matters, or if our existing litigation proceeds, the litigation could consume substantial time and attention of our management, and the resulting liability could have a material adverse effect on us.

Regulatory or other difficulties in manufacturing could have an adverse effect upon our expenses and our product revenues.

We currently manufacture all of our biopreservation media products. The manufacture of these products is difficult, complex and highly regulated. To support our current and prospective clinical customers, we intend to comply with cGMP in the manufacture of our products. Our ability to adequately and in a timely manner manufacture and supply our biopreservation media products is dependent on the uninterrupted and efficient operation of our facilities and those of third-parties producing supplies upon which we rely in our manufacturing. The manufacture of our products may be impacted by:

- availability or contamination of raw materials and components used in the manufacturing process, particularly those for which we have no other source or supplier;
- the ongoing capacity of our facilities;
- our ability to comply with regulatory requirements, including our ability to comply with cGMP;
- inclement weather and natural disasters;
- changes in forecasts of future demand for product components;
- potential facility contamination by microorganisms or viruses;
- updating of manufacturing specifications; and
- product quality success rates and yields.

If efficient manufacture and supply of our products is interrupted, we may experience delayed shipments or supply constraints. If we are at any time unable to provide an uninterrupted supply of our products to customers, our customers may be unable to supply their end-products incorporating our products to their patients and other

customers, which could materially and adversely affect our product sales and results of operations.

If we become subject to additional regulatory requirements, the manufacture and sale of our products may be delayed or prevented, or we may become subject to increased expenses.

None of our products are subject to FDA or other regulatory approvals. In particular, we are not required to sponsor formal prospective, controlled clinical-trials in order to establish safety and efficacy. However, 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. Any such requirements could delay or prevent the sale of our products, or may subject us to additional expenses.

We may be adversely affected if we violate privacy and security regulations or suffer a data breach.

Federal and state laws protect the confidentiality of certain patient health information, including patient records, and restrict the unauthorized use and disclosure of such information. In particular, the Health Insurance Portability and Accountability Act of 1996, or HIPAA, and its implementing privacy, security, and breach notification regulations, collectively, HIPAA Standards, govern the use and disclosure of protected health information by “covered entities,” which are healthcare providers that submit electronic claims, health plans and healthcare clearinghouses, as well as their "business associates" and their subcontractors. Our employee health benefit plans are considered “covered entities” and, therefore, are subject to the HIPAA Standards.

We may be adversely affected if our internal control over financial reporting fails or is circumvented.

We regularly review and update our internal controls, disclosure controls and procedures, and corporate governance policies. We are required under the Sarbanes-Oxley Act of 2002 to report annually on our internal control over financial reporting, but as a smaller reporting company we are exempt from the requirement to have our independent accountants attest to our internal control over financial reporting. If it were to be determined that our internal control over financial reporting is not effective, such shortcoming could have an adverse effect on our business and financial results and the price of our common stock could be negatively affected. This reporting requirement could also make it more difficult or more costly for us to obtain certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. Any system of internal controls, however well designed and operated, is based in part on certain assumptions and can provide only reasonable, not absolute, assurances that the objectives of the system are met. Any failure or circumvention of the controls and procedures or failure to comply with regulation concerning control and procedures could have a material effect on our business, results of operation and financial condition. Any of these events could result in an adverse reaction in the financial marketplace due to a loss of investor confidence in the reliability of our financial statements, which ultimately could negatively affect the market price of our shares, increase the volatility of our stock price and adversely affect our ability to raise additional funding. The effect of these events could also make it more difficult for us to attract and retain qualified persons to serve on our board and our board committees and as executive officers.

Risks Related to Our Intellectual Property

Expiration of our patents may subject us to increased competition and reduce or eliminate our opportunity to generate product revenue.

The patents for our products have varying expiration dates and, when these patents expire, we may be subject to increased competition and we may not be able to recover our development costs. In some of the larger economic territories, such as the United States and Europe, patent term extension/restoration may be available. We cannot, however, be certain that an extension will be granted or, if granted, what the applicable time period or the scope of patent protection afforded during any extended period will be. If we are unable to obtain patent term extension/restoration or some other exclusivity, we could be subject to increased competition and our opportunity to establish or maintain product revenue could be substantially reduced or eliminated. Furthermore, we may not have sufficient time to recover our development costs prior to the expiration of our U.S. and non-U.S. patents.

US Patent 6,045,990, which provides patent coverage relating to HypoThermosol® FRS, will expire in April 2019, and its foreign patent counterparts will expire in July 2019, reducing the barrier to entry for competition for this product, which may materially affect the pricing of HypoThermosol® FRS and our ability to retain market share. We

may file extensions for this patent. We hold various trade secrets and other confidential know-how related to the manufacturing and testing of our products which limit our exposure upon the expiration of US patent 6,045,990.

Our proprietary rights may not adequately protect our technologies and products.

Our commercial success will depend on our ability to obtain patents and/or regulatory exclusivity and maintain adequate protection for our technologies and products in the United States and other countries. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary technologies and products are covered by valid and enforceable patents or are effectively maintained as trade secrets.

We intend to apply for additional patents covering both our technologies and products, as we deem appropriate. We may, however, fail to apply for patents on important technologies or products in a timely fashion, if at all. Our existing patents and any future patents we obtain may not be sufficiently broad to prevent others from practicing our technologies or from developing competing products and technologies. In addition, the patent positions of life science industry companies are highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. As a result, the validity and enforceability of our patents cannot be predicted with certainty. In addition, we cannot guarantee that:

- we were the first to make the inventions covered by each of our issued patents and pending patent applications;
- we were the first to file patent applications for these inventions;
- others will not independently develop similar or alternative technologies or duplicate any of our technologies;
- any of our pending patent applications will result in issued patents;
- any of our patents will be valid or enforceable;
- any patents issued to us will provide us with any competitive advantages, or will not be challenged by third parties; and
- we will develop additional proprietary technologies that are patentable, or the patents of others will not have an adverse effect on our business.

The actual protection afforded by a patent varies on a product-by-product basis, from country to country and depends on many factors, including the type of patent, the scope of its coverage, the availability of regulatory related extensions, the availability of legal remedies in a particular country and the validity and enforceability of the patents. Our ability to maintain and solidify our proprietary position for our products will depend on our success in obtaining effective claims and enforcing those claims once granted. Our issued patents and those that may be issued in the future, or those licensed to us, may be challenged, invalidated, unenforceable or circumvented, and the rights granted under any issued patents may not provide us with proprietary protection or competitive advantages against competitors with similar products. We also rely on trade secrets to protect some of our technology, especially where it is believed that patent protection is inappropriate or unobtainable. However, trade secrets are difficult to maintain. While we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors or scientific and other advisors may unintentionally or willfully disclose our proprietary information to competitors. Enforcement of claims that a third party has illegally obtained and is using trade secrets is expensive, time consuming and uncertain. In addition, non-U.S. courts are sometimes less willing than U.S. courts to protect trade secrets. If our competitors independently develop equivalent knowledge, methods and know-how, we would not be able to assert our trade secrets against them and our business could be harmed.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting and defending patents on all of our products in every jurisdiction would be prohibitively expensive. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products. These products may compete with our products, and may not be covered by any patent claims or other intellectual property rights.

The laws of some non-U.S. countries do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology, which could make it difficult for us to stop the infringement of our patents. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business.

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 property 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.

We may incur substantial costs as a result of litigation or other proceedings relating to patent and other intellectual property rights and we may be unable to protect our rights to, or use of, our technology.

If we choose to go to court to stop someone else from using the inventions claimed in our patents or our licensed patents, that individual or company has the right to ask the court to rule that these patents are invalid and/or should not be enforced against that third party. These lawsuits are expensive and would consume time and other resources even if we were successful in stopping the infringement of these patents. In addition, there is a risk that the court will decide that these patents are invalid or unenforceable and that we do not have the right to stop the other party from using the inventions. There is also the risk that, even if the validity or enforceability of these patents is upheld, the court will refuse to stop the other party on the grounds that such other party’s activities do not infringe our rights.

If we wish to use the technology claimed in issued and unexpired patents owned by others, we will need to obtain a license from the owner, enter into litigation to challenge the validity or enforceability of the patents or incur the risk of litigation in the event that the owner asserts that we infringed its patents. The failure to obtain a license to technology or the failure to challenge an issued patent that we may require to discover, develop or commercialize our products may have a material adverse effect on us.

If a third party asserts that we infringed its patents or other proprietary rights, we could face a number of risks that could seriously harm our results of operations, financial condition and competitive position, including:

- patent infringement and other intellectual property claims, which would be costly and time consuming to defend, whether or not the claims have merit, and which could delay a product and divert management's attention from our business;
- substantial damages for past infringement, which we may have to pay if a court determines that our product or technologies infringe a competitor's patent or other proprietary rights;
- a court prohibiting us from selling or licensing our technologies unless the third party licenses its patents or other proprietary rights to us on commercially reasonable terms, which it is not required to do; and
- if a license is available from a third party, we may have to pay substantial royalties or lump-sum payments or grant cross licenses to our patents or other proprietary rights to obtain that license.

The biotechnology industry has produced a proliferation of patents, and it is not always clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. If we are sued for patent infringement, we would need to demonstrate that our products or methods of use either do not infringe the patent claims of the relevant patent, and/or that the patent claims are invalid, and/or that the patent is unenforceable and we may not be able to do this. Proving invalidity, in particular, is difficult since it requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents.

U.S. patent laws as well as the laws of some foreign jurisdictions provide for provisional rights in published patent applications beginning on the date of publication, including the right to obtain reasonable royalties, if a patent subsequently issues and certain other conditions are met.

Because some patent applications in the United States may be maintained in secrecy until the patents are issued, because patent applications in the United States and many foreign jurisdictions are typically not published until 18 months after filing, and because publications in the scientific literature often lag behind actual discoveries, we cannot be certain that others have not filed patent applications for technology covered by our issued patents or our pending applications, or that we were the first to invent the technology.

Patent applications filed by third parties that cover technology similar to ours may have priority over our patent applications and could further require us to obtain rights to issued patents covering such technologies. If another party files a U.S. patent application on an invention similar to ours, we may elect to participate in or be drawn into an interference proceeding declared by the U.S. Patent and Trademark Office to determine priority of invention in the United States. The costs of these proceedings could be substantial, and it is possible that such efforts would be unsuccessful, resulting in a loss of our U.S. patent position with respect to such inventions. Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations. We cannot predict whether third parties will assert these claims against us, or whether those claims will harm our business. If we are forced to defend against these claims, whether they are with or without any merit and whether they are resolved in favor of or against us, we may face costly litigation and diversion of management's attention and resources. As a result of these disputes, we may have to develop costly non-infringing technology, or enter into licensing agreements. These agreements, if necessary, may be unavailable on terms acceptable to us, if at all, which could seriously harm our business or financial condition.

Risks Related to our Common Stock and Other Securities

The market for our common stock is limited and our stock price is volatile.

Our common stock, traded on the NASDAQ Capital Market, 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 numerous factors, including, but not limited to:

- Future sales of our common stock or other fundraising events;
- Sales of our common stock by existing shareholders;

- Changes in our capital structure, including stock splits or reverse stock splits;
- 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; and
- Other factors outside of our control.

A significant percentage of our outstanding common stock is held by two stockholders, and these stockholders therefore have significant influence on us and our corporate actions.

As of January 2, 2018, two of our existing stockholders, Taurus4757 GmbH, or Taurus, and WAVI Holdings AG, or WAVI, beneficially owned, collectively, approximately 65.5% of our outstanding shares. Taurus and WAVI were previously secured lenders to our Company, and the chairman of Taurus, Mr. Girschweiler, is a member of our board. Accordingly, these stockholders have had, and will continue to have, significant influence in determining the outcome of any corporate transaction or other matter submitted to the stockholders for approval, including mergers, consolidations and the sale of all or substantially all of our assets, election of directors and other significant corporate actions. In addition, without the consent of these stockholders, we could be prevented from entering into transactions that could be beneficial to us.

We may be at risk of securities class action litigation.

In the past, securities class action litigation has often been brought against a company following an extraordinary corporate action or a decline in the market price of its securities. This risk is especially relevant for us because our stock price and those of other biotechnology and life sciences companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business. We do maintain insurance, but the coverage may not be sufficient and may not be available in all instances.

Anti-takeover provisions in our charter documents and under Delaware law could make a third-party acquisition of us difficult.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that may discourage unsolicited takeover proposals that stockholders may consider to be in their best interests. These provisions include the ability of our board to designate the terms of and issue new series of preferred stock without stockholder approval and to amend our bylaws without stockholder approval. Further, as a Delaware corporation, we are subject to Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless certain specific requirements are met as set forth in Section 203. Collectively, these provisions could make a third-party acquisition of us difficult or could discourage transactions that otherwise could involve payment of a premium over prevailing market prices for our common stock.

Future sales or the potential for future sales of our securities in the public markets may cause the trading price of our common stock to decline and could impair our ability to raise capital through future equity offerings.

Sales of a substantial number of shares of our common stock or other securities in the public markets, or the perception that these sales may occur, could cause the market price of our common stock or other securities to decline and could materially impair our ability to raise capital through the sale of additional securities. We have a substantial number of warrants exercisable to purchase shares of common stock outstanding. Many of the shares of common stock issuable upon exercise of those warrants will be freely tradable. We have agreed to use our best efforts to keep a registration statement registering the issuance and resale of many such shares effective during the term of the warrants. In addition, we have a significant number of shares of our common stock reserved for issuance pursuant to other outstanding options and rights. If such shares are issued upon exercise of options, warrants or other rights, or if we issue additional securities in a public offering or a private placement, such sales or any resales of such securities could further adversely affect the market price of our common stock. The sale of a large number of shares of our common stock or other securities also might make it more difficult for us to sell equity or equity-related securities in the future at a time and at the prices that we deem appropriate.

We do not anticipate declaring any cash dividends on our common stock.

We have never declared or paid cash dividends on our common stock and do not plan to pay any cash dividends in the near future. Our current policy is to retain all funds and earnings for use in the operation and expansion of our business.

USE OF PROCEEDS

The shares which may be sold under this reoffer prospectus will be sold for the respective accounts of each of the selling stockholders listed herein (who are our executive officers and directors). Accordingly, we will not realize any proceeds from the sale of the shares of our common stock. We will receive proceeds from the exercise of the options; however, no assurance can be given as to when or if any or all of the options will be exercised. If any options are exercised, the proceeds derived therefrom will be used for working capital and general corporate purposes. All expenses of the registration of the shares will be paid by us. See “Selling Stockholders” and “Plan of Distribution.”

SELLING STOCKHOLDERS

This reoffer prospectus relates to the shares of our common stock that are being registered for reoffers and resale by selling stockholders who have acquired or may acquire shares pursuant to the 2013 Plan, 1998 Plan and/or the Option Agreements. Offers and sales by selling stockholders who are our employees, consultants and "affiliates" (as such term is defined in Rule 405 under the Securities Act) are also covered by this reoffer prospectus.

The selling stockholders are our current directors, officers and affiliates who have acquired or may acquire in the future shares of our common stock under the 2013 Plan, 1998 Plan and/or upon exercise of the Option Agreements. The selling stockholders may, from time to time, resell all, a portion or none of the shares of our common stock covered by this reoffer prospectus. The following table sets forth information as of January 2, 2018 with respect to ownership of our common stock by each selling stockholder whose identity is known as of the date of this reoffer prospectus. There is no assurance that any of the selling stockholders will sell any or all of the shares offered by them under this Registration Statement. The address for each selling stockholders listed below is c/o BioLife Solutions, Inc., 3303 Monte Villa Parkway, Suite 310, Bothell, Washington 98021.

Any changed information will be set forth in an amendment to the Registration Statement or supplement to this reoffer prospectus, to the extent required by law.

Name		Number of Shares Owned (1)	Number of Shares to be Offered for the Account of the Selling Stockholder (2)(3)	Number of Shares to be Owned After Offering	% Owned After Offering	
Michael Rice	(4)	1,272,585	1,251,818	20,767	*	
Aby J. Mathew	(5)	714,840	669,226	45,614	*	
Roderick de Greef	(6)	520,502	520,502	—	—	
James Mathers	(7)	223,780	223,780	—	—	
Karen Foster	(8)	276,240	276,240	—	—	
Todd Berard	(9)	267,792	267,792	—	—	
Raymond Cohen	(10)	112,084	105,226	6,858	*	
Thomas Girschweiler	(11)	4,436,727	122,870	4,313,857	28.3	%
Andrew Hinson	(12)	106,175	106,175	—	—	
Joseph Schick	(13)	55,551	55,551	—	—	

*Less than 1%

(1) Represents common stock owned as of the date hereof by the selling stockholders.

(2) Represents shares of common stock that are issued or to be issued, or which may be acquired upon the exercise of stock options issued or to be issued, or vesting of restricted stock awards issued or to be issued, pursuant to the 2013 Plan and/or 1998 Plan, as well as shares of our common stock which may be acquired upon the exercise of stock options pursuant to the Option Agreements.

(3) These shares constitute “control securities” as such term is defined in General Instruction C to Form S-8.

(4) Michael Rice is our President and Chief Executive Officer. The securities to be registered for resale by Mr. Rice include 68,750 shares of common stock issued upon vesting of outstanding restricted stock awards issued pursuant to the Plan, 50,000 shares of common stock to be issued upon vesting of outstanding unvested restricted stock awards issued pursuant to the Plan, 612,695 shares of common stock issuable upon exercise of outstanding vested options (328,842 shares of which are issuable upon exercise of options that were issued pursuant to Option Agreement outside of the Plan) and 520,373 shares of common stock issuable upon exercise of outstanding unvested options issued pursuant to the Plan.

(5) Aby J. Mathew is our Chief Technology Officer. The securities to be registered for resale by Mr. Mathew include 65,916 shares of common stock issued upon exercise of options issued pursuant to the Plan, 17,187 shares of common stock issued upon vesting of outstanding restricted stock awards issued pursuant to the Plan, 23,021 shares of common stock to be issued upon vesting of outstanding unvested restricted stock awards issued pursuant to the Plan, 282,952 shares of common stock issuable upon exercise of outstanding vested options (118,416 shares of which are issuable upon exercise of options that were issued pursuant to Option Agreement outside of the Plan), 280,150 shares of common stock issuable upon exercise of outstanding unvested options issued pursuant to the Plan.

(6) Roderick de Greef is our Chief Financial Officer. The securities to be registered for resale by Mr. de Greef include 136,375 shares of common stock issuable upon exercise of outstanding vested options issued pursuant to the Plan, 14,583 shares of common stock to be issued upon vesting of outstanding unvested restricted stock awards issued pursuant to the Plan, and 369,544 shares of common stock issuable upon exercise of outstanding unvested options issued pursuant to the Plan.

(7) James Mathers is our Vice President of Sales. The securities to be registered for resale by Mr. Mathers include 37,500 shares of common stock issuable upon exercise of outstanding vested options issued pursuant to the Plan, 9,167 shares of common stock to be issued upon vesting of outstanding unvested restricted stock awards issued pursuant to the Plan, and 177,113 shares of common stock issuable upon exercise of outstanding unvested options issued pursuant to the Plan.

(8) Karen Foster is our Vice President of Operations. The securities to be registered for resale by Ms. Foster include 41,666 shares of common stock issuable upon exercise of outstanding vested options issued pursuant to the Plan, 12,917 shares of common stock to be issued upon vesting of outstanding unvested restricted stock awards issued pursuant to the Plan, and 221,657 shares of common stock issuable upon exercise of outstanding unvested options issued pursuant to the Plan.

(9) Todd Berard is our Vice President of Marketing. The securities to be registered for resale by Mr. Berard include 17,187 shares of common stock issued upon vesting of outstanding restricted stock awards issued pursuant to the Plan, 17,396 shares of common stock to be issued upon vesting of outstanding unvested restricted stock awards issued pursuant to the Plan, 72,916 shares of common stock issuable upon exercise of outstanding vested options issued pursuant to the Plan and 160,293 shares of common stock issuable upon exercise of outstanding unvested options issued pursuant to the Plan.

(10) Raymond Cohen is our Chairman of the Board. The securities to be registered for resale by Mr. Cohen include 43,798 shares of common stock issued upon exercise of options issued pursuant to the Plan, 15,000 shares of common stock to be issued upon vesting of outstanding unvested restricted stock awards issued pursuant to the Plan, and 46,428 shares of common stock issuable upon exercise of outstanding vested options (21,428 shares of which are issuable upon exercise of options that were issued pursuant to Option Agreement outside of the Plan).

(11) Thomas Girschweiler is a Director on our Board. The securities to be registered for resale by Mr. Girschweiler include 45,014 shares of common stock issued upon exercise of options issued pursuant to the Plan, 10,000 shares of common stock to be issued upon vesting of outstanding unvested restricted stock awards issued pursuant to the Plan, and 67,856 shares of common stock issuable upon exercise of outstanding vested options (42,856 shares of which are issuable upon exercise of options that were issued pursuant to Option Agreement outside of the Plan).

(12) Andrew Hinson is a Director on our Board. The securities to be registered for resale by Mr. Hinson include 28,319 shares of common stock issued upon exercise of options issued pursuant to the Plan, 10,000 shares of common stock to be issued upon vesting of outstanding unvested restricted stock awards issued pursuant to the Plan, and 67,856 shares of common stock issuable upon exercise of outstanding vested options (42,856 shares of which are issuable upon exercise of options that were issued pursuant to Option Agreement outside of the Plan).

(13) Joseph Schick is a Director on our Board. The securities to be registered for resale by Mr. Schick include 11,623 shares of common stock issued upon exercise of options issued pursuant to the Plan, 10,000 shares of common stock to be issued upon vesting of outstanding unvested restricted stock awards issued pursuant to the Plan, and 33,928 shares of common stock issuable upon exercise of outstanding vested options issued pursuant to the Plan.

PLAN OF DISTRIBUTION

In this section of the reoffer prospectus, the term "selling stockholder" means and includes:

- the persons identified in the table above as the selling stockholders;
- those persons whose identities are not known as of the date hereof but may in the future be eligible to receive options under the 2013 Plan; and
- any of the purchasers, assignees, donees, pledgees, distributees, transferees or other successors in interest of those persons referenced above who may: (a) receive any of the shares of our common stock offered hereby after the date of this reoffer prospectus and (b) offer or sell those shares hereunder.

The shares of our common stock offered by this reoffer prospectus may be sold from time to time directly by the selling stockholders. Alternatively, the selling stockholders may from time to time offer such shares through underwriters, brokers, dealers, agents or other intermediaries. The selling stockholders as of the date of this reoffer prospectus have advised us that there were no underwriting or distribution arrangements entered into with respect to the common stock offered hereby. The distribution of the common stock by the selling stockholders may be effected: in one or more transactions that may take place on Nasdaq or any other stock exchange (including one or more block transaction) through customary brokerage channels, either through brokers acting as agents for the selling stockholders, or through market makers, dealers or underwriters acting as principals who may resell these shares on Nasdaq or any other stock exchange; in privately-negotiated sales; by a combination of such methods; or by other means. These transactions may be effected at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at other negotiated prices. Usual and customary or specifically negotiated brokerage fees or commissions may be paid by the selling stockholders in connection with sales of our common stock.

The selling stockholders may enter into hedging transactions with broker-dealers in connection with distributions of the shares or otherwise. In such transactions, broker-dealers may engage in short sales of the shares of our common stock in the course of hedging the positions they assume with the selling stockholders. The selling stockholders also may sell shares short and redeliver the shares to close out such short positions. The selling stockholders may enter into option or other transactions with broker-dealers which require the delivery to the broker-dealer of shares of our common stock. The broker-dealer may then resell or otherwise transfer such shares of common stock pursuant to this reoffer prospectus.

The selling stockholders also may lend or pledge shares of our common stock to a broker-dealer. The broker-dealer may sell the shares of common stock so lent, or upon a default the broker-dealer may sell the pledged shares of common stock pursuant to this reoffer prospectus. Any securities covered by this reoffer prospectus which qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this reoffer prospectus.

The selling stockholders have advised us that they have not entered into any agreements, understandings or arrangements with any underwriters or broker-dealers regarding the sale of their securities. There is no underwriter or coordinating broker acting in connection with the proposed sale of shares of common stock the selling stockholders.

Although the shares of common stock covered by this reoffer prospectus are not currently being underwritten, the selling stockholders or their underwriters, brokers, dealers or other agents or other intermediaries, if any, that may participate with the selling security holders in any offering or distribution of common stock may be deemed "underwriters" within the meaning of the Securities Act and any profits realized or commissions received by them may be deemed underwriting compensation there under.

Under applicable rules and regulations under the Exchange Act, any person engaged in a distribution of shares of the common stock offered hereby may not simultaneously engage in market making activities with respect to the common stock for a period of up to five days preceding such distribution. The selling stockholders will be subject to the applicable provisions of the Exchange Act and the rules and regulations promulgated there under, including without limitation Regulation M, which provisions may limit the timing of purchases and sales by the selling stockholders.

In order to comply with certain state securities or blue sky laws and regulations, if applicable, the common stock offered hereby will be sold in such jurisdictions only through registered or licensed brokers or dealers. In certain states, the common stock may not be sold unless they are registered or qualified for sale in such state, or unless an exemption from registration or qualification is available and is obtained.

We will bear all costs, expenses and fees in connection with the registration of the common stock offered hereby. However, the selling stockholders will bear any brokerage or underwriting commissions and similar selling expenses, if any, attributable to the sale of the shares of common stock offered pursuant to this reoffer prospectus. We have agreed to indemnify certain of the selling security holders against certain liabilities, including liabilities under the Securities Act, or to contribute to payments to which any of those security holders may be required to make in respect thereof.

There can be no assurance that the selling stockholders will sell any or all of the securities offered by them hereby.

LEGAL MATTERS

The validity of the securities being offered herein has been passed upon for us by Ellenoff Grossman & Schole LLP, New York, New York.

EXPERTS

The consolidated financial statements of our company as of and for the years ended December 31, 2016 and 2015 incorporated by reference in this reoffer prospectus have been incorporated by reference in this prospectus in reliance upon the report of Peterson Sullivan LLP, an independent registered public accounting firm, incorporated by reference herein, and upon the authority of Peterson Sullivan LLP as experts in accounting and auditing.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The following documents are incorporated by reference into this reoffer prospectus:

- our Annual Report on Form 10-K for the year ended December 31, 2016 as filed with the SEC on March 15, 2017;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017, June 30, 2017 and September 30, 2017 as filed with the SEC on May 12, 2017, August 11, 2017 and November 9, 2017, respectively;
- our Current Reports on Form 8-K as filed with the SEC on January 4, 2017, January 13, 2017, February 16, 2017, March 3, 2017, March 9, 2017, May 11, 2017, June 1, 2017, July 6, 2017, August 10, 2017, October 30, 2017, November 9, 2017 and December 14, 2017;
- our definitive proxy statement Schedule 14A filed with the SEC on April 14, 2017; and
- The description of the Company's common stock contained in the Company's registration statement on Form 8-A, as filed with the Commission on March 19, 2014 under Section 12 of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

All reports and definitive proxy or information statements filed pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (excluding any information furnished pursuant to Item 2.02 or Item 7.01 of any Current Report on Form 8-K) subsequent to the filing of this Registration Statement and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which de-registers all securities then remaining unsold shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of filing such documents, except as to specific sections of such statements as set forth therein. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in any subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement.

WHERE YOU CAN FIND MORE INFORMATION

We have filed a Registration Statement with the Securities and Exchange Commission under the Securities Act with respect to the shares of our common stock offered by this reoffer prospectus. This reoffer prospectus is part of that Registration Statement and does not contain all the information included in the Registration Statement. For further information with respect to our common stock and us, you should refer to the Registration Statement, its exhibits and the materials incorporated by reference therein. Portions of the exhibits have been omitted as permitted by the rules and regulations of the Securities and Exchange Commission. Statements made in this reoffer prospectus as to the contents of any contract, agreement or other document referred to are not necessarily complete. In each instance, we refer you to the copy of the contracts or other documents filed as exhibits to the Registration Statement, and these statements are hereby qualified in their entirety by reference to the contract or document. The Registration Statement may be inspected and copied at the public reference facilities maintained by the Securities and Exchange Commission at Room 1024, Judiciary Plaza, 100 F Street, N.E., Washington, D.C. 20549 and the Regional Offices at the Commission located in the Citicorp Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661, and at 233 Broadway, New York, New York 10279. Copies of those filings can be obtained from the Commission's Public Reference Section, Judiciary Plaza, 100 F Fifth Street, N.E., Washington, D.C. 20549 at prescribed rates and may also be obtained from the web site that the Securities and Exchange Commission maintains at http://www.sec.gov. You may also call the Commission at 1-800-SEC-0330 for more information. We file annual, quarterly and current reports and other information with the Securities and Exchange Commission. You may read and copy any reports, statements or other information on file at the Commission's public reference room in Washington, D.C. You can request copies of those documents upon payment of a duplicating fee, by writing to the Securities and Exchange Commission.

DISCLOSURE OF COMMISSION POSITION ON

INDEMNIFICATION FOR SECURITIES LAW VIOLATIONS

Section 145 of the Delaware General Corporation Law, or Delaware law, inter alia, empowers a Delaware corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of the corporation) by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. Similar indemnity is authorized for such persons against expenses (including attorneys' fees) actually and reasonably incurred in connection with the defense or settlement of any such threatened, pending or completed action or suit if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and provided further that (unless a court of competent jurisdiction otherwise provides) such person shall not have been adjudged liable to the corporation. Any such indemnification may be made only as authorized in each specific case upon a determination by the stockholders or disinterested directors or by independent legal counsel in a written opinion that indemnification is proper because the indemnitee has met the applicable standard of conduct.

Section 145 further authorizes a corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or enterprise, against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the corporation would otherwise have the power to indemnify him under Section 145. We maintain policies insuring our officers and directors against certain liabilities for actions taken in such capacities, including liabilities under the Securities Act.

Our certificate of incorporation and bylaws require us to indemnify our directors to the fullest extent permitted under Delaware law or any other applicable law in effect, but if such statute or law is amended, we may change the standard of indemnification only to the extent that such amended statute or law permits us to provide broader indemnification rights to our directors. We must indemnify such officers and employees in the same manner and to the same extent that we are required to indemnify our directors under our certificate of incorporation and bylaws. Our certificate of incorporation limits the personal liability of a director to us or our stockholders to damages for breach of the director's fiduciary duty. Pursuant to indemnification agreements we entered into with each of our directors, we are further required to indemnify our directors to the fullest extent permitted under Delaware law and our bylaws; provided that each such director shall enjoy the greater of (i) the advancement and indemnification rights permitted under our certificate of incorporation and bylaws for directors and officers as of the date of such indemnification agreement or (ii) the benefits so afforded by amendments thereto.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable.

You should rely only on the information contained in this document. We have not authorized anyone to provide you with information that is different. This document may only be used where it is legal to sell these securities. The information in this document may only be accurate on the date of this document.

Additional risks and uncertainties not presently known may also impair our business operations. The risks and uncertainties described in this document and other risks and uncertainties which we may face in the future will have a greater impact on those who purchase our common stock. These purchasers will purchase our common stock at the market price or at a privately negotiated price and will run the risk of losing their entire investment.

Up to 4,772,247 Shares of Common Stock under the BioLife Solutions, Inc. Second Amended & Restated 2013 Performance Incentive Plan, the BioLife Solutions, Inc. 1998 Stock Option Plan, as amended, and various Non-Plan Stock Option Agreements

PROSPECTUS

January 5, 2018

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 3. Incorporation of Documents by Reference.

The Company hereby incorporates by reference into this Registration Statement the following documents previously filed with the SEC:

- our Annual Report on Form 10-K for the year ended December 31, 2016 as filed with the SEC on March 15, 2017;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017, June 30, 2017 and September 30, 2017 as filed with the SEC on May 12, 2017, August 11, 2017 and November 9, 2017, respectively;
- our Current Reports on Form 8-K as filed with the SEC on January 4, 2017, January 13, 2017, February 16, 2017, March 3, 2017, March 9, 2017, May 11, 2017, June 1, 2017, July 6, 2017, August 10, 2017, October 30, 2017 and November 9, 2017;
- our definitive proxy statement Schedule 14A filed with the SEC on April 14, 2017; and
- The description of the Company's common stock contained in the Company's registration statement on Form 8-A, as filed with the Commission on March 19, 2014 under Section 12 of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

All reports and definitive proxy or information statements filed pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (excluding any information furnished pursuant to Item 2.02 or Item 7.01 of any Current Report on Form 8-K) subsequent to the filing of this Registration Statement and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which de-registers all securities then remaining unsold shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of filing such documents, except as to specific sections of such statements as set forth therein. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in any subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

The validity of the shares of common stock offered hereby will be passed upon by Ellenoff Grossman & Schole LLP, counsel to the Registrant.

Item 6. Indemnification of Officers and Directors.

Section 145 of the Delaware General Corporation Law, or Delaware law, inter alia, empowers a Delaware corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of the corporation) by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. Similar indemnity is authorized for such persons against expenses (including attorneys' fees) actually and reasonably incurred in connection with the defense or settlement of any such threatened, pending or completed action or suit if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and provided further that (unless a court of competent jurisdiction otherwise provides) such person shall not have been adjudged liable to the corporation. Any such indemnification may be made only as authorized in each specific case upon a determination by the stockholders or disinterested directors or by independent legal counsel in a written opinion that indemnification is proper because the indemnitee has met the applicable standard of conduct.

Section 145 further authorizes a corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or enterprise, against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the corporation would otherwise have the power to indemnify him under Section 145. We maintain policies insuring our officers and directors against certain liabilities for actions taken in such capacities, including liabilities under the Securities Act.

Our certificate of incorporation and bylaws require us to indemnify our directors to the fullest extent permitted under Delaware law or any other applicable law in effect, but if such statute or law is amended, we may change the standard of indemnification only to the extent that such amended statute or law permits us to provide broader indemnification rights to our directors. We must indemnify such officers and employees in the same manner and to the same extent that we are required to indemnify our directors under our certificate of incorporation and bylaws. Our certificate of incorporation limits the personal liability of a director to us or our stockholders to damages for breach of the director's fiduciary duty. Pursuant to indemnification agreements we entered into with each of our directors, we are further required to indemnify our directors to the fullest extent permitted under Delaware law and our bylaws; provided that each such director shall enjoy the greater of (i) the advancement and indemnification rights permitted under our certificate of incorporation and bylaws for directors and officers as of the date of such indemnification agreement or (ii) the benefits so afforded by amendments thereto.

Item 7. Exemption from Registration Claimed.

All shares of common stock registered hereunder for reoffer or resale have been or will be issued to our employees and consultants pursuant to the 2013 Plan, 1998 Plan or the Option Agreements and a restrictive legend is placed on the certificates for the shares of common stock purchased and transfer stops are placed against such certificates. Such shares may only be reoffered and sold pursuant to registration under the Securities Act or pursuant to an applicable exemption under the Securities Act. As a result, such offers and sales are exempt from the registration requirements of the Securities Act pursuant to the provisions of Section 4(a)(2) of the Securities Act.

Item 8. Exhibits.

Number	Description
4.1	BioLife Solutions, Inc. Second Amended and Restated 2013 Performance Incentive Plan (incorporated by reference to Appendix A of the Registrant's Definitive Proxy Statement filed on April 14, 2017)
4.2	BioLife Solutions, Inc. 1998 Stock Option Plan, as amended (incorporated by reference to Exhibit 4.3 of the Registrant's Registration Statement on Form S-8 filed on June 24, 2013)
4.3	BioLife Solutions, Inc. Form of Non-Plan Stock Option Agreement (incorporated by reference to Exhibit 4.4 of the Registrant's Registration Statement on Form S-8 filed on June 24, 2013)
5.1	Opinion of Ellenoff Grossman & Schole LLP (*)
5.2	

	Opinion of Dorsey & Whitney LLP (incorporated by reference to Exhibit 5.1 of the Registrant's Registration Statement on Form S-8 filed on June 24, 2013)
5.3	Opinion of Dorsey & Whitney LLP (incorporated by reference to Exhibit 5.1 of the Registrant's Registration Statement on Form S-8 filed on June 19, 2015)
23.1	Consent of Ellenoff Grossman & Schole LLP (included in Exhibit 5.1)
23.2	Consent of Peterson Sullivan LLP (*)
23.3	Consent of Dorsey & Whitney LLP (included in Exhibit 5.2)
23.4	Consent of Dorsey & Whitney LLP (included in Exhibit 5.3)
24.1	Power of Attorney (included in the signature page to this Registration Statement)

*Filed herewith

Item 9. Undertakings.

(a) The Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

Provided, however, that paragraphs (a)(1)(a) and (a)(1)(b) do not apply if the Registration Statement is on Form S-8 and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the SEC by the Registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Bothell, State of Washington, on January 5, 2018.

BIOLIFE SOLUTIONS, INC.

/s/ Michael Rice
Name: Michael Rice
Title: President and Chief Executive Officer
(Principal Executive Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below does hereby constitute and appoint Michael Rice and Roderick de Greef, and each of them, with full power of substitution, such person's true and lawful attorneys-in-fact and agents for such person, with full power and authority to do any and all acts and things and to execute any and all instruments which said attorneys and agents, and any one of them, determine may be necessary or advisable or required to enable said corporation to comply with the Securities Act of 1933, as amended, and any rules or regulations or requirements of the Securities and Exchange Commission in connection with this Registration Statement. Without limiting the generality of the foregoing power and authority, the powers granted include the power and authority to sign the names of the undersigned officers and directors in the capacities indicated below to this Registration Statement, to any and all amendments, both pre-effective and post-effective, and supplements to this Registration Statement, and to any and all instruments or documents filed as part of or in conjunction with this Registration Statement or amendments or supplements thereof, and each of the undersigned hereby ratifies and confirms that all said attorneys and agents, or any one of them, shall do or cause to be done by virtue hereof. This Power of Attorney may be signed in several counterparts.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Michael Rice	President and Chief Executive Officer	January 5, 2018

Michael Rice	(Principal Executive Officer)	
/s/ Roderick de Greef Roderick de Greef	Chief Financial Officer (Principal Financial and Accounting Officer)	January 5, 2018
/s/ Raymond Cohen Raymond Cohen	Chairman of the Board of Directors	January 5, 2018
/s/ Thomas Girschweiler Thomas Girschweiler	Director	January 5, 2018
/s/ Andrew Hinson Andrew Hinson	Director	January 5, 2018
/s/ Joseph Schick Joseph Schick	Director	January 5, 2018