INTERLEUKIN GENETICS INC
Form S-1/A
July 26, 2013

As filed with the Securities and Exchange Commission on July 26, 2013

Registration Statement No. 333-189749

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

Amendment No. 1

to

FORM S-1

REGISTRATION STATEMENT

under the

SECURITIES ACT OF 1933

INTERLEUKIN GENETICS, INC.

(*Exact Name of Registrant as Specified in Its Charter)*

Delaware	**2835**	**94-3123681**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

135 Beaver Street

Waltham, Massachusetts 02452

(781) 398-0700

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Kenneth S. Kornman

Chief Executive Officer

Interleukin Genetics, Inc.

135 Beaver Street

Waltham, Massachusetts 02452

(781) 398-0700

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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Boston, Massachusetts 02111

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Approximate date of commencement of proposed sale to the public: From time to time after this registration statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box. x

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

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

Large accelerated filer ¨	Accelerated filer ¨
Non-accelerated filer ¨ (Do not check if a smaller reporting company)	Smaller reporting company x

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	**Amount to be Registered(1)**	**Proposed Maximum Offering Price per Share (2)**	**Proposed Maximum Aggregate Offering Price**	**Amount of Registration Fee (**
Common Stock, par value $0.001 per share	120,408,197	$ 0.465	$ 55,989,812	$ 7,637

(1) All of the shares of common stock offered hereby are for the account of selling stockholders and consist of 85,326,230 issued and outstanding shares and 35,081,967 shares issuable upon the exercise of warrants. Pursuant to Rule 416 of the Securities Act of 1933, as amended (the "Securities Act"), this registration statement also covers any additional shares of common stock which become issuable by reason of any share dividend, share split, recapitalization or any other similar transaction without receipt of consideration which results in an increase in the number of shares or common stock outstanding.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act based upon the average of the high and low prices for the common stock on June 25, 2013, as reported on the OTCQB.

(3) Previously paid.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of

1933, as amended, or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. THE SECURITY HOLDERS IDENTIFIED IN THIS PROSPECTUS MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED JULY 26, 2013

PRELIMINARY PROSPECTUS

120,408,197 SHARES OF COMMON STOCK

This prospectus relates to the resale, from time to time, by the selling stockholders named in this prospectus or their pledgees, donees, transferees, or other successors in interest of up to 120,408,197 shares of our common stock. These shares consist of 85,326,230 issued and outstanding shares and 35,081,967 shares underlying warrants. These shares and warrants were issued in connection with a private placement completed on May 17, 2013 and consist of (1) 43,715,847 shares and 32,786,885 shares underlying warrants issued to the investors in the private placement, (2) 28,160,200 shares issued to Pyxis Innovations Inc. upon conversion of 5,000,000 shares of our Series A-1 Convertible Preferred Stock immediately prior to the private placement, (3) 2,521,222 shares issued to Pyxis upon conversion of $14,316,255 in principal amount of convertible debt immediately prior to the private placement, (4) 10,928,961 shares issued to Delta Dental Plan of Michigan, Inc. upon conversion of 500,000 shares of our Series B Convertible Preferred Stock immediately prior to the private placement, and (5) 2,295,082 shares underlying warrants issued to BTIG, LLC, the placement agent in the private placement, and its affiliates, as placement agent compensation.

Our common stock is traded on the OTCQB under the symbol “ILIU”. On July 25, 2013, the closing sale price of our common stock on the OTCQB was $0.375 per share.

The selling stockholders may offer and sell any of the shares from time to time at fixed prices, at market prices or at negotiated prices, and may engage a broker, dealer or underwriter to sell the shares. For additional information on the possible methods of sale that may be used by the selling stockholders, you should refer to the section entitled “Plan of Distribution” elsewhere in this prospectus. We will not receive any proceeds from the sale of any shares by the selling

stockholders. We may, however, receive the proceeds of any cash exercises of warrants. We do not know when or in what amount the selling stockholders may offer the shares for sale. The selling stockholders may sell any, all or none of the shares offered by this prospectus.

AN INVESTMENT IN OUR COMMON STOCK INVOLVES RISKS. SEE THE SECTION ENTITLED "RISK FACTORS" BEGINNING ON PAGE 4.

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 , 2013

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You should read this prospectus and any applicable prospectus supplement before making an investment in the securities of Interleukin Genetics, Inc. See "Where You Can Find More Information" for more information. You should rely only on the information contained in this prospectus or a prospectus supplement. The Company has not authorized anyone to provide you with different information. This document may be used only in jurisdictions where offers and sales of these securities are permitted. You should assume that information contained in this prospectus or a prospectus supplement is accurate only as of any date on the front cover of the applicable document. Our business, financial condition, results of operations and prospects may have changed since that date. Unless otherwise noted in this prospectus, "Interleukin Genetics," "Interleukin," "the Company," "we," "us," "our" and similar terms refer to Interleukin Genetics, Inc.

Smaller Reporting Company – Scaled Disclosure

Pursuant to Item 10(f) of Regulation S-K promulgated under the Securities Act of 1933, as indicated herein, we have elected to comply with the scaled disclosure requirements applicable to "smaller reporting companies," including providing two years of audited financial statements.

PROSPECTUS SUMMARY

This summary highlights some information from this prospectus. It may not contain all the information important to making an investment decision. You should read the following summary together with the more detailed information regarding our Company and the securities being sold in this offering, including "Risk Factors" and other information contained herein.

Overview

Interleukin Genetics, Inc. is a personalized health company that develops unique genetic tests to provide information to better manage health and specific health risks. Our overall mission is to provide genetic testing services to empower individuals, physicians and dentists to better guide lifestyle and treatment options that can help individuals maintain or improve their health. We believe that our proprietary genetic tests can help our commercial distribution partners provide improved services to their customers, empower individuals to personalize their health, and assist pharmaceutical companies to improve drug development and use by identifying subpopulations that are more responsive to a therapy. Our business focuses on personalized health, by providing genetic tests with strong clinical value. Our tests are made available via marketing partners or directly to end users. We have patents covering the use of certain gene variations and specific combinations of gene variations for a number of common chronic diseases and conditions.

Until recently, scientific study of chronic health conditions has largely focused on identifying initiating factors that are causative and ways to alter or reverse the cause or condition. Common examples of altering or reversing initiating factors include calorie reduction in the case of being overweight, reducing levels of cholesterol in the case of heart disease, elimination of bacteria in the case of periodontal disease and increasing estrogen levels in the case of osteoporosis. However, it is now well established that while intiating factors are essential for disease, the mere presence of such factors does not necessarily determine whether a single individual will develop an illness, have mild or severe disease, or respond the same way as everyone else. Many common conditions arise in part as a result of how our bodies respond and interact with various environmental factors.

Our Products

Our genetic tests that are currently being commercialized are:

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PST®: This genetic test analyzes genetic variations associated with inflammation and identifies individuals who are at increased risk for more severe periodontal disease.

- *Weight Management Genetic Test*: This test determines whether a low fat, low carbohydrate or balanced diet may be best and whether normal or vigorous exercise is needed to most efficiently lose existing body fat. This test is marketed under our Inherent Health® brand.

- *Bone Health Genetic Test*: This test is designed to identify whether an individual is more likely to be susceptible to spine fractures and low bone mineral density associated with osteoporosis. This test is marketed under our Inherent Health® brand.

- *Heart Health Genetic Test*: This test is designed to identify genetic predisposition to excess inflammation, which is a risk factor for heart attack. This test is marketed under our Inherent Health® brand.

- *Wellness Select Genetic Test:* This allows buyers to purchase any combination of Inherent Health® genetic tests at a discounted price. This is marketed under our Inherent Health® brand.

In February 2013, we entered into a Preferred Participation Agreement with Renaissance Health Services Corporation, or RHSC, the parent corporation of eight Delta Dental member companies operating in their eight respective states, with respect to reimbursement of our PST® test. We market our Inherent Health® brand of genetic assessment tests primarily through our Merchant Network and Channel Partner Agreement with Alticor's Amway Global Company.

In addition to the genetic tests listed above that we are currently marketing, we are also focusing our genetic test development efforts on the development of an Osteoarthritis, or OA, genetic test to identify individuals at increased risk for severe OA.

Business Strategy

Our revenue model consists of:

- sales of our Inherent Health® brand of genetic tests either directly to end users or through partnerships such as the Amway Global channel;
- sales of our Inherent Health® brand of genetic tests to commercial distribution partners such as regional weight loss centers;
- sales of our PST® genetic tests to insurance providers; and
- license fees for intellectual property used in the sale of partner genetic tests.

Our primary business focus and strategy is to continue our commercialization efforts with our PST® genetic test. In addition, we plan to continue to develop and sell tests for our own business needs under the Inherent Health® brand.

We market our Inherent Health® brand of genetic assessment tests primarily through our Merchant Network and Channel Partner Agreement with Alticor's Amway Global Company. Under this agreement, Amway Global's independent business owners, or IBOs, are able to purchase the Inherent Health® brand of genetic tests via a hyperlink from the Amway Global website to the Inherent Health® website. We believe our proprietary genetic test brands support the efforts of Amway Global to develop personalized consumer products for their IBOs' customers. Sales with Amway Global through this business arrangement began in December 2009.

Recent Developments

The Private Placement

On May 17, 2013, we entered into a Common Stock Purchase Agreement (the "Purchase Agreement") with various accredited investors (the "Purchasers"), pursuant to which we sold securities to the Purchasers in a private placement transaction (the "Private Placement"). In the Private Placement, we sold an aggregate of 43,715,847 shares of our common stock at a price of $0.2745 per share for gross proceeds of $12,000,000. The Purchasers also received

warrants to purchase up to an aggregate of 32,786,885 shares of common stock an exercise price of $0.2745 per share (the "Warrants"). The Warrants have a term of seven years from the date they become exercisable. Sixty-three percent of the shares issuable pursuant to the Warrants were exercisable immediately upon issuance, and the remaining 37% become exercisable following the Share Authorization Increase (as defined below).

In addition, pursuant to the Purchase Agreement, each Purchaser has the right, at any time and from time to time following the date of shareholder approval of an amendment to our Certificate of Incorporation to increase the number of authorized shares of common stock from 150,000,000 shares to 300,000,000 shares (the "Share Authorization Increase") and on or before June 30, 2014 (the "Expiration Date"), to purchase at one or more subsequent closings its pro rata share of up to an aggregate of 18,214,936 additional shares of common stock at a purchase price of $0.2745 per share and warrants to purchase up to an aggregate of 13,661,201 shares of common stock at an exercise price of $0.2745 per share (the "Additional Investment"). If, prior to the Expiration Date, Purchasers have not purchased their entire pro rata share of the Additional Investment, Purchasers who have purchased their entire pro rata share of the Additional Investment, will be entitled to purchase the unsold portion of the Additional Investment.

Immediately prior to the closing of the Private Placement, and in accordance with the terms of the Purchase Agreement: (i) Pyxis Innovations Inc. ("Pyxis"), the sole holder of our outstanding Series A-1 Convertible Preferred Stock converted all 5,000,000 shares of outstanding Series A-1 stock into 28,160,200 shares of our common stock (the "Series A-1 Conversion"); (ii) Pyxis, the sole holder of our outstanding convertible debt, converted all of the principal amount of debt outstanding ($14,316,255) into 2,521,222 shares of our common stock (the "Debt Conversion"); and (iii) Delta Dental Plan of Michigan, Inc. ("DDMI"), the sole holder of our outstanding Series B Convertible Preferred Stock converted all 500,000 outstanding shares of Series B stock into 10,928,961 shares of common stock (the "Series B Conversion").

For its services as exclusive placement agent in the Private Placement, BTIG, LLC ("BTIG") received cash compensation in the amount of approximately $780,000 and BTIG and an affiliate received warrants to purchase an aggregate of 2,295,082 shares of our common stock, at an exercise price of $0.2745 per share (the "BTIG Warrants"). The BTIG Warrants have a term of seven years from the date they become exercisable.

In connection with the Private Placement, we also entered into a Registration Rights Agreement with the Purchasers, Pyxis, DDMI and BTIG, pursuant to which we are required to file a registration statement on Form S-1 within 45 days of May 17, 2013 to cover the resale of (i) the shares sold in the Private Placement and the shares of common stock underlying the Warrants issued in the Private Placement, (ii) the shares of common stock issued to Pyxis pursuant to the Series A-1 Conversion and the Debt Conversion, (iii) the shares of common stock issued to DDMI pursuant to the Series B Conversion, and (iv) the shares of common stock underlying the BTIG Warrants. In addition, within 45 days following the Expiration Date, we will be required to file a registration statement to cover the resale of (i) any shares of common stock sold to the Purchasers pursuant to the Additional Investment and the shares of common stock underlying any warrants issued pursuant to the Additional Investment, and (ii) shares of common stock underlying any additional warrants issued to BTIG as placement agent compensation in connection with the Additional Investment. The failure on the part of Interleukin to satisfy certain deadlines described in the Registration Rights Agreement may subject us to payment of certain monetary penalties.

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Corporate Information

Our executive offices are located at 135 Beaver Street, Waltham, Massachusetts 02452, and our telephone number is (781) 398-0700. We were incorporated in Texas in 1986 and we re-incorporated in Delaware in March 2000. We maintain websites at *www.ilgenetics.com* and *www.inherenthealth.com*. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and all amendments to such reports are available to you free of charge through the Investor Relations Section of *www.ilgenetics.com* as soon as practicable after such materials have been electronically filed with, or furnished to, the Securities and Exchange Commission. The information contained on our websites are not incorporated by reference into this prospectus. We have included our website addresses only as an inactive textual reference and do not intend them to be active links to our websites.

The Offering

Common stock offered by the selling stockholders	Up to 120,408,197 shares of common stock, consisting of 85,326,230 issued and outstanding shares and 35,081,967 shares underlying Warrants.
Use of proceeds	We will not receive any proceeds from the sale of the shares offered by this prospectus. We may, however, receive the proceeds of any cash exercises of Warrants which, if received, would be used by us for working capital purposes.
OTCQB trading symbol	ILIU

RISK FACTORS

An investment in shares of our common stock involves a high degree of risk. You should carefully consider the following information about these risks, together with the other information appearing elsewhere in this prospectus, including our financial statements and related notes thereto, before deciding to invest in our common stock. The occurrence of any of the following risks could have a material adverse effect on our business, financial condition, results of operations and future growth prospects. In these circumstances, the market price of our common stock could decline, and you may lose all or part of your investment.

Risks Related to Our Business, Our Financial Results and Need for Financing

The timing and amount of revenues, if any, that we may receive pursuant to our Preferred Participation Agreement with RHSC and its affiliates is uncertain.

Although we have entered into a Preferred Participation Agreement with RHSC, for itself and on behalf of certain of its affiliates and subsidiaries, pursuant to which RHSC affiliates are expected to develop and offer dental benefit plans that provide for use of the PST® test and reimbursement of the test at an agreed upon price (each such plan, hereinafter referred to as a "Reimbursed Dental Plan"), the timing of any revenues that we may receive under this agreement is dependent upon the timing of the offering of such Reimbursed Dental Plans, which timing is very uncertain at this time. Our current intent is to market our PST® test through Reimbursed Dental Plans offered and sold by RHSC's affiliates to employer groups for plan years starting in January 2014. Accordingly, the earliest that we may receive any significant revenues under this agreement is in the first quarter of 2014, and the timing of any such revenues may be substantially later. The failure to begin receiving significant revenues under this agreement in 2014 would require us to obtain additional funding and would have a material adverse effect on our business.

We have a history of operating losses and expect these losses to continue in the future.

We have experienced significant operating losses since our inception and expect these losses to continue for some time. We incurred losses from continuing operations of $5.2 million in 2011, $5.1 million in 2012 and $1.1 million in the three months ended March 31, 2013. As of March 31, 2013, our accumulated deficit was $108.9 million. Our losses result primarily from research and development, selling, general and administrative expenses and amortization of intangible assets. Although we generate revenues from sales of our genetic risk assessment tests, this may not be sufficient to result in net income in the foreseeable future. We will need to generate significant revenue to continue our research and development programs and achieve profitability. We cannot predict when, if ever, we will achieve profitability.

Current economic conditions could adversely affect our business and results of operations.

Economic conditions and financial markets have been experiencing extreme disruption including, among other things, extreme volatility in prices of publicly traded securities, severely diminished liquidity, severely restricted credit availability, rating downgrades of certain investments and declining valuations of others. We believe the current economic conditions and financial market turmoil could adversely affect our operations. Uncertainty about current and future economic conditions may cause consumers to reign in their spending generally, the impact of which may be that they stop or delay their purchases of our genetic tests and consumer products. If these circumstances persist or continue to worsen, our future operating results could be adversely affected, particularly relative to our current expectations.

We could become subject to intense competition from other companies, which may damage our business.

The field of personalized health is highly competitive. Our potential competitors in the United States and abroad are numerous and include, among others, major pharmaceutical and diagnostic companies, consumer products companies, specialized biotechnology firms, universities and other research institutions. Many of our competitors have considerably greater financial, technical, marketing and other resources. Furthermore, many of these competitors are more experienced than we are in discovering, commercializing and marketing products. These greater resources may allow our competitors to discover important genes or genetic markers and more quickly and effectively develop and commercialize genetic tests than we or our partners are able to do. If we are not able to successfully market genetic tests, either alone or through collaborations such as our Preferred Participation Agreement with RHSC and its affiliates, our business will be materially harmed. We expect competition to intensify in our industry as technical advances are made and become more widely known.

The market for personalized health generally and genetic risk assessment tests in particular is unproven.

The markets and customer base in the field of personalized health are not well established. Adoption of technologies in this emerging field requires substantial market development and there can be no assurance that channels for marketing our products can or will be successfully developed by us or others. As a result, there can be no assurance that our products will be successfully commercialized or that they can be sold at sufficient volumes to make them profitable. If our potential customers do not accept our products, or take a longer time to accept them than we anticipate, it will reduce our anticipated sales and materially harm our business.

The market for genetic risk assessment tests, as part of the field of personalized health, is at an early stage of development and may not continue to grow. The scientific community, including us, has only a limited understanding of the role of genes in predicting disease. The success of our genetic risk assessment tests will depend upon their acceptance as being useful and cost-effective to the individuals who purchase these products, the physicians and other members of the medical community who recommend or prescribe them, as well as third-party payers, such as insurance companies and the government. We can only achieve broad market acceptance with substantial education about the benefits and limitations of genetic risk assessment tests while providing the tests at a fair cost. For example, it may be difficult to convince the dental community and dental patients that one cleaning per year is sufficient for Low Risk patients, and we expect to expend significant funds and resources to educate dentists and patients with respect to the benefits of our PST® test. Furthermore, while positive media attention resulting from new scientific studies or announcements can spur rapid growth in individual segments of the market, and also impact individual brands, news that challenges individual segments or products can have a negative impact on the industry overall as well as on sales of the challenged segments or products. The marketplace may never accept our products, and we may never be able to successfully commercialize our products, including the PST® test.

Ethical, legal and social issues related to genetic testing may reduce demand for our products.

Genetic testing has raised concerns regarding the appropriate utilization and the confidentiality of information provided by genetic testing. Genetic tests for assessing a person’s likelihood of developing a chronic disease have focused public attention on the need to protect the privacy of genetic information. For example, concerns have been expressed that insurance carriers and employers may use these tests to discriminate on the basis of genetic information, resulting in barriers to the acceptance of genetic tests by consumers. This could lead to governmental authorities prohibiting genetic testing or calling for limits on or regulating the use of genetic testing, particularly for diseases for which there is no known cure. Any of these scenarios could decrease demand for our products.

Technological changes may cause our tests to become obsolete.

We have to date focused our efforts on genetic tests based on a small number of candidate genes. It is now possible to use array technology to conduct whole genome association studies for risk assessment, which may make our technologies obsolete. In order to develop customers and markets for our genetic risk assessment tests, we may be required to invest substantial additional capital and other resources.

We have limited experience and capabilities with respect to distributing, marketing and selling genetic tests on our own and will continue to depend substantially on third parties to commercialize our tests.

We have very limited experience and capabilities with respect to distributing, marketing and selling genetic risk assessment tests on our own. In June 2009, we announced the launch of our new Inherent Health® brand of genetic tests. On October 26, 2009, we entered into an agreement with Amway Global, an affiliate of Alticor, pursuant to which it sells our Inherent Health® brand of genetics tests through its e-commerce Web site via a hyperlink to our e-commerce site. In 2012 and 2011, revenues from this agreement accounted for 65% and 66% of our revenues, respectively. During 2012 we marketed and distributed our PST® test directly to dentists and periodontists via Quest Diagnostic's subsidiary, OralDNA Labs in the U.S. With the PDPS yielding positive results, we executed a Preferred Participation Agreement obtaining reimbursement coverage for the PST® test from RHSC and its affiliates. Based on this agreement we will no longer sell the test through OralDNA Labs, and we are dependent on the timing of the offering of Reimbursed Dental Plans by RHSC affiliates, which timing is very uncertain at this time, and the ability of RHSC affiliates to successfully commercialize such Reimbursed Dental Plans. In addition, we have started to market and sell our genetic tests through other health care and professional channels, and we may attempt to negotiate marketing and distribution agreements with third parties, although there can be no assurances we will be able to do so. We have, to date, had very limited success in marketing and selling our genetic tests, and we can provide no assurance that our current or planned commercialization efforts will be successful.

If we are unsuccessful in establishing additional strategic alliances, our ability to develop and market products and services may be damaged.

Entering into additional strategic alliances for the development and commercialization of products and services based on our discoveries is an important element of our business strategy. We face significant competition in seeking appropriate collaborators. If we fail to maintain our existing alliances or to establish additional strategic alliances or other alternative arrangements, then our ability to develop and market products and services will be damaged. In addition, the terms of any future strategic alliances may be unfavorable to us or these strategic alliances may be unsuccessful.

Because our products are based on emerging science, if we make changes to our tests based on new scientific findings, market acceptance of our products may decrease and we may be exposed to liability in excess of our product liability insurance coverage.

Our genetic test products are based on emerging science, and we continue to conduct studies to further enhance the usefulness and scientific credibility of our products. If we make changes to our tests based on new data, it could harm our credibility, decrease market acceptance of our products or expose us to liability claims. We currently maintain product liability insurance, but it is often difficult to obtain, is expensive and may not be available in the future on

economically acceptable terms. In addition, potential product liability claims may exceed the amount of our insurance coverage or may be excluded from coverage under the terms of our policy. We may become subject to product liability claims that, even if they are without merit, could result in significant legal defense costs to us. If we are held liable for claims for which we are not indemnified or for damages exceeding the limits of our insurance coverage, those claims could materially damage our business and our financial condition. Any product liability claim against us or resulting recall of our products could create significant negative publicity.

Our dependence on key executives and scientists could adversely impact the development and management of our business.

Our success depends on the ability, experience and performance of our senior management and other key personnel. If we lose one or more of the members of our senior management or other key employees, it could damage our development programs and our business. In addition, our success depends on our ability to continue to hire, train, retain and motivate skilled managerial and scientific personnel. The pool of personnel with the skill that we require is limited. Competition to hire from this limited pool is intense. We compete with numerous pharmaceutical and healthcare companies, as well as universities and non-profit research organizations in the highly competitive Boston, Massachusetts business area. Our current senior management team is employed by us under agreements that may be terminated by them for any reason upon adequate notice. There can be no assurances, therefore, that we will be able to retain our senior executives or replace them, if necessary. We do not maintain key man life insurance on any of our personnel.

If Pyxis or Delta Dental of Michigan or any of their respective affiliates enters a business in competition with ours, certain of our directors might have a conflict of interest.

We have entered into agreements with our stockholders, Pyxis and Delta Dental of Michigan (collectively, with their respective affiliates, the "Interested Parties"), allocating corporate opportunities as permitted under Section 122(17) of the Delaware General Corporation Law. These agreements, regulate and define the conduct of certain of our affairs as they may involve the Interested Parties, and our powers, rights, duties and liabilities and those of our officers and directors in connection with corporate opportunities. Except under certain circumstances, the Interested Parties have the right to engage in the same or similar activities or lines of business or have an interest in the same classes or categories of corporate opportunities as we do. If any Interested Parties or one of our directors appointed by an Interested Party acquire knowledge of a potential transaction or matter that may be a corporate opportunity for both the Interested Party and us, to the fullest extent permitted by law, the Interested Party will not have a duty to inform us about the corporate opportunity. In addition, the Interested Party will not be liable to us or to other stockholders for breach of any fiduciary duty as a stockholder of ours for not informing us of the corporate opportunity, keeping it for its own account, or referring it to another person. Additionally, except under limited circumstances, if an officer or employee of an Interested Party who is also one of our directors is offered a corporate opportunity, such opportunity shall not belong to us. In addition, we agreed that such director will have satisfied his duties to us and not be liable to us or to you in connection with such opportunity.

We may be prohibited from fully using our net operating loss carryforwards, which could affect our financial performance.

As a result of the losses incurred since inception, we have not recorded a federal income tax provision and have recorded a valuation allowance against all future tax benefits of our net operating loss carryforwards. As of December 31, 2012, we had gross net operating loss and research tax credit carryforwards of approximately $84.7 million and $1.5 million, respectively, for federal income tax purposes, expiring in varying amounts through the year 2032. As of December 31, 2012, the Company had gross NOL and research tax credit carryforwards of approximately $8.1 million and $.9 million for state income tax purposes, expiring in varying amounts through the year 2032. Our ability to use these net operating loss and credit carryforwards is subject to restrictions contained in the Internal Revenue Code which provide for limitations on our utilization of our net operating loss and credit carryforwards following a greater than 50% ownership change during the prescribed testing period. We have experienced three such ownership changes in March 2003, June 1999 and June 2012. As a result, our net operating loss carryforwards that relate to periods prior these dates are limited in utilization. The annual limitation may result in the expiration of the carryforwards prior to utilization. In addition, in order to realize the future tax benefits of our net operating loss and tax credit carryforwards, we must generate taxable income, of which there is no assurance.

Risks Related to Our Intellectual Property

If we fail to obtain patent protection for our products and preserve our trade secrets, then competitors may develop competing products and services, which will likely decrease our sales and market share.

Our success will depend on our ability to obtain patent protection in the United States and in other countries for our products and services. In addition, our success will also depend upon our ability to preserve our trade secrets and to operate without infringing upon the proprietary rights of third parties. We own rights to 11 issued U.S. patents and have a number of additional U.S. patent applications pending. We have also been granted a number of corresponding foreign patents and have a number of foreign counterparts of our U.S. patents and patent applications pending. Our patent positions, and those of other pharmaceutical and biotechnology companies, are generally uncertain and involve complex legal, scientific and factual questions. Our ability to develop and commercialize products and services depends on our ability to:

· obtain patents;

· obtain licenses to the proprietary rights of others;

· prevent others from infringing on our proprietary rights; and

· protect trade secrets.

Our pending patent applications may not result in issued patents and any issued patents may never afford meaningful protection for our technology or products or provide us with a competitive advantage. Further, others may develop competing products, which avoid legally infringing upon, or conflicting with, our patents. There is no assurance that another company will not replicate one or more of our products, and this may harm our ability to do business. In addition, competitors may challenge any patents issued to us, and these patents may subsequently be narrowed, invalidated or circumvented.

From time to time, the U.S. Supreme Court, other federal courts, the U.S. Congress or the USPTO may change the standards of patentability and any such changes could have a negative impact on our business. There have been several cases involving "gene patents" and diagnostic claims that have been considered by the U.S. Supreme Court. A suit brought by multiple plaintiffs, including the American Civil Liberties Union, or ACLU, against Myriad Genetics, or Myriad, and the USPTO, could impact biotechnology and diagnostic patents. That case involves certain of Myriad's U.S. patents related to the breast cancer susceptibility genes BRCA1 and BRCA2. The Federal Circuit issued a written decision on July 29, 2011 that reversed the decision of the U.S. District Court for the Southern District of New York that Myriad's composition claims to "isolated" DNA molecules cover unpatentable subject matter. The Federal Circuit court instead held that the breast cancer genes are patentable subject matter. Subsequently, on March 20, 2012, the Supreme Court issued a decision in *Mayo Collaborative v. Prometheus Laboratories*, or Prometheus, a case involving patent claims directed to optimizing the amount of drug administered to a specific patient. According to that decision, Prometheus' claims failed to add enough inventive content to the underlying correlations to allow the processes they describe to qualify as patent-eligible processes that apply natural laws. The Supreme Court subsequently granted *certiorari* in the Myriad case, vacated the judgment, and remanded the case back to the Federal Circuit for further consideration in light of their decision in the Prometheus case. The Federal Circuit heard oral arguments on July 20, 2012, and issued a decision on August 16, 2012. The Federal Circuit reaffirmed its earlier decision and held that composition of matter claims directed to isolated nucleic acids are patent-eligible subject matter, but that method claims consisting of only abstract mental processes are not patent-eligible. On September 25, 2012, the ACLU filed a petition for a *writ of certiorari* asking the Supreme Court to review the Federal Circuit's decision with respect to the composition of matter claims. On November 30, 2012, the Supreme Court granted the petition and agreed to review the case. On June 13, 2013, the Supreme Court issued a decision in the Myriad case. According to the decision, claims directed to genomic DNA cover unpatentable subject matter. However, claims directed to cDNA are patent eligible subject matter.

On July 3, 2012, the USPTO issued a memorandum to patent examiners providing guidelines for examining process claims for patent eligibility in view of the Supreme Court decision in Prometheus. The guidance indicates that claims directed to a law of nature, a natural phenomenon, or an abstract idea that do not meet the eligibility requirements should be rejected as non-statutory subject matter. We cannot assure you that our patent portfolio will not be negatively impacted by the decision described above, rulings in other cases or changes in guidance or procedures issued by the USPTO.

Congress directed the USPTO to study effective ways to provide independent, confirming genetic diagnostic test activity where gene patents and exclusive licensing for primary genetic diagnostic tests exist. This study will examine the impact that independent second opinion testing has on providing medical care to patients; the effect that providing independent second opinion genetic diagnostic testing would have on the existing patent and license holders of an exclusive genetic test; the impact of current practices on testing results and performance; and the role of insurance coverage on the provision of genetic diagnostic tests. The USPTO was directed to report the findings of the study to Congress and provide recommendations for establishing the availability of independent confirming genetic diagnostic test activity by June 16, 2012. On August 28, 2012, the Department of Commerce sent a letter to the House and Senate Judiciary Committee leadership updating them on the status of the genetic testing report. The letter stated in part: "Given the complexity and diversity of the opinions, comments, and suggestions provided by interested parties, and the important policy considerations involved, we believe that further review, discussion, and analysis are required before a final report can be submitted to Congress." The USPTO issued a Request for Comments and Notice of Public Hearing on Genetic Diagnostic Testing on January 25, 2012, and held additional public hearings in February and

March 2013. It is unclear whether the results of this study will be acted upon by the USPTO or result in Congressional efforts to change the law or process in a manner that could negatively impact our present or future patent portfolio.

There can be no assurance that the Supreme Court's decision in either the Myriad or Promethes case will not have a negative impact gene or diagnostic patents generally or the ability of biotechnology and diagnostic companies to obtain or enforce their patents in the future. Such negative decisions by the Supreme Court could have a material adverse effect on our existing patent portfolio and our ability to protect and enforce our intellectual property in the future.

We also rely on trade secrets and proprietary know-how that we seek to protect, in part, with confidentiality agreements. The third parties we contract with may breach these agreements, and we may not have adequate remedies for any breach. If they do not protect our rights, third parties could use our technology, and our ability to compete in the market would be reduced. We also realize that our trade secrets may become known through other means not currently foreseen by us. Our competitors may discover or independently develop our trade secrets.

Third parties may own or control patents or patent applications and require us to seek licenses, which could increase our costs or prevent us from developing or marketing our products or services.

We may not have rights under patents or patent applications that are related to our current or proposed products. Third parties may own or control these patents and patent applications in the United States and abroad. Therefore, in some cases, to develop or sell any proposed products or services with patent rights controlled by third parties, our collaborators or ourselves may seek, or may be required to seek, licenses under third-party patents and patent applications. If this occurs, we may have to pay license fees, royalties or both, to the licensor. If licenses are not available to us on acceptable terms, our collaborators or we may be prohibited from developing or selling our products or services.

Risks Related to Development, Clinical Testing and Regulatory Approval of Our Tests

Any tests that may be developed by us may be subject to regulatory clearance or approval, which can be lengthy, costly and burdensome.

Our currently marketed tests were launched as laboratory developed tests, or LDTs, performed in our CLIA-certified clinical laboratory operating in Waltham, Massachusetts. We expect that our future LDTs will be launched as well at our CLIA-certified laboratory. Although FDA has historically exercised enforcement discretion with respect to LDTs, meaning that such tests generally have not been subject to FDA regulatory requirements for in vitro diagnostic devices, the Agency's regulatory approach to LDTs is in a period of transition. FDA officials have stated that direct-to-consumer (DTC) genetic tests that make medical claims will no longer be subject to enforcement discretion. FDA's letter to the Company in July 2010 is consistent with this change in Agency position. However, FDA has not stated what specific requirements will apply to LDTs sold DTC and we have not received any feedback from FDA regarding the plan we submitted in January 2011. FDA convened an advisory panel in March 2011 to make recommendations regarding oversight of DTC genetic tests. Following the meeting, the director of OIVD stated that FDA would likely need to take a case-by-case approach with respect to which types of genetic tests could be offered by DTC. We are uncertain as to what, if any, regulatory requirements may apply to our tests in the future. We cannot provide any assurance that FDA regulation, including pre-market review or approval, will not be required in the future, or that our tests will be permitted to be offered DTC.

If FDA requires us to make a premarket submission, such as a 510k premarket notification or a premarket approval application, either as a condition of continuing to market our tests or bringing future tests to market, our business could be negatively impacted. Requiring prior FDA clearance or approval could be lengthy, costly and burdensome. In addition, depending upon FDA's response to a submission we may be required to stop selling our tests, revise our tests significantly, or delay introduction of new tests. Additionally, if our tests become subject to more active regulation as medical devices by FDA, we would be required to comply with other regulatory requirements, including facility registration, device listing, adverse event reporting, and good manufacturing practices. We would also be subject to penalties, including seizure and injunction, for noncompliance with FDA requirements. Complying with FDA requirements could add additional costs and burdens to our operations.

We are subject to government regulation which may significantly increase our costs and delay introduction of our products.

We are subject to a variety of federal and state legal requirements including CLIA, the FD&C Act, state clinical laboratory licensure laws and implementing regulations. The growth of our business may increase the potential of being found in violation of these laws. Our risk of being found in violation of these laws and regulations is further increased by the fact that the technologies at issue are new and the applicability of statutory and regulatory provisions to these technologies has not been fully developed, implemented, or subjected to judicial review, and the statutory and regulatory provisions themselves are open to a variety of interpretations. Any action brought against us, or any business partners, for violation of these laws or regulations, even if we or they successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. If their or our operations are found to be in violation of any of these laws and regulations, they or we may be subject to any applicable penalty associated with the violation, including civil and criminal penalties, damages and fines, and they or we could be required to curtail or cease operations. Any of the foregoing consequences could seriously harm our business and our financial results.

If we do not comply with governmental regulations applicable to our CLIA-certified laboratory, we may not be able to continue our operations.

The establishment and operation of our laboratory is subject to regulation by numerous federal, state and local governmental authorities in the United States. The laboratory holds a CLIA certificate of compliance and is licensed by the Commonwealth of Massachusetts, and other states as required, which enables us to provide testing services to residents of most other states. Failure to comply with state regulations or changes in state regulatory schemes, could result in a substantial curtailment or even prohibition of the operations of our laboratory and could have a material adverse effect on our business. CLIA is a federal law that regulates clinical laboratories that perform testing on human specimens for the purpose of providing information for the diagnosis, prevention or treatment of disease. To renew CLIA certification, laboratories are subject to survey and inspection every two years. Moreover, CLIA inspectors may make unannounced inspections of these laboratories. If we were to lose our CLIA certification or our state licenses, whether as a result of a revocation, suspension or limitation, we would no longer be able to continue our testing operations which would have a material adverse effect on our business.

Tests based on our technology may require clinical trial testing, which can be lengthy, costly and burdensome.

If the FDA decides to require pre-market clearance or approval of LDT's, we may be required to perform clinical trials prior to submitting a marketing application. If we are required to conduct clinical trials, whether using prospectively acquired tissue samples or archival samples, delays in the commencement or completion of clinical testing could significantly increase development costs and delay commercialization. The commencement of clinical trials may be delayed due to insufficient patient enrollment, which is a function of many factors, including the size of the patient

population and the nature of the disease or condition being studied.

Future therapeutic collaborators, if any, may be unable to obtain regulatory approval of any therapeutic product that they may develop.

If, in the future, we enter into any collaborations relating to the use of our technology in the development of therapeutic products, any therapeutic products that our collaborators may develop will be subject to extensive governmental regulations relating to development, clinical trials, manufacturing and commercialization. Rigorous preclinical testing and clinical trials and an extensive regulatory review process are required to be successfully completed in the United States and in many foreign jurisdictions before a new therapeutic product can be sold. Satisfaction of these and other regulatory requirements is costly, time consuming, uncertain and subject to unanticipated delays. The time required to obtain FDA and other approvals for therapeutic products is unpredictable but typically exceeds several years. It is possible that none of the therapeutic products our collaborators may develop will obtain the appropriate regulatory approvals necessary for us or our collaborators to begin selling them.

Furthermore, any regulatory approval to market a therapeutic product may be subject to limitations on the indicated uses. These limitations may limit the size of the market for the therapeutic product. Any therapeutic product that our collaborators may develop will also be subject to numerous foreign regulatory requirements governing the conduct of clinical trials, manufacturing and marketing authorization, pricing and third-party reimbursement. The foreign regulatory approval process includes all of the risks associated with FDA approval described above as well as risks attributable to the satisfaction of local regulations in foreign jurisdictions. Therefore, approval by the FDA of a therapeutic product does not assure approval by regulatory authorities outside the United States or vice versa.

If we fail to comply with regulatory requirements, we could be subject to enforcement actions, which could affect our ability to market and sell our tests and may harm our reputation.

If we in the future fail to comply with applicable federal, state or foreign laws or regulations, we could be subject to enforcement actions, which could affect the ability to successfully develop, market and sell our tests and could harm our reputation and lead to reduced acceptance of such tests or products by the market. These enforcement actions could include:

- warning letters;
- recalls, public notification or medical device safety alerts;
- restrictions on, or prohibitions against, marketing such tests or products;
- restrictions on importation of such tests or products;
- suspension of review or refusal to approve new or pending applications;
- withdrawal of product approvals;
- product seizures;
- injunctions;
- civil penalties, including monetary fines; and
- criminal penalties.

If we do not comply with laws regulating the protection of the environment and health and human safety, our business could be adversely affected.

Our research and development activities involve the use of hazardous and chemicals materials, and we maintain quantities of various flammable and toxic chemicals in our facilities. We believe our procedures for storing, handling and disposing these materials in our facilities comply with the relevant local and Federal guidelines. Although we believe that our safety procedures for handling and disposing of these materials comply with the standards mandated by applicable regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. If an accident occurs, we could be held liable for resulting damages, which could be substantial. We are also subject to numerous environmental, health and workplace safety laws and regulations, including those governing laboratory procedures, exposure to blood-borne pathogens and the handling of biohazardous materials. We may incur substantial costs to comply with, and substantial fines or penalties if we violate, any of these laws or regulations .

Risks Related to Our Common Stock

We were delisted from the NYSE Amex in 2010 resulting in a more limited market for our common stock.

On December 23, 2008, we were notified of our failure to comply with the NYSE Amex, hereinafter referred to as the Exchange, continued listing standards under section 1003 of the Exchange's Company Guide. As a result, our common stock was suspended from the Exchange effective with the open of business on August 16, 2010 and began trading on the OTCQB™ under the symbol ILIU. The delisting by the Exchange could hurt our investors by reducing the liquidity and market price of our common stock. Additionally, the delisting could negatively affect us by reducing the number of investors willing to hold or acquire our common stock, which could negatively affect our ability to raise capital.

Our stock price has been and is likely to continue to be volatile and the market price of our common stock may drop.

In the two years ended December 31, 2012 and through March 31, 2013, our stock price has fluctuated from a low of $0.17 to a high of $0.55. Furthermore, the stock market has experienced significant volatility. The volatility of stocks for companies in our industry often does not relate to the operating performance of the companies represented by the stock. Some of the factors that may cause the market price of our common stock to fluctuate include:

- the timing and commercial success of the launch of Reimbursed Dental Plans our PST® test;
- demand for and acceptance of our products;
- our ability to develop new relationships and maintain and enhance existing relationships with strategic partners;
- regulatory developments or enforcement in the United States and foreign countries;
- developments or disputes concerning patents or other proprietary rights;
- introduction of technological innovations or new products or services by us or our competitors;
- failure to secure adequate capital to fund our operations, or the issuance of equity securities at prices below fair market price;
- changes in estimates or recommendations by securities analysts, if any cover our common stock;
- litigation;
- future sales of our common stock;
- general market conditions;
- economic and other external factors or other disasters or crises;

· period-to-period fluctuations in our financial results; and

· overall fluctuations in U.S. equity markets.

These and other external factors may cause the market price and demand for our common stock to fluctuate substantially, which may limit or prevent investors from readily selling their shares of common stock and may otherwise negatively affect the liquidity of our common stock. In addition, in the past, when the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our stockholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit. Such a lawsuit could also divert the time and attention of our management.

Our management and their affiliates own a significant percentage of our stock and will be able to exercise significant influence over matters subject to stockholder approval.

As of July 1, 2013, our executive officers, directors and their respective affiliates, beneficially owned approximately 62.4% of our outstanding common stock. Accordingly, these stockholders will be able to exert a significant degree of influence over our management and affairs and over matters requiring stockholder approval, including the election of our board of directors and approval of significant corporate transactions. This concentration of ownership could have the effect of entrenching our management and/or the board of directors, delaying or preventing a change in our control or otherwise discouraging a potential acquirer from attempting to obtain control of us, which in turn could have a material and adverse effect on the fair market value of our common stock.

We do not expect to pay dividends for the foreseeable future and you should not expect to receive any funds without selling your shares of common stock, which you may only be able to do at a loss.

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain any earnings for use in the operation and expansion of our business and do not anticipate paying any cash dividends on our common stock in the foreseeable future. Therefore, you should not expect to receive any funds without selling your shares, which you may only be able to do at a loss.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or Securities Act, and Section 21E of the Securities Exchange Act of 1934, or Exchange Act, regarding our strategy, future, operations, future financial position, future revenues, projected costs, and plans and objectives of management. You can identify these forward-looking statements by their use of words such as “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “plan,” “project,” “target,” “potential,” “will,” “would,” “could,” “should,” “continue,” expressions. You also can identify them by the fact that they do not relate strictly to historical or current facts. There are a number of important risks and uncertainties that could cause our actual results to differ materially from those indicated by forward-looking statements. For a description of these risks and uncertainties, please refer to the section entitled “Risk Factors,” as well as any other risk factors and cautionary statements we include in this prospectus in the future. While we may elect to update forward-looking statements wherever they appear in this prospectus, we do not assume, and specifically disclaim, any obligation to do so, whether as a result of new information, future events or otherwise.

USE OF PROCEEDS

The shares of common stock being offered by this prospectus are solely for the account of the selling stockholders. We will not receive any proceeds from the sale of these shares by the selling stockholders. We may, however, receive the proceeds of any cash exercises of Warrants which, if received, would be used by us for working capital purposes.

MARKET FOR OUR COMMON STOCK

Market Information

Our common stock currently trades under the symbol “ILIU” on the OTCQB. The following table sets forth, for the periods indicated, the high and low sales prices for our common stock, as reported by the OTCQB.

	High	Low
2013:		
First Quarter	$ 0.52	$ 0.23
Second Quarter	$ 0.55	$ 0.345
Third Quarter (through July 25, 2013)	$ 0.50	$ 0.35
2012:		
First Quarter	$ 0.35	$ 0.17
Second Quarter	$ 0.33	$ 0.23
Third Quarter	$ 0.55	$ 0.28
Fourth Quarter	$ 0.46	$ 0.26
2011:		
First Quarter	$ 0.41	$ 0.27
Second Quarter	$ 0.47	$ 0.31
Third Quarter	$ 0.49	$ 0.20
Fourth Quarter	$ 0.35	$ 0.17

Stockholders

As of July 1, 2013, there were approximately 125 stockholders of record and according to our estimate, approximately 3,300 beneficial owners of our common stock.

DIVIDEND POLICY

We have never paid dividends to our stockholders. We currently intend to retain all available funds and any future earnings to fund the development and expansion of our business, and we do not anticipate paying any cash dividends in the foreseeable future.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF

FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of our financial condition and results of operations should be read in conjunction with our Financial Statements and the notes thereto included elsewhere in this prospectus.

General Overview and Trends

Interleukin Genetics, Inc. is a personalized health company that develops specific, health area focused, unique genetic tests. Our overall mission is to provide test products that can help individuals improve or maintain their health through preventive measures or lifestyle changes. Our vision is to use the science of applied genetics to empower individuals and physicians to better understand the set of actions and steps necessary to guide the best lifestyle and treatment options. We believe that the science of applied genetics can help companies provide improved services to their consumers, and assist in improving outcomes in drug development and use.

During the year ended December 31, 2012, we continued to focus our resources on conducting, finalizing and commercializing our large PST® validation study (referred to herein as the "PDPS") with the University of Michigan and Renaissance Health Services Corporation (RHSC) and the sales of our Inherent Health® brand of genetic tests and related programs. The objective of the PDPS is to improve dental care by identifying and using certain risk factors to set preventative treatment regimens. On March 28, 2012, we jointly announced with the University of Michigan that the PDPS had been fully enrolled with approximately 5,400 consenting adults and on August 6, 2012, we announced that we had received top line results from the PDPS. These results indicate that in Low Risk patients, there was no significant difference between two dental preventive visits per year and one preventive visit per year in the percentage of patients who had tooth extractions over the 16 year monitoring period; 13.8% versus 16.4%, respectively. In addition, these results indicate that in High Risk patients, two preventive visits per year significantly reduced the percentage of patients who had extractions over a 16 year monitoring period compared to one preventive visit per year; 16.9% vs. 22.1%. There was also a positive relationship between number of risk factors and the percentage of patients with extractions. Low Risk patients (47% of the study population) were defined as non-smokers, genetically negative per our PST® test and no history of diabetes. High Risk patients were defined as having one or more risk factors, PST® positive, diabetes or smoking.

In 2013, we have continued to focus our resources on commercializing our PST® test following completion of the PDPS and on the sales of our Inherent Health® brand of genetic tests and related programs. On February 25, 2013, we entered into a Preferred Participation Agreement with RHSC, for itself and on behalf of certain of its affiliates and subsidiaries. Pursuant to this agreement, affiliates of RHSC have agreed to reimburse us a fixed price for each PST® genetic test that we process for a customer of affiliates of RHSC. In addition, if during the term of the agreement we offer the PST® test to any other person or party for a lower price, such lower price shall then be applicable to tests

processed for a customer of such affiliates of RHSC for the remainder of the term of the agreement. The pricing arrangement is subject to the satisfaction of certain milestones, including that (1) within a specified timeframe, RHSC affiliates must develop and offer dental benefit plans for which a significant portion of such affiliate's clients are eligible that provides for use of the PST® test and reimbursement of the test at the agreed upon price (each such plan, hereinafter referred to as a “Reimbursed Dental Plan”) and (2) prior to a specified date, RHSC affiliates shall have sold policies for Reimbursed Dental Plans for the year beginning January 1, 2014. We have agreed that for a one year period beginning on the date on which RHSC affiliates first offer a Reimbursed Dental Plan, we will make the PST® test available solely to RHSC affiliates and not to any other third party or person. This agreement has a term of three years beginning on February 25, 2013, but may be terminated earlier (1) upon the mutual written agreement of us and RHSC, (2) if either party becomes the subject of bankruptcy, insolvency, liquidation or other similar proceedings, or (3) in the event of an uncured breach of the Agreement by either party. We expect RHSC to begin offering dental plans that incorporate our genetic PST® test for plan years beginning January 1, 2014.

The timing of any revenues that we may receive under this agreement is dependent upon the timing of the offering of Reimbursed Dental Plans, which timing is very uncertain at this time. We do not expect to receive any significant revenues under this agreement until the first quarter of 2014 at the earliest, and the timing of any such revenues may be substantially later. See "Risk Factors - The timing and amount of revenues, if any, that we may receive pursuant to our Preferred Participation Agreement with RHSC and its affiliates is uncertain" for a discussion of the risks associated with the timing and amount of any revenues we may receive under this agreement.

Our Inherent Health® brand of genetic tests includes the first-of-its-kind test for weight management that identifies an individual's genetic tendencies for weight gain related to either fat or carbohydrates in the diet. The Inherent Health® brand also offers customers a full suite of affordable, easy-to-use and meaningful genetic tests in heart health, bone health and nutritional needs. In addition, we launched additional products under the name Wellness Select that allows our e-commerce customers to purchase any combination of our Inherent Health® genetic tests at a discounted price.

Sales of our genetic tests through our e-commerce web site decreased by $677,000 during the year ended December 31, 2012, as compared to the prior year caused primarily by a decrease in the sales of our Weight Management Genetic Test through Amway Global. In September 2012, Access Business Group LLC, an affiliate of Alticor, Inc., placed a purchase order totaling $1.0 million consisting of weight management kits. The kits are included as part of a promotional bundle of products that Amway is now selling to their Individual Business Owners (IBOs). The order was shipped in two shipments in December 2012 and February 2013 and the account receivable was fully paid as of March 31, 2013. Cash received from the order will remain in deferred revenue until the tests are returned and processed. We are now processing tests from the program in our laboratory. The program has an end date of December 31, 2013, and we expect to recognize revenue from the program throughout 2013.

Our research and development expenses are focused on our own development and commercialization efforts related primarily to a new version of our PST® test and Osteoarthritis genetic test. We are also focusing on seeking potential commercial partners to validate our technology within their specific business model as a collaboration with little or no cost to us. This is different than in prior years when our development focus was concentrated in research and development to bring new test configurations to market.

On May 17, 2013, we entered into a Common Stock Purchase Agreement (the "Purchase Agreement") with various accredited investors (the "Purchasers"), pursuant to which we sold securities to the Purchasers in a private placement transaction (the "Private Placement"). In the Private Placement, we sold an aggregate of 43,715,847 shares of our common stock at a price of $0.2745 per share for gross proceeds of $12,000,000. The Purchasers also received warrants to purchase up to an aggregate of 32,786,885 shares of common stock an exercise price of $0.2745 per share (the "Warrants"). The Warrants have a term of seven years from the date they become exercisable. Sixty-three percent of the shares issuable pursuant to the Warrants were exercisable immediately upon issuance, and the remaining 37% become exercisable following the Share Authorization Increase (as defined below).

In addition, pursuant to the Purchase Agreement, each Purchaser has the right, at any time and from time to time following the date of shareholder approval of an amendment to our Certificate of Incorporation to increase the number of authorized shares of common stock from 150,000,000 shares to 300,000,000 shares (the "Share Authorization Increase") and on or before June 30, 2014 (the "Expiration Date"), to purchase at one or more subsequent closings its pro rata share of up to an aggregate of 18,214,936 additional shares of common stock at a purchase price of $0.2745 per share and warrants to purchase up to an aggregate of 13,661,201 shares of common stock at an exercise price of $0.2745 per share (the "Additional Investment"). If, prior to the Expiration Date, Purchasers have not purchased their entire pro rata share of the Additional Investment, Purchasers who have purchased their entire pro rata share of the Additional Investment, will be entitled to purchase the unsold portion of the Additional Investment.

Immediately prior to the closing of the Private Placement, and in accordance with the terms of the Purchase Agreement: (i) Pyxis Innovations Inc. ("Pyxis"), the sole holder of our outstanding Series A-1 Convertible Preferred Stock converted all 5,000,000 shares of outstanding Series A-1 stock into 28,160,200 shares of our common stock (the "Series A-1 Conversion"); (ii) Pyxis, the sole holder of our outstanding convertible debt, converted all of the principal amount of debt outstanding ($14,316,255) into 2,521,222 shares of our common stock (the "Debt Conversion"); and (iii) Delta Dental Plan of Michigan, Inc. ("DDMI"), the sole holder of our outstanding Series B Convertible Preferred Stock converted all 500,000 outstanding shares of Series B stock into 10,928,961 shares of common stock (the "Series B Conversion").

In the genetic test business, competition is in flux and the markets and customer base are not well established. Adoption of new technologies by consumers requires substantial market development and customer education. Historically, we have focused on our relationship with our primary customer, Alticor, a significant direct marketing company, in order to assist us in developing the market for our products and educating our potential customers. Our challenge in 2013 and beyond will be to develop the market for our other personalized health products, in particular our PST® test. We continue to allocate considerable resources to commercialization of our PST® and Inherent Health® brands of genetic tests. Due to the early stage of these initiatives, we cannot predict with certainty fluctuations we may experience in our genetic test revenues or whether revenues derived from the Preferred Participation Agreement with RHSC and its affiliates and the Merchant Network and Channel Partner Agreement with Amway Global will ever be material or if material, will be sustained in future periods.

Results of Operations

Three Months Ended March 31, 2013 and March 31, 2012

Total revenue for the three months ended March 31, 2013 was $487,000, compared to $678,000 for the three months ended March 31, 2012. The decrease of $191,000, or 28.1%, is primarily attributable to decreased testing revenue from genetic tests processed as a result of sales of our Inherent Health® brand of genetic tests through the Amway Global sales channel. Genetic testing revenue is derived from tests sold and processed, which is driven by consumer demand. Deferred revenue, which consists of genetic tests sold and not yet processed, increased $422,000 to $2.1 million at March 31, 2013 as compared to $1.6 million on December 31, 2012.

During the three months ended March 31, 2013, 80% of our sales revenue came through our Merchant Network and Channel Partner Agreement with Amway Global, compared to 64% during the three months ended March 31, 2012. Pursuant to this agreement, Amway Global sells our genetic tests through its e-commerce web site via a hyperlink to our e-commerce site.

Cost of revenue for the three months ended March 31, 2013 was $384,000 or 78.7% of revenue, compared to $376,000, or 55.5% of revenue, for the three months ended March 31, 2012. The increase in the cost of revenue as a percentage of revenue is primarily attributable to the higher absorbtion rate associated with fixed laboratory costs due to the decrease in revenues.

Research and development expenses were $160,000 for the three months ended March 31, 2013, compared to $446,000 for the three months ended March 31, 2012. The decrease of $286,000, or 64% is primarily attributable to decreases in compensation, consulting and clinical trial costs. In the first quarter of 2013 our Chief Scientific Officer had fully transitioned to his role as Chief Executive Officer and, accordingly, related compensation costs were

classified as part of selling, general and administrative expenses in the 2013 period whereas such costs had previously been classified as research and development expenses.

Selling, general and administrative expenses were $1.0 million for the three months ended March 31, 2013, compared to $1.1 million for the three months ended March 31, 2012. The decrease of $0.1 million, or 11.8% is primarily attributable to decreased patent related legal fees and corporate legal and accounting fees as well as lower sales commissions paid to Amway Global as part of our Merchant Channel and Partner Store Agreement partially offset by higher compensation and consulting expenses.

Interest expense was $114,000 for the three months ended March 31, 2013, as compared to $105,000 for the three months ended March 31, 2012. The increase in interest expense of $9,000 is attributable to higher borrowings on our credit facility with Pyxis.

Years Ended December 31, 2012 and 2011

Total revenue from operations for the year ended December 31, 2012 was $2.2 million, compared to $2.9 million for the year ended December 31, 2011. The decrease of $0.7 million, or 21.9%, is primarily attributable to decreased genetic testing revenue. Genetic testing revenue decreased to $2.2 million in the year ended December 31, 2012, compared to $2.7 million in the year ended December 31, 2011, a decrease of 21.7%. The decrease is primarily attributable to decreased sales of our Inherent Health® Brand of genetic tests through the Amway Global sales channel. In addition, in 2012 we experienced a decrease in sales of our Inherent Health® Weight Management Genetic Test to commercial customers and less media attention than in 2011 which increased sales in 2011. Genetic testing revenue is derived from tests sold and processed, which is driven by consumer demand.

During the years ended December 31, 2012 and 2011, we had one significant customer, Alticor, our principal shareholder, that accounted for approximately 66% and 68%, respectively, of our revenues from operations. During the years ended December 31, 2012 and 2011, approximately 65% and 66%, respectively, of our revenue came from sales through our Merchant Network and Channel Partner Agreement with Amway Global, an affiliate of Alticor.

Cost of revenue for the year ended December 31, 2012 was $1.3 million, or 59.4% of revenue, compared to $1.5 million, or 53.5% of revenue, for the year ended December 31, 2011. The increase in the cost of revenue as a percentage of revenue is primarily attributable to the higher absorption rate associated with fixed laboratory costs due to the decrease in revenues.

Research and development expenses were $1.3 million for the year ended December 31, 2012, compared to $1.4 million for the year ended December 31, 2011. The decrease of $0.1 million, or 4.7%, is primarily attributable to decreased consulting costs offset by increased compensation expenses as compared to the year ended December 31, 2011.

Selling, general and administrative expenses were $4.2 million for the year ended December 31, 2012, compared to $4.7 million for the year ended December 31, 2011. The decrease of $0.5 million, or 11.0%, is primarily attributable to decreases in sales commissions paid to Amway Global as part of our Merchant Channel and Partner Store Agreement, compensation expenses and depreciation, partially offset by increased professional fees and employee separation costs attributable to the resignation of our former Chief Executive Officer on August 23, 2012.

Interest expense was $454,000 for the year ended December 31, 2012, as compared to $367,000 for the year ended December 31, 2011. The increase in interest expense of $87,000 is primarily attributable to increased borrowings on our credit facility with Pyxis.

Liquidity and Capital Resources

As of March 31, 2013, we had cash and cash equivalents of $1.1 million, and we had an aggregate principal amount of $14,316,255 due under our credit facility with Pyxis, which was due and payable in full on March 31, 2014.

On May 17, 2013, we closed the Private Placement, pursuant to which we sold an aggregate of 43,715,847 shares of our common stock at a price of $0.2745 per share for gross proceeds of $12,000,000. The Purchasers also received Warrants to purchase up to an aggregate of 32,786,885 shares of common stock an exercise price of $0.2745 per share. The Warrants have a term of seven years from the date they become exercisable. Sixty-three percent of the

shares issuable pursuant to the Warrants were exercisable immediately upon issuance, and the remaining 37% become exercisable following the Share Authorization Increase. Net proceeds from the Private Placement were approximately $11.1 million. In addition, immediately prior to the closing of the Private Placement, Pyxis converted all $14,316,255 of the principal amount of debt outstanding under the credit facility into 2,521,222 shares of our common stock.

Cash Flows

Cash used in operations was $147,000 for the three months ended March 31, 2013, as compared to $1.0 million for the three months ended March 31, 2012. Cash used in operations is primarily impacted by operating results and changes in working capital, particularly the timing of the collection of receivables, inventory levels, receipt of orders and the timing of payments to suppliers. In the three months ended March 31, 2013, approximately $0.5 million was received as payment for Weight Management kits ordered as part of Amway's promotional product bundle incorporating our weight management genetic test. Cash received from genetic test sales which is reflected in deferred revenue until the test report is issued, increased by $422,000 to $2.1 million during the three months ended March 31, 2013.

Cash used in investing activities was $2,709 for the three months ended March 31, 2013, compared to $5,000 for the three months ended March 31, 2012. These amounts represent capital additions. We believe that based on current and projected volumes, our laboratory equipment is sufficient to process genetic tests and no additional material capital purchases will be needed in the foreseeable future.

Cash provided by financing activities was $5,289 for the three months ended March 31, 2013, compared to $7,910 for the three months ended March 31, 2012, due primarily to the exercise of stock purchases through the employee stock purchase plan.

Cash used in operations was $4.5 million for each of the years ended December 31, 2012 and 2011. Cash used in operations is primarily impacted by operating results and changes in working capital, particularly the timing of the collection of receivables, inventory levels and the timing of payments to suppliers. In 2012 cash used in operations was primarily impacted by lower operating costs associated with our genetic testing laboratory and administrative operations and lower sales of our genetic tests. In 2012 we experienced a decrease in genetic test sales resulting from less media attention related to our Weight Management Genetic Test, decreased sales to commercial customers and decreased sales within the Amway Global channel. Deferred revenue from genetic test sales increased by $0.8 million to $1.6 million during the year ended December 31, 2012. In the deferred revenue balance and accounts receivable at December 31, 2012 is a balance of $0.5 million relating to Weight Management Genetic Test kits shipped to Amway as part of a 2013 promotional sales program. The order payment was received on January 22, 2013.

Cash used in investing activities was $5,000 for the year ended December 31, 2012, compared to cash provided of $196,000 for the year ended December 31, 2011. Capital additions were $5,000 for the year ended December 31, 2012 compared to $4,000 for the year ended December 31, 2011. Capital additions primarily consisted of laboratory equipment in 2012 and computers and office equipment in 2011. We believe that based on current and projected volumes, our laboratory equipment is sufficient to process genetic tests and no additional material capital purchases will be needed in the foreseeable future. In addition, the $200,000 in other current assets at December 31, 2010 representing a receivable from Nutraceutical Corporation in connection with the sale of the Alan James Group business and assets in July 2009 was received on July 1, 2011.

Cash provided by financing activities was $4.0 million for the year ended December 31, 2012 compared to $2.0 million for the year ended December 31, 2011. In April 2012 we received $1.3 million in proceeds from the issuance of notes payable under our existing credit facility with Pyxis as compared to $2.0 million received in 2011. We have no financial covenants as part of our credit facility with Pyxis. The debt becomes due on March 31, 2014. We have borrowed the full amount of the credit facility. On June 29, 2012, we completed a financing with Delta Dental of Michigan, pursuant to which Delta Dental purchased 500,000 shares of our Series B Convertible Preferred Stock for gross proceeds of $3,000,000. Net proceeds to the Company after fees and expenses were approximately $2.7 million. We received approximately $8,800 and $33,000 from stock purchases through the employee stock purchase plan for the years ended December 31, 2012 and 2011, respectively.

Operating Capital Requirements

The amount of cash we generate from operations is currently not sufficient to continue to fund operations and grow our business. We expect that our current financial resources, including the net proceeds from the Private Placement, will be adequate to maintain our current and planned operations for at least the next 12 months. We believe our success depends on our ability to have sufficient capital and liquidity to fund operations at least until we begin to receive significant revenues under the Preferred Participation Agreement with RHSC and its affiliates. The timing of any revenues that we may receive under this agreement is dependent upon the timing of the offering of Reimbursed Dental Plans by RHSC affiliates, which timing is very uncertain at this time. We do not expect to receive any significant revenues under this agreement until the first quarter of 2014 at the earliest, and the timing of any such revenues may be substantially later.

We have taken steps to reduce our operating costs. We are sub-leasing approximately 6,000 square feet, or one-third of our total office space. The space includes offices and a laboratory that was being underutilized. Our remaining office and laboratory space is adequate for our current business needs. We are able to process high volumes of genetic tests in our current laboratory. We have reduced our cost of processing samples in our laboratory by working with our raw material vendors to make our genetic testing process more efficient resulting in lower processing costs. We have significantly reduced our research and development programs to only focus on our PST® and osteoarthritis technologies.

Until such time, if ever, that we generate revenues sufficient to fund operations, we may fund our operations by issuing common stock, debt or other securities in one or more public or private offerings, as market conditions permit, or through the incurrence of debt from commercial lenders. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our existing stockholders will be diluted, and the terms may include liquidation or other preferences that adversely affect the rights of our stockholders. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring debt, making capital expenditures or declaring dividends. There can be no assurance that additional funds will be available when we need them on terms that are acceptable to us, or at all. If adequate funds are not available to us on a timely basis, we may be required to delay, limit, reduce or cease activities or operations or enter into licenses or other arrangements with third parties on terms that may be unfavorable to us or sell, license or relinquish rights to develop or commercialize our products, technologies or intellectual property.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based upon our financial statements. The preparation of these financial statements and related disclosures in conformity with accounting principles generally accepted in the United States of America requires us to (i) make judgments, assumptions and estimates that affect the reported amounts of assets, liabilities, revenue and expenses; and (ii) disclose contingent assets and liabilities. A critical accounting estimate is an assumption that could have a material effect on our consolidated financial statements if another, also reasonable, amount were used or a change in the estimates is reasonably likely from period to period. We base our accounting estimates on historical experience and other factors that we consider reasonable under the circumstances. However, actual results may differ from these estimates. To the extent there are material differences between our estimates and the actual results, our future financial condition and results of operations will be affected. Our most critical accounting policies and estimates upon which our financial condition depends, and which involve the most complex or subjective decisions or assessments are set forth in Note 4 to our audited financial statements included in this prospectus.

Recent Accounting Pronouncements

Please see the discussion of “Recent Accounting Pronouncements” in Note 4 to our audited financial statements included in this prospectus. No new updates or other guidance issued to date by the FASB in 2013 are expected to have a material impact on our financial statements.

BUSINESS

Overview

Interleukin Genetics, Inc. is a personalized health company that develops unique genetic tests to provide information to better manage health and specific health risks. Our overall mission is to provide genetic testing services to empower individuals, physicians and dentists to better guide lifestyle and treatment options that can help individuals maintain or improve their health. We believe that our proprietary genetic tests can help our commercial distribution partners provide improved services to their customers, empower individuals to personalize their health, and assist pharmaceutical companies to improve drug development and use by identifying subpopulations that are more responsive to a therapy. Our business focuses on personalized health, by providing genetic tests with strong clinical value. Our tests are made available via marketing partners or directly to end users. We have patents covering the use of certain gene variations and specific combinations of gene variations for a number of common chronic diseases and conditions.

Until recently, scientific study of chronic health conditions has largely focused on identifying initiating factors that are causative and ways to alter or reverse the cause or condition. Common examples of altering or reversing initiating factors include calorie reduction in the case of being overweight, reducing levels of cholesterol in the case of heart disease, elimination of bacteria in the case of periodontal disease and increasing estrogen levels in the case of osteoporosis. However, it is now well established that while intiating factors are essential for disease, the mere presence of such factors does not necessarily determine whether a single individual will develop an illness, have mild or severe disease, or respond the same way as everyone else. Many common conditions arise in part as a result of how our bodies respond and interact with various environmental factors.

Our Products

Our genetic tests that are currently being commercialized are:

- *PST*® : This genetic test analyzes genetic variations associated with inflammation and identifies individuals who are at increased risk for more severe periodontal disease.
- *Weight Management Genetic Test* : This test determines whether a low fat, low carbohydrate or balanced diet may be best and whether normal or vigorous exercise is needed to most efficiently lose existing body fat. This test is marketed under our Inherent Health® brand.
- *Bone Health Genetic Test* : This test is designed to identify whether an individual is more likely to be susceptible to spine fractures and low bone mineral density associated with osteoporosis. This test is marketed under our Inherent

Health® brand.

- *Heart Health Genetic Test* : This test is designed to identify genetic predisposition to excess inflammation, which is a risk factor for heart attack. This test is marketed under our Inherent Health® brand.
- *Wellness Select Genetic Test:* This allows buyers to purchase any combination of Inherent Health® genetic tests at a discounted price. This is marketed under our Inherent Health® brand.

In February 2013, we entered into a Preferred Participation Agreement with Renaissance Health Services Corporation, or RHSC, the parent corporation of eight Delta Dental member companies operating in their eight respective states, with respect to reimbursement of our PST® test. We market our Inherent Health® brand of genetic assessment tests primarily through our Merchant Network and Channel Partner Agreement with Alticor's Amway Global Company.

In addition to the genetic tests listed above that we are currently marketing, we are also focusing our genetic test development efforts on the development of an Osteoarthritis, or OA, genetic test to identify individuals at increased risk for severe OA.

Genetic Tests

Many people have the mistaken impression that genetics dictate how an individual will look or feel and that there is nothing one can do to change the destiny set by one's genes. While it is true that some genetics have a permanent effect on a person's appearance or condition (referred to as a phenotype), the vast majority of genetic influences of one's phenotype can be modified. An active field of research in healthcare today is to better understand the interaction between our environment and our genes. The scientific community is learning more each day about the role and significance of genetic variations, such as single nucleotide polymorphisms, or SNPs, and haplotypes, on an individual's health. SNP and haplotype analysis coupled with detailed knowledge of environmental factors now is an important area of study in order to improve human health. A SNP may cause a gene to make a different amount of a protein for a given condition, change the timing of protein synthesis or make a variant form of the protein; each of these changes may lead to a discernible physiological impact. However, certain lifestyle changes can influence significantly whether a set of genes are activated or inactivated despite the variation in the gene. Thus while the propensity for physiological impact is always present for a given set of genes and their variants, whether or not the condition manifests itself is often controlled by our environment and the lifestyle choices we make.

We have focused our research, development and commercialization efforts on identifying combinations of SNP variations for which there is biological understanding for certain uses associated with inflammation or metabolic disease. We have worked with several universities including the University of Sheffield in the United Kingdom to identify several SNPs and other factors that influence the body's inflammatory response. Our scientific advisory board includes Sir Gordon Duff, one of the pioneers in the understanding of the role that genetics plays in inflammatory disease pathways. In addition, we have conducted clinical studies for various indications throughout the world involving over 22,000 individuals to demonstrate clinical utility. To date, some of our clinical research collaborations include, or have included, studies at: Stanford University; the University of North Carolina at Chapel Hill; the Mayo Clinic; Brigham & Women's Hospital (Harvard Medical School); University of California at San Francisco; University of California at San Diego; New York University Medical Center; University of Sheffield, (UK); Yonsei University Medical Center, (Korea); Tongji Medical College, (China); and Tuft's University Medical Center. We have also conducted research with the Geisinger Clinic.

Inflammation is one of the body's most basic protective mechanisms, and the understanding of the role of inflammation in disease and various other conditions has increased over the past few years. It is generally accepted that many chronic conditions begin with a challenge to the tissues of the body and that the inflammatory response system of an individual mediates the clinical manifestation. It is also now thought that SNP variations in the genes that influence the inflammatory process can have an important impact on a person's risk/trajectory of a disease for the same set of initiating events or conditions.

Typical inflammatory diseases include periodontitis and rheumatoid arthritis. In recent years, inflammation has been found to affect several other major diseases of aging that were not previously considered inflammatory diseases, including heart disease and osteoarthritis. For example, an individual who has a strong inflammatory response may be more successful in clearing a bacterial infection than an individual with a less robust inflammatory response.

However, that strong inflammatory response may actually cause that individual to be at increased risk for a more severe course in one or more of the chronic diseases that generally affect people in mid to later life, osteoporosis, osteoarthritis, and periodontal disease. Individuals' gene variations influence the severity of the risks and predispositions to these diseases.

Our Approach to Test Development

We seek to develop tests that may reduce the risk of certain chronic conditions and illnesses or offer treatment guidance for their particular conditions. In order to do so, we believe a genetic test should be useful, understandable, credible and provide actionable guidance. The action resulting from the information we seek to provide through our genetic tests could be some form of medical treatment, dietary alteration, lifestyle change, or more careful monitoring of the person's condition. Before developing a genetic test, we make it a priority to understand its market potential.

Multiple genes and complex gene interactions along with environmental factors determine the probability for an individual contracting many common diseases. We may develop a test based on our proprietary genetic markers or public markers including important SNPs we have identified if: a) clinical studies show that their effect has a critical and unique influence on the clinical expression of disease, or b) the genetic markers guide the development or use of lifestyle, preventive measures or therapeutic agents that modulate the specific actions of those genetic factors. The effects of our genetic factors must be sufficiently powerful so that these genetic markers cannot be excluded from a test panel without substantially reducing the practical clinical usefulness of the test. For example, clinical studies have shown that in patients with a history of heart disease, higher levels of inflammation (as measured by certain markers such as C-reactive protein, a transient marker for inflammation) are one predictor of many for future heart attacks. Indeed, published studies indicate that chronic underlying inflammation is a critical factor for increased heart attack risk. We believe that our proprietary genetic variations reliably identify those individuals who have a lifelong tendency to experience elevated inflammation and therefore to have higher inflammation-based risk for heart disease. Development efforts will continue to use our proprietary genetic technology as part of a broader genetic panel that predicts an individual's risk for disease as he or she ages or predicts a patient's likelihood of severe complications from disease or response to specific treatment if the individual has already been diagnosed with disease.

For each targeted clinical area that meets our criteria, we may develop one or more proprietary tests that are anchored by our intellectual property, plus additional candidate genes that have been validated and shown to be of value. Other genes that are added to a test panel may be in-licensed or may be available from the public domain. For example, our osteoporosis risk assessment panel includes multiple SNPs covered by our intellectual property, plus additional genes that have been validated as risk factors for osteoporosis. Since knowledge about the genes involved in human health will continue to evolve over many years, we may introduce test panels that initially have our proprietary genetic factors with successive versions of additional genes.

We also believe that combining, in non-obvious ways, single gene variations to create a unique or novel tool may result in new, proprietary intellectual property for us. For example, our weight management genetic test panel involves five SNPs in four genes that we combined into novel patterns. We have filed patent applications covering this product.

In the past few years, the use of haplotypes has become a standard approach to genetic risk assessment for complex diseases. Haplotypes are blocks of SNPs that are inherited together from one parent and in some cases the specific block of SNPs has functional significance beyond the biological functions attributable to the individual SNPs. The same SNP may have very different effects on gene function in different individuals depending on the haplotype context. We believe that we have expertise, experience and intellectual property related to the use of haplotypes in assessing genetic risk for complex diseases and we have filed patent applications in this area as well.

Business Strategy

Our revenue model consists of:

- sales of our Inherent Health® brand of genetic tests either directly to end users or through partnerships such as the Amway Global channel;

- sales of our Inherent Health® brand of genetic tests to commercial distribution partners such as regional weight loss centers;

- sales of our PST® genetic tests to insurance providers; and

- license fees for intellectual property used in the sale of partner genetic tests.

Our primary business focus and strategy is to continue our commercialization efforts with our PST® genetic test. In addition, we plan to continue to develop and sell tests for our own business needs under the Inherent Health® brand.

We market our Inherent Health® brand of genetic assessment tests primarily through our Merchant Network and Channel Partner Agreement with Alticor's Amway Global Company. Under this agreement, Amway Global's independent business owners, or IBOs, are able to purchase the Inherent Health® brand of genetic tests via a hyperlink from the Amway Global website to the Inherent Health® website. We believe our proprietary genetic test brands supports the efforts of Amway Global to develop personalized consumer products for their IBOs' customers. Sales with Amway Global through this business arrangement began in December 2009.

Our Products and Product Development Pipeline

We are focused on commercializing our existing genetic tests, primarily PST®, and less on developing additional genetic tests. Our plan is to develop and commercialize tests that (1) identify healthy individuals who have a higher probability of increased risk for early or more severe health risks, (2) allow for an individual to understand which lifestyles will be best suited for his or her needs and (3) may be used in patients who have already been diagnosed with a specific disease to identify those patients who are more likely to develop severe disease complications and to guide better treatment.

Genetic Test for Risk of Periodontal Disease

Periodontitis is a chronic inflammatory disease initiated by specific bacteria that activate host mechanisms destroying the bone and connective tissues that support the teeth. Between 8% and 13% of the worldwide adult population exhibit severe generalized periodontitis, with many more having clinical signs of moderate disease. Substantial data support the current concept that specific bacteria are essential to initiation and progression of chronic periodontitis, but host modifiers such as smoking, diabetes, and genetic influences determine the rate of progression and disease severity. Interleukin-1 (IL-1) is well-established as one of the critical regulators of periodontal disease, and studies in non-human primates have shown that drugs specifically blocking IL-1 alone or IL-1 plus TNFa dramatically and significantly reduce tissue destruction even when the bacterial challenge is not reduced. Current preventative treatments for gum disease are more routine cleanings and good oral hygiene.

There are nearly 175 million individuals covered by dental insurance in the U.S. Most typical insurance plans now reimburse for two cleanings per year per individual. Many plans cover more cleanings for individuals already diagnosed with severe periodontal disease. However the current system of prevention is a “one size fits all model,” and there is little evidence to support two visits per year for everyone. Some individuals could need 3-4 preventive visits per year and many people could need only one or potentially fewer cleanings. Our belief is that there is a need for a greater optimization or preventative dental care to improve outcomes and reduce long term oral healthcare expenses.

PST® is a genetic test that analyzes genetic variations associated with inflammation and identifies individuals who are at increased risk for more severe periodontal disease. The PST® genetic test identifies specific polymorphisms (genetic variations) in genes that regulate the production of interleukin cytokines. Higher gingival levels of these proteins are associated with destruction of soft tissue attachment and bone, and increased severity of periodontitis in certain patient populations. Results from several clinical studies indicate that certain inflammatory cytokine levels in the gingival crevicular fluid were significantly higher in PST® positive patients than in patients who were PST® negative. PST® testing need only be done once in a lifetime and identifies “at risk” patients early on to enable targeted treatment. This objective information allows the dentist and hygienist to better guide treatment to reduce complications and costs associated with more severe periodontitis. The test also helps to establish long-term patient relationships based on the patient’s genetic predisposition.

In August of 2010, we signed an agreement with the University of Michigan and Renaissance Health Services Corporation, or RHSC, to conduct a clinical study, using a large dental claims database, on risk factors predictive of periodontal disease progression to tooth loss using our PST® genetic test. This study, which we refer to herein as the PDPS, was led by Dr. William Giannobile, Director of the Michigan Center for Oral Health Research, or MCOHR, at the University of Michigan School of Dentistry. The PDPS was funded by RHSC, which is the parent corporation of eight Delta Dental member companies operating in their eight respective states, with approximately 8 million covered lives. The PDPS evaluated whether a second annual cleaning is necessary for the prevention of tooth loss and periodontal disease in low risk individuals, defined as nonsmoking, PST® negative and without diabetes. The PDPS was also designed to determine if high risk individuals need more prevention. On March 28, 2012, we jointly announced with the University of Michigan that the PDPS had been fully enrolled with approximately 5,400 consenting adults and on August 6, 2012, we announced that we had received top line results from the PDPS. These results indicate that in Low Risk patients, there was no significant difference between two dental preventive visits per year and one preventive visit per year in the percentage of patients who had tooth extractions over the 16 year monitoring period; 13.8% versus 16.4% (p=.092 n.s.). In addition, these results indicate that in High Risk patients, two preventive visits per year significantly reduced the percentage of patients who had extractions over a 16 year monitoring period compared to one preventive visit per year; 16.9% vs. 22.1% (p=0.002). There was also a positive relationship between number of risk factors and the percentage of patients with extractions (p<0.001). Low Risk patients (47% of the study population) were defined as non-smokers, genetically negative per our PST® test and no history of diabetes. High Risk patients were defined as having one or more risk factors, PST® positive, diabetes or smoking. The University of Michigan was solely responsible for the study data analysis.

On February 25, 2013, we entered into a Preferred Participation Agreement with RHSC, for itself and on behalf of certain of its affiliates and subsidiaries. Pursuant to this agreement, affiliates of RHSC have agreed to reimburse us a fixed price for each PST® genetic test that we process for a customer of affiliates of RHSC. In addition, if during the term of the agreement we offer the PST® test to any other person or party for a lower price, such lower price shall then be applicable to tests processed for a customer of such affiliates of RHSC for the remainder of the term of the agreement. The pricing arrangement is subject to the satisfaction of certain milestones, including that (1) within a specified timeframe, RHSC affiliates must develop and offer dental benefit plans for which a significant portion of such affiliate's clients are eligible that provides for use of the PST® test and reimbursement of the test at the agreed upon price (each such plan, hereinafter referred to as a "Reimbursed Dental Plan") and (2) prior to a specified date, RHSC affiliates shall have sold policies for Reimbursed Dental Plans for the year beginning January 1, 2014. We have agreed that for a one year period beginning on the date on which RHSC affiliates first offer a Reimbursed Dental Plan, we will make the PST® test available solely to RHSC affiliates and not to any other third party or person. This agreement has a term of three years beginning on February 25, 2013, but may be terminated earlier (1) upon the mutual written agreement of us and RHSC, (2) if either party becomes the subject of bankruptcy, insolvency, liquidation or other similar proceedings, or (3) in the event of an uncured breach of the Agreement by either party.

The timing of any revenues that we may receive under this agreement is dependent upon the timing of the offering of Reimbursed Dental Plans, which timing is very uncertain at this time. We do not expect to receive any significant revenues under this agreement until the first quarter of 2014 at the earliest, and the timing of any such revenues may be substantially later. See "Risk Factors - Risks Related to Our Business, Our Financial Results and Need for Financing - The timing and amount of revenues, if any, that we may receive pursuant to our Preferred Participation Agreement with RHSC and its affiliates is uncertain" for a discussion of the risks associated with the timing and amount of any revenues we may receive under this agreement.

For certain ethnic populations the frequency of the risk allele is low in the current PST® test. A new revised PST® genetic test is predictive of severe disease and tooth loss for all ethnic populations. On November 1, 2011, we initiated two clinical studies to demonstrate the utility of the test in the ethnic Chinese population. The programs are being conducted in collaboration with Kaohsiung Medical University and Shanghai Stomatological Disease Center.

Inherent Health® Brand of Genetic Tests

Weight Management Genetic Test

On any given day one in three adult women and one out of four adult men in the U.S. are dieting. This is a total of approximately 63 million individuals. The diet market can be broken down into four levels of dieters. The majority of individuals dieting are in do-it-yourself programs (55 million) with the remaining majority distributed through various national mass market retailers such as Jenny Craig, Weight Watchers, Nutrisystems, medifast (approximately 5 million). A small category of programs are led by regional, boutique groups or dieticians (1 to 2 million) such as the

Canyon Ranch and finally the remainder those in most need are being medically treated (~200,000) with the majority undergoing bariatric surgery or lapbanding. Several estimates have been published for the total number of weight related services and specialty products being provided in the U.S. Estimated annual expenditures range from $40 to $50 billion in the U.S. with the majority of these costs being paid out of pocket by individuals.

Our *Weight Management Genetic Test* helps take the guesswork out of finding an effective diet and exercise solution by revealing actionable steps to achieve weight goals based on genetics. The test determines whether a low fat, low carbohydrate or balanced diet may be best and whether normal or vigorous exercise is needed to most efficiently lose existing body fat. The test provides new information beyond traditional assessments, so that nutritional intake and fitness routines can be tailored for improved, sustainable results. This test identifies five SNPs in four human genes: fatty acid binding protein 2 (FABP2); adrenergic receptor beta 2 (ADRB2 –two variations); adrenergic receptor beta 3 (ADRB3); and peroxisome proliferator-activated receptor gamma (PPAR-). These markers are involved in certain physiological pathways relating to body weight. Certain patterns of markers are associated with differential response to certain diet and exercise regimens.

We have conducted a number of studies that demonstrate a gene-diet interaction based on the multi-locus patterns noted above. The first study, completed in 2010, involved subjects who originally participated in Stanford University's A TO Z weight loss study. Individuals from the A TO Z study were contacted to participate in this retrospective genotype-diet interaction study. In the original study, 311 overweight/obese (body mass index, 27-40 kg/m2), nondiabetic, premenopausal, generally healthy women were randomly assigned for 12 months to either the Atkins-like (very low carbohydrate), Zone-like (low carbohydrate), LEARN-like (balanced), or Ornish-like (low fat) diets for the primary purpose of losing weight. The extensive data collected in that study included dietary intake assessment (three unannounced 24-hour recalls for each time point administered by a dietitian and analyzed using NDS-R, University of Minnesota), anthropometric measures including weight, and related physiological variables, all collected at baseline, two, six, and 12 months.

Although Stanford University had retained plasma samples from the original A TO Z study, the Institutional Review Board (IRB) reviewing the project first requested that we recruit and collect DNA under informed consent. Recruitment first began in August 2008 and ended in February 2009. A TO Z study participants eligible for inclusion in the study were those who provided both consent for the current study as well as a sufficient sample of DNA for genotyping (N=138). Those who completed the full 12-month protocol of the original A TO Z study totaled 121. The first set of analysis (N=138) showed a diet-gene interaction as determined by the test's pattern assignments. As a result of promising preliminary results from the genetic analysis of this subset of subjects who participated in the A TO Z study, our research collaborators at Stanford University received IRB approval in 2011 to extract DNA from retained plasma samples from all subjects who participated in the study. We successfully obtained DNA and genotyped 291 of the 311 subjects. Preliminary analysis conducted solely by Interleukin in March 2012, demonstrated that subjects with three different genetic test patterns had different weight loss responses at 12 months depending on the diets to which they were assigned. The analysis from the larger dataset showed that further improved weight loss could be achieved if certain of the test's original diet assignments were modified. As a result, in March 2012, we updated our laboratory information management system's reporting and generated new diet recommendations for each pattern to provide customers the latest information from the new research.

Another study was conducted on the Weight Management Genetic Test with MetroWest Medical Center Hospital (MWM) as a prospective, real world setting trial. Thirty-four overweight male & female hospital employees were enrolled in a corporate wellness program. All study participants were counseled on diet and exercise by dietitians and exercise physiologists employed by MWM for the wellness program. Diet guidance included the American Heart Association diet and 500kcal reduction in caloric intake. Fourteen subjects were randomly given the Weight Management Genetic Test and diet guidance based on test results 2 weeks after baseline. Weight measurements and blood samples were taken at baseline, 24, 49, 86 and 100 days. The results of the study showed that those subjects who had taken the test lost statistically significantly more weight during the period than those who had not taken the test.

Bone Health Genetic Test

Our *Bone Health Genetic Test* is designed to identify whether an individual is more likely to be susceptible to spine fractures and low bone mineral density associated with osteoporosis. Although it typically starts later in life, early intervention can help prevent osteoporosis. Preventive measures can reduce the risk for bone loss and fractures, which in the case of vertebral fractures leads to a hunched over appearance. The test identifies a SNP in each of three genes involved in processes that affect bone; estrogen receptor alpha (ER1 Xba1), vitamin D receptor (VDR), and interleukin-1 (IL-1). Certain patterns of variations are associated with increased risk of spine fracture and/or low bone mineral density. The test can be used as an aid to making diet, exercise, and other lifestyle choices to maintain and improve bone health.

Heart Health Genetic Test

Our *Heart Health Genetic Test* is designed to identify genetic predisposition to excess inflammation, which is a risk factor for heart attack. The genetic analysis identifies individuals that have a lifelong tendency to overproduce certain chemicals in the body that lead to inflammation. Overproduction of these chemicals may start a chain reaction that ultimately may lead to a heart attack. Knowing genetic risk will enable individuals to take specific actions to decrease overall risk. The test identifies three SNPs in two genes involved in inflammation, IL-1 alpha and IL-1 beta. Certain IL-1 variations are associated with increased inflammation, which is a risk factor for early heart attack. The test may be used as an aid to making diet, exercise, and other lifestyle choices to reduce inflammation-based risk.

Nutritional Needs Genetics Test

Our *Nutritional Needs Genetics Test* is designed to identify DNA variations in genes crucial to B-vitamin metabolism and the ability to manage oxidative stress. Individuals with certain variations in these genes may be at increased risk for ineffective utilization of B-vitamins and potential for cell damage caused by oxidative stress, both of which can in some cases lead to increased risk for certain diseases. The test identifies the presence or absence of human genotypic markers methylenetetrahydrofolate reductase (MTHFR) and transcobalamin II (TCN2) involved in vitamin B metabolism and markers superoxide dismutase 2 (SOD2), glutathione S-transferase 1 deletions (GSTM1), paraoxonase 1 (PON1), X-ray repair cross complementing group 1 (XRCC1) in response to oxidative stress. Certain variations are associated with less efficient B-vitamin metabolism or reduced activity of endogenous anti-oxidant systems. The test may be used to aid individuals in deciding whether to supplement their diet with B vitamins and/or antioxidants.

Wellness Select Genetic Test

Our *Wellness Select Genetic Test* allows buyers to purchase any combination of Inherent Health® genetic tests at a discounted price.

Genetic Test Pipeline

In addition to the genetic tests listed above that we are currently marketing, we are also focusing our genetic test development efforts on the following program:

Osteoarthritis Genetic Test

Osteoarthritis, or OA, is the most common adult joint disease, increasing in frequency and severity in all aging populations. The estimated U.S. prevalence is 20-40 million patients or five times that of rheumatoid arthritis. The most common forms of OA involve the hand, knee, hip and spine. Total knee replacements number over 250,000 per year and total hip replacements number over 300,000 per year in the United States. OA may involve a single joint or multiple joints in the same individual, with current therapy focused on pain relief, as there is no FDA-approved therapy that arrests or reverses the joint deterioration. The etiology of OA is multifactorial involving both mechanical and biochemical factors. OA progression is associated with accelerated cartilage degradation leading to joint space narrowing, painful joint disruption, and functional compromise. OA disease progression is characterized by a proinflammatory gene expression pattern in cartilage and in joint synovial fluid, with a reactive increase in bone

density in the subchondral bone. Large amounts of data provide support for a central role of interleukins in the pathogenesis of OA including animal susceptibility models, models of IL-1-targeted therapy, genetic association studies, and elevated interleukin gene expression in patients with generalized OA. Genetic variations in the interleukin-1 gene cluster have been previously determined to be associated with multiple clinical phenotypes in OA. Our OA program plans to investigate whether interleukin gene variations together with several other inflammatory gene variations is associated with the occurrence of multi-joint OA for the development of a genetic risk assessment test.

In November 2009, we published new findings on the genetics of OA in the *Annals of Rheumatic Diseases*.We reported that a panel of genetic markers was highly predictive of which patients with knee OA were likely to develop severe disease as they age. The studies were done as a collaboration between Interleukin and New York University Hospital for Joint Diseases. In November 2010, we and the Thurston Arthritis Research Center at the University of North Carolina at Chapel Hill announced findings from a 1,154-patient longitudinal study to evaluate the role of genetic factors in OA progression. The new data replicated the findings reported previously by us and showed that specific proprietary patterns of IL-1 receptor antagonist gene variations predicted knee OA progression. In addition, we reported that patients with radiographic signs of early knee osteoarthritis were genetically different from those without radiographic signs of the disease and progressed to moderate or severe OA at a much greater frequency. Of those individuals who were completely free of radiographic signs of knee OA at the onset of the study, only 8.5 percent progressed to moderate or severe disease, whereas 33 percent of those with very early radiographic signs of disease exhibited progression. Those with early signs of OA were more likely than those who had no signs of disease to carry certain genetic factors, including variations in both the IL-1 receptor antagonist gene (IL1RA) and the DVWA gene that is involved in collagen formation. The combination of early radiographic signs of disease and carriage of gene variations associated with OA progression appears to identify individuals at increased risk for severe OA. We have filed patent applications on these findings.

On September 21, 2010, we and researchers from the Thurston Arthritis Research Center announced findings from a large clinical study to evaluate the role of genetic factors in osteoarthritis progression which showed patients with radiographic evidence of knee osteoarthritis who inherited a specific pattern of genetic variations in the interleukin-1 receptor antagonist (IL-1Ra) gene were almost twice as likely to progress to severe disease as other patients. Results from the study, which followed 1,154 patients for up to 11 years, were presented at the World Congress on Osteoarthritis in Brussels, Belgium.

We believe this information may allow pharmaceutical companies that are developing the first disease-modifying OA drugs (DMOADs) to screen patients and include in their clinical trials only those patients who have progressive disease. There is currently no mechanism for selecting high risk patients, and multiple clinical DMOAD studies have failed due to excessive numbers of patients with no progression of disease. The results may be useful for setting the dose of hyaluronic acids in the treatment of osteoarthritis pain. The genetic test could help identify those patients who need increased frequency dosing regimens or higher doses of the compound. This genetic information may also assist the rheumatologist in managing the medical and surgical options of individual patients. Additional studies identified a different set of genetic markers that were predictive of which patients started with knee OA and subsequently developed hand problems. We intend to search for marketing and sales partners to introduce the tests into the medical channel.

Laboratory Testing Procedure

To conduct a genetic risk assessment test, the end-user collects cells from inside the cheek on a brush and submits it by mail to our laboratory. Samples are processed only with a requisition signed by either a customer’s physician or one provided by Interleukin Genetics. Our clinical laboratory then performs the test using our protocols. Depending on the regulations in the particular state or (in Canada) province in which the customer resides, we provide the test results to the customer and/or designated health care provider.

During 2004, we completed the construction of our genetic testing laboratory (for which we obtained CLIA certification in 2005) to process the test samples. The regulatory requirements associated with a clinical laboratory are addressed under the section titled “- Government Regulation.” We have upgraded the systems and processes for the laboratory with the addition of high volume analytical equipment. We currently are licensed in the seven states that require a genetic test processing license.

Marketing and Distribution Strategy

Inherent Health ®

We market our Inherent Health® brand of genetic tests using our e-commerce website and under contract with Amway and several regional weight management focused organizations. We have developed a complete e-commerce solution for our Inherent Health® brand of genetic tests, www.inherenthealth.com. We have subcontracted with a fulfillment center to distribute tests to customers ordering via our online store. The e-commerce solution has provided a friendly and easy to use method for the purchase of our genetic tests. We are partnered with a number of websites that have established a link to our site in order to distribute tests. We pay these sites commissions for all orders made via a click through from their site to ours.

PST®

During 2012 we marketed and distributed our PST® test directly to dentists and periodontists via Quest Diagnostic's subsidiary, OralDNA Labs in the U.S. With the PDPS yielding positive results, we executed a Preferred Participation Agreement obtaining reimbursement coverage for the test from RHSC and its affiliates. Based on this agreement we will no longer sell the test through OralDNA Labs. The timing of any revenues that we may receive under this agreement is dependent upon the timing of the offering of Reimbursed Dental Plans, which timing is very uncertain at this time. Our current intent is to market our PST® test through Reimbursed Dental Plans sold by RHSC's affiliates to employer groups for plan years starting in January 2014. Accordingly, we do not expect to receive any significant revenues under this agreement until the first quarter of 2014 at the earliest, and the timing of any such revenues may be substantially later. See "Risk Factors - Risks Related to Our Business, Our Financial Results and Need for Financing - The timing and amount of revenues, if any, that we may receive pursuant to our Preferred Participation Agreement with RHSC and its affiliates is uncertain" for a discussion of the risks associated with the timing and amount of any revenues we may receive under this agreement.

Intellectual Property

Our intellectual property is focused on the discoveries that link variations in key inflammation and metabolic genes to various conditions or illnesses. We initially had concentrated our efforts on variations in the genes for the interleukin family of cytokines, because these compounds appear to be one of the strongest control points for the development and severity of inflammation. Our patents also cover genetic variations in the Perilipin family of proteins and others that are involved in fat storage and metabolism.

We have granted patents and pending applications directed to single SNPs and SNP patterns in gene clusters as they relate to use for identifying individuals on a rapid path to several medical conditions or for use in guiding the selection of diets, exercise, vitamin needs, preventive care and also therapeutic agents. Groups of SNPs are often inherited together as patterns called haplotypes. We have a U.S. patent issued on haplotypes in an interleukin gene cluster and their biological and clinical significance. We believe these patents are controlling relative to interleukin SNPs and haplotype patterns that would be used for genetic risk assessment tests.

Our patents are "use" patents that claim that a SNP, or set of SNPs in unique patterns can be used in a novel way to predict disease development or progression, predict responses to preventive or therapeutic interventions and identify specific actions that improve health outcomes. We currently own rights in 11 issued U.S. patents, that have expiration dates between 2015 and 2027, and have 10 additional U.S. patent applications pending, that are based on novel associations between particular gene sequences and certain metabolic and inflammatory conditions and disorders. The 11 issued U.S. patents relate to genetic tests for obesity, periodontal disease, osteoporosis, coronary artery disease, and other diseases associated with interleukin inflammatory haplotypes. Our newest patent applications relate to the commercial use of SNP panels in the fields of weight management, periodontal disease, osteoporosis and

osteoarthritis. If granted, we expect many of these patents are not likely to expire until between 2027 and 2031.

Our intellectual property and proprietary technology are subject to numerous risks, which we discuss in “Risk Factors - Risks Related to Our Intellectual Property.” Our commercial success will depend at least in part on our ability to obtain appropriate patent protection on our therapeutic and diagnostic products and methods and our ability to avoid infringing on the intellectual property of others.

We have been granted a number of corresponding foreign patents and have a number of foreign counterparts of our U.S. patents and patent applications pending.

Competition

The competition in the field of personalized health is changing. The markets and customer base are not well established. There are a number of companies involved in identifying and commercializing genetic markers. The companies differ in product end points and target customers. There are companies that market individual condition genetic tests for complex diseases to consumers and those that sell only to physicians. There are companies that market testing services for rare monogenic diseases mainly to physicians. There are companies that sell genome scanning services to provide customers (usually the consumer directly) reports on large numbers of SNPs or the person’s entire genome. There are also technology platform companies that sell SNP testing equipment.

The key competitive factors affecting the success of any genetic test is its perceived benefit by the user, price (potentially including availability of reimbursement) and the level of market acceptance. In the case of newly introduced products requiring "change of behavior" (such as genetic risk assessment tests), we believe the presence of multiple competitors may accelerate market acceptance and penetration through increasing awareness. Moreover, two different genetic risk assessment tests for the same disease may in fact test or measure different components, and thus, actually be complementary when given in parallel as an overall assessment of risk, rather than being competitive with each other. Furthermore, the primary focus of most companies in the field is performing gene-identification research for pharmaceutical companies for therapeutic purposes, with genetic risk assessment testing being a secondary goal. In contrast, our primary business focus is developing and commercializing genetic risk assessment tests for health risks and forward-integrating these tests with additional products and services.

For a discussion of the risks associated with competition, see "Risk Factors - Risks Related to Our Business, Our Financial Results and Need for Financing - We could become subject to intense competition from other companies, which may damage our business."

Government Regulation

The services that we provide are regulated by federal and state governmental authorities. Failure to comply with the applicable laws and regulations can subject us to civil and criminal penalties, loss of licensure, certification, or accreditation. We believe that we are currently in compliance with all applicable government regulations. We cannot predict what new legislation or regulations governing our operations will be enacted by legislative bodies or promulgated by agencies that regulate its activities, or what changes in interpretations of existing regulations may be adopted.

CLIA and Other Laboratory Licensure

Our clinical laboratory must hold certain licenses, certifications, and permits to conduct our business. Laboratories that perform testing on human specimens for the purpose of providing information for the diagnosis, prevention or treatment of disease or assessment of health are subject to the Clinical Laboratory Improvement Amendments of 1988 (CLIA). CLIA requires such a laboratory to be certified by the federal government and mandates compliance with various operational, personnel, facilities, administration, quality and proficiency testing requirements intended to insure that testing services are accurate, reliable and timely. Standards for testing under CLIA vary based on the level of complexity of the testing performed. Laboratories performing high complexity tests, such as genetic tests, must comply with more stringent requirements than laboratories perfoming moderate or waived testing.

As a condition of CLIA certification, our laboratory is subject to survey and inspection every other year, in addition to being subject to additional random inspections. The biennial survey is conducted by the Centers for Medicare & Medicaid Services, or CMS, a CMS agent (typically a state agency), or, if the laboratory is accredited, a CMS-approved accreditation organization.

CLIA provides that a state may adopt laboratory regulations that are more stringent than those under federal law. In some cases, state licensure programs actually substitute for the federal CLIA program. In other instances, the state's regulations may be in addition to the CLIA program. In addition, our laboratory holds multiple state licenses to the extent that we accept specimens from one or more of these states, each of which require out-of-state laboratories to obtain licensure. If a laboratory is out of compliance with state laws or regulations governing licensed laboratories, penalties for violation vary from state to state but may include suspension, limitation, revocation or annulment of the license, assessment of financial penalties or fines, or imprisonment. We believe that we are in material compliance with all applicable licensing laws and regulations.

We may become aware from time to time of other states that require out-of-state laboratories to obtain licensure to accept specimens from the state, and other states may impose such requirements in the future. If we identify any other state with such requirements, or if we are contacted by any other state advising us of such requirements, we intend to follow all instructions from the state regulators regarding compliance with such requirements.

Laboratories must renew certification every two years, which typically includes an inspection of the laboratory. Our laboratory was most recently inspected in October 2011 and no deficiencies or issues were noted and our CLIA license was renewed.

Food and Drug Administration

Although the Food and Drug Administration (FDA) has consistently claimed that it has the authority to regulate laboratory-developed tests, or LDTs, that are validated by the developing laboratory and performed only by that laboratory, it has generally exercised enforcement discretion in not otherwise regulating most tests developed and performed by high complexity CLIA-certified laboratories. However, for the past few years, the FDA indicated that it was reviewing the regulatory requirements that will apply to LDTs.

In July 2010, FDA held a public meeting in which FDA officials including those from the Office of In Vitro Diagnostic Products (OIVD), within the Center for Devices and Radiological Health (CDRH) announced their intention to develop a regulatory framework for LDTs that would be based on the risks posed by such tests. In particular, FDA officials stated that laboratory developed tests offered directly to consumers would no longer be subject to enforcement discretion. Concomitant with that meeting, FDA sent letters to more than a dozen companies offering direct-to-consumer, or DTC, genetic tests, including us, stating that their tests appeared to be subject to regulation as medical devices and requesting information on how the companies planned to come into compliance with FDA requirements. The FDA letter inquired about our Inherent Health brand of DTC genetic tests and stated that these tests appeared to meet the definition of a “device” under the Federal Food, Drug, and Cosmetic (FD&C) Act. The letter requested that the Company provide FDA with the clearance or approval number for the tests or with the basis for determination that the tests do not require FDA clearance or approval. In the letter, FDA offered to meet with us, “to discuss whether there are tests you are promoting that do not require review by FDA and what information you would need to submit in order for your products to be legally marketed.”

On November 1, 2010, we met with the director and staff members of the OIVD to present information on our tests. At FDA’s request, we submitted a plan in December 2010 and requested a follow-up meeting to obtain feedback on the plan from OIVD personnel. We have had no further communications regarding our products with the FDA. We have received no communication from the FDA relative to our periodontal disease test which is only available through licensed health practitioners.

In March 2011, FDA convened an expert advisory panel to discuss and make recommendations on scientific issues concerning DTC genetic tests that make medical claims. The panel expressed a variety of concerns regarding DTC genetic testing and recommended that certain tests not be permitted to be sold DTC. We submitted a position paper to the FDA in advance of the meeting and presented testimony to the panel at a public meeting on March 8, 2011.After that meeting, the OIVD director publically stated that FDA would likely take a case-by-case approach with respect to which types of genetic tests may be offered DTC. He also stated that OIVD planned to issue three guidance

documents addressing oversight of laboratory developed tests. However, he did not provide a timeframe for OIVD's release of these documents.In March 2012, an FDA spokesperson stated that FDA's plan to adjust its enforcement discretion policy for LDT's is currently under "administrative review."

As of now, the FDA has not issued the promised additional guidance, but we expect that is will do so in the future. Before any draft or final guidance is issued, however, the FDA will be required, for the next five years, to give at least sixty days prior notice to Congress in accordance with the recently enacted Food and Drug Administration Safety and Innovation Act, or FDASIA. The notice must include anticipated details of the action.

HIPAA and Other Privacy Laws

The Administrative Simplification provisions of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) established for the first time comprehensive federal protection for the privacy and security of health information. The Health Information Technology for Economic and Clinical Health Act (HITECH), part of the American Recovery and Reinvestment Act of 2009, significantly expanded the scope of HIPAA and increased penalties for violating HIPAA. The HIPAA standards apply to three types of organizations ("Covered Entities"): health plans, health care clearing houses, and health care providers who conduct certain health care transactions electronically. They also apply to vendors of Covered Entities called "Business Associates" that access protected health information to provide services to or perform functions on behalf of Covered Entities. Covered Entities and Business Associates must have in place administrative, physical and technical standards to guard against the misuse of individually identifiable health information. We are not currently a Covered Entity subject to the HIPAA privacy and security standard. It is possible that in the future we will become a Covered Entity (for example if any of the tests that we perform become reimbursable by insurers). Regardless of our own Covered Entity status, HIPAA may apply to our customers, such as health care providers and health plans. Even though we are not directly subject to HIPAA, we could be subject to penalties, lawsuits and experience other adverse consequences if we wrongfully acquire protected health information, aid and abet a HIPAA violation by a customer or if we obtain or disclose protected health information maintained by a Covered Entity without authorization in violation of HIPAA. In addition, some lawsuits, including class action lawsuits, have been pursued at the state level against both covered entities and entities that are not directly subject to HIPAA for breach of confidentiality and security violations.

Our activities must also comply with other applicable privacy laws, including state data security laws that apply to personal data of our employees as well as our customers. "Personal data" includes information such as name coupled with social security number, state issued identification number, or financial account number. State data security laws impose specific security measures for the protection of personal data and require notification to affected individuals and government authorities in the event of breach. Non compliance may result in government investigations, fines and significant negative publicity for our company.

Many states protect health information with confidentiality laws that are more stringent than HIPAA and that are not preempted by HIPAA. Most states protect certain categories of sensitive health information, such as infectious disease status or behavioral health history. Genetic information, including genetic test results, is often a protected category of health information. We must comply with all of these state-imposed laws. There are also international privacy laws, such as the European Data Directive, that impose restrictions on the access, use, and disclosure of health information and personal data across national lines.

In addition to health care privacy and data security laws, many states have adopted laws governing genetic testing and the use and disclosure of genetic test results. These laws typically require a specific form of written consent in advance of genetic testing and require special protections for test results. Given the complexity of genetic testing and the variety of techniques available for evaluating similar clinical conditions, these laws can be difficult to apply, making compliance more complex and potentially delaying implementation of a testing program when parties

disagree on interpretation. Our failure to comply with these laws may result in fines, government enforcement, privacy litigation and adverse publicity for our company.

If we become subject to HIPAA or other state or federal privacy and security laws, we will have to establish and maintain an active compliance program. We will subject to audit and investigation and may also be audited in connection with a complaint. We would also be subject to prosecution and/or administrative enforcement and increased civil and criminal penalties for non-compliance, including a new, four-tiered system of monetary penalties adopted under HITECH. We would also subject to enforcement by state attorneys general who were given authority to enforce HIPAA under HITECH.

We are subject to laws and regulations related to the protection of the environment, the health and safety of employees and the handling, transportation and disposal of medical specimens, infectious and hazardous waste and radioactive materials. For example, the U.S. Occupational Safety and Health Administration, or OSHA, has established extensive requirements relating specifically to workplace safety for healthcare employers in the U.S. This includes requirements to develop and implement multi-faceted programs to protect workers from exposure to blood-borne pathogens, such as HIV and hepatitis B and C, including preventing or minimizing any exposure through needle stick injuries. For purposes of transportation, some biological materials and laboratory supplies are classified as hazardous materials and are subject to regulation by one or more of the following agencies: the U.S. Department of Transportation, the U.S. Public Health Service, the United States Postal Service and the International Air Transport Association. We generally use third-party vendors to dispose of regulated medical waste, hazardous waste and radioactive materials and contractually require them to comply with applicable laws and regulations.

GINA Legislation

In 2008, the Congress passed and the President signed into law, the Genetic Information Non-discrimination Act or GINA. GINA prohibits certain entities from discriminating using genetic information, which includes information from genetic tests, genetic tests of family members and family medical history. It also includes information about an individual's or family member's request for or receipt of genetic services. This law generally prohibits health insurers or health benefit plans from:

- increasing the group premium or contribution amounts (such as co-payments) based on genetic information;
- requesting or requiring an individual or family member to undergo a genetic test; or
- requesting, requiring or purchasing genetic information prior to or in connection with enrollment, or at any time for underwriting purposes.

The law also prohibits employers and certain other entities, including employment agencies, from using genetic information in employment decision-making and from requesting, requiring, or purchasing genetic information. It also strictly limits such entities from disclosing genetic information.

In October 2009, the Department of Health and Human Services issued a proposed rule to modify the HIPAA Privacy Rule to implement Title I of GINA. Final regulations were adopted in January, 2013.Among other things, this rule revises the definition of health information under HIPAA to include genetic information.

GINA applies to some of our customers and to us as an employer. We could be subject to penalties, lawsuits or experience other adverse consequences if our operations violate GINA or cause another entity to violate GINA.

Federal Trade Commission

The Federal Trade Commission (FTC) has jurisdiction over the advertisements of many types of products and prohibits unfair or deceptive trade practices. Advertising for our tests, including statements made on our website, is subject to FTC requirements. In recent years, the FTC instituted enforcement actions against several dietary supplement companies for false and misleading marketing practices and advertising of certain products, including those intended for weight loss. These enforcement actions have resulted in consent decrees and monetary payments by the companies involved. Although the FTC has never threatened an enforcement action against us for the advertising of our products, there can be no assurance that the FTC will not question the advertising for our products in the future.

Facilities

We lease approximately 19,000 square feet of office and laboratory space at 135 Beaver Street, Waltham, Massachusetts 02452, pursuant to a lease that expires March 31, 2014. In April 2010, we entered into a sublease for approximately 6,000 square feet of unused office and laboratory space. The sublease expires March 31, 2014 when the master lease expires. Our current office and genetic testing facilities are not impacted by the sublease. We believe that within our current facility we have the capacity to have our operations grow in the future.

Legal Proceedings

We are currently not a party to any material legal proceedings .

MANAGEMENT

The Board of Directors and Management

We are managed under the direction of our Board of Directors. Our Board of Directors currently consists of seven directors. Prior to the closing of the Private Placement on May 17, 2013, our Board of Directors consisted of six directors. Pursuant to the terms of the Certificate of Designations, Rights and Preferences of Series A-1 Preferred Stock and Series B Preferred Stock, the holders of the Series A-1 Preferred Stock, voting together as a class, were entitled to elect up to three directors to our Board of Directors (the "Series A-1 Directors") and the holders of Series B Preferred Stock, voting together as a class, were entitled to elect one director to our Board of Directors (the "Series B Director"). The Series A-1 Directors were nominated and elected by Pyxis Innovations Inc. ("Pyxis"), as the sole holder of shares of our Series A-1 Preferred Stock. Prior to the Private Placement, James M. Weaver and Roger C. Colman were the Series A-1 Directors (and there was one vacancy). The Series B Director was nominated and elected by Delta Dental Plan of Michigan, Inc. ("DDMI"), as the sole holder of shares of our Series B Preferred Stock. Prior to the Private Placement, Goran Jurkovic was the Series B Director. Prior to the Private Placement, the Board included three directors who were not Series A-1 or Series B Directors and who were classified into three classes as follows: (i) William C. Mills III (Class I director with a term ending at the annual meeting), (ii) Kenneth S. Kornman, our Chief Executive Officer (Class II director with a term ending at the 2014 annual meeting), and (iii) Mary E. Chowning (Class III director with a term ending at the 2015 annual meeting). Under the terms of the Purchase Agreement, following the Private Placement the Board is to consist of seven directors as follows: (i) the Company's CEO; (ii) one independent director (was shall initially be Mr. Mills); (iii) two directors designated by Pyxis, (iv) one director designated by DDMI; and (v) two directors designated by Bay City Capital Fund V, L.P., one of the investors in the Private Placement ("BCC"). Accordingly, effective subject to and immediately following the closing of the Private Placement, James M. Weaver, Roger C. Colman, Goran Jurkovic and Mary E. Chowning resigned as directors of the Company (the "Director Resignations").

Pursuant to the terms of the Purchase Agreement, immediately following the Director Resignations, the number of persons which constitutes our Board of Directors was set at seven, and immediately thereafter, in accordance our Bylaws, the following persons were appointed as directors to fill the vacancies on the Board and to serve in accordance with the Bylaws in the classes set forth below (with Mr. Mills (Class I) and Dr. Kornman (Class II)):

(i) James M. Weaver was appointed as a Class I director with a term ending at the 2013 annual meeting;

(ii) Dayton Misfeldt was appointed as a Class II director with a term ending at the 2014 annual meeting of stockholders; and

(iii) Goran Jurkovic, Roger C. Colman and Lionel Carnot were appointed as Class III directors with a term ending at the 2015 annual meeting of stockholders.

Messrs. Weaver and Colman were designated by Pyxis, Mr. Jurkovic was designated by DDMI and Messrs. Misfeldt and Carnot were designated by BCC.

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Set forth below are the names of our directors and our executive officers, their ages, their position in the company, their principal occupations or employment for at least the past five years, the length of their tenure as directors and, for our directors, the names of other public companies in which they hold or have held directorships during the past five years.

Name	Age	Position with the Company
Kenneth S. Kornman, DDS, Ph.D.	66	Chief Executive Officer, President and Chief Scientific Officer and Director
Eliot M. Lurier	55	Chief Financial Officer & Treasurer
Scott Snyder	52	Chief Marketing Officer
James M. Weaver	49	Director and Chairman of the Board
Lionel Carnot(1)(2)	47	Director
Roger C. Colman (2)(3)	59	Director
Goran Jurkovic (1)	42	Director
William C Mills III (1)(3)	57	Director
Dayton Misfeldt(3)	39	Director

(1) Member of our Audit Committee
(2) Member of our Nominating Committee
(3) Member of our Compensation Committee

KENNETH S. KORNMAN, DDS, Ph.D. is Interleukin's co-founder and serves as our Chief Executive Officer, co-founder, President and Chief Scientific Officer. He was a member of our Board of Directors from August 2006 through April 2010, and in connection with our former Chief Executive Officer's resignation on August 23, 2012, the Board of Directors appointed Dr. Kornman as a director to fill the vacancy created by the former Chief Executive Officer's resignation. Prior to founding the Company in 1986, Dr. Kornman was a Department Chairman and Professor at The University of Texas Health Center at San Antonio. He has also been a consultant and scientific advisor for many major oral care and pharmaceutical companies. Dr. Kornman currently holds an academic appointment at Harvard University. He holds multiple patents in the pharmaceutical area, has published three books and more than 125 scientific papers and has lectured and consulted worldwide on the transfer of technology to clinical practice. Dr. Kornman also holds an MS (Periodontics) and Ph.D. (Microbiology-Immunology) from the University of Michigan. Our Board of Directors has concluded that Dr. Kornman should serve as a director because of his prior executive management experience, his scientific expertise and his knowledge of the dental and biotechnology industries. Dr. Kornman has not served on any other public company boards in the past five years.

ELIOT M. LURIER has been our Chief Financial Officer since April 2008. He became Treasurer in July 2008. Prior to joining the Company and since April 2005, Mr. Lurier was Vice President, Finance and Administration and Chief Financial Officer of Nucryst Pharmaceuticals, where he assisted in its initial public offering and was responsible for the company's reporting to the Securities and Exchange Commission and the implementation of Sarbanes-Oxley requirements. From April 2004 to March 2005, Mr. Lurier served as Chief Financial Officer and Chief Operating

Officer for Bridge Pharmaceuticals, Inc., where he established financial policies for managing business operations. From 1983 to 2004, Mr. Lurier held a number of senior-level financial positions, including Chief Financial Officer of Admetric Biochem, Inc., and Chief Financial Officer, Treasurer and Vice President of Finance of Ascent Pediatrics, Inc. From 1981 to 1983, Mr. Lurier was an auditor at Coopers and Lybrand in Boston, MA. He earned a B.S. in Accounting from Syracuse University in 1980 and is a Certified Public Accounting in Massachusetts.

SCOTT SNYDER joined Interleukin Genetics, Inc. as Chief Marketing Officer in January 2013. Mr. Snyder brings nearly 25 years of marketing and operational management experience in life sciences and consumer healthcare. Most recently, from 2009 to 2012, Mr. Snyder served as Vice President and General Manager at Bausch & Lomb, where he guided the private, equity-led turnaround of the company's flagship contact lens care business. Previously, he spent 20 years at Johnson & Johnson (J&J) in a career spanning all of J&J's business sectors including pharmaceuticals, medical devices and consumer products. While at J&J, Mr. Snyder helped lead the post-acquisition integration of dental products company Orapharma, Inc. and reshaped the company's commercial model. Early in his career at J&J, Mr. Snyder was selected for an expatriate assignment in Europe and has held multiple global roles throughout his career. He served as a U.S. Navy Officer, holds a B.S. Degree in Communications from Northwestern University, and received an MBA from the Kellogg School of Management.

JAMES M. WEAVER joined the Board of Directors in July 2007. He has served as Chairman of our Board since September 2007. He is Vice President of Alticor Corporate Enterprises, a member of the Alticor Inc. family of companies, which is engaged in the principal business of offering products, business opportunities, and manufacturing and logistics services in more than 80 countries and territories worldwide. In this role, Mr. Weaver is responsible for managing the current portfolio of Alticor's companies and directs its acquisition and growth. Prior to joining Alticor, Mr. Weaver worked for X-Rite Inc. where he held various leadership positions, including Senior Vice President and General Manager, Vice President of marketing and software development, Vice President of marketing and product development, as well as lead executive on several acquisitions. Mr. Weaver also founded and held the position of President and Chief Executive Officer of Bold Furniture Inc, and has held various leadership positions at Steelcase Inc. and Bissell Inc. Mr. Weaver received a Bachelor's degree in general studies from the University of Michigan in Ann Arbor and serves on several non-profit and private company boards. Our Board of Directors has concluded that Mr. Weaver should serve as a director because of his prior senior management experience and judgment and his extensive sales and marketing experience in the consumer product industry. Mr. Weaver has not served on any other public company boards in the past five years.

LIONEL CARNOT joined the Board of Directors in May 2013. Mr. Carnot is an Investment Partner at Bay City Capital LLC, a leading, global life sciences investment firm, and has been extensively involved in the firm's activities since he joined The Pritzker Organization in 2000. Prior to The Pritzker Organization, Mr. Carnot was a Principal at Oracle Partners, a healthcare hedge fund. He also held several positions in the pharmaceutical industry, including Product Manager for Prozac at Eli Lilly as well as several sales and marketing positions at Rhone-Poulenc Rohrer (now Sanofi). Mr. Carnot was also a strategy and management consultant to the biopharmaceutical industry while at Booz Allen & Hamilton and Accenture Strategic Services. Mr. Carnot is a member of the Board of Directors of Merus B.V., Madrigal Pharmaceuticals and Tallikut Pharmaceuticals, and is a former member of the board of Reliant Pharmaceuticals, Pathway Diagnostics, BioSeek and Nexus Dx. Mr. Carnot holds an MBA with Distinction from INSEAD and an MS with honors in Molecular Biology from the University of Geneva. Our Board of Directors has concluded that Mr. Carnot should serve as a director because of his prior management, consulting and board experience in the biotechnology and diagnostic industries, coupled with scientific, technical, sales and marketing, finance, and business development expertise. Mr. Carnot has not served on any other public company boards in the past five years.

ROGER C. COLMAN joined the Board of Directors in March 2011. Mr. Colman is Vice President of Corporate Development for Alticor Corporate Enterprises a member of the Alticor family of companies. He joined Alticor in 1994 from Readi-Bake, Inc., where he held positions as an operations and distribution executive. Mr. Colman earned a Bachelor of Science degree and a Master's of Business Administration degree from Grand Valley State University in Allendale, Michigan. Our Board of Directors has concluded that Mr. Colman should serve as a director because of his prior executive management experience, including assisting Amway affiliate operations in over 30 countries in diverse roles which included business process improvement and strategic planning, and prior experience serving on corporate boards. Mr. Colman has not served on any other public company boards in the past five years.

GORAN JURKOVIC joined the Board of Directors on June 29, 2012. Mr. Jurkovic is Senior Vice President and Chief Financial Officer for Delta Dental of Michigan. Prior to that, he served as controller, where he has overseen the organization's financial operations since 2004. Mr. Jurkovic began his career at Delta Dental in 1999 and was

responsible for directing the operations of the Accounting and Finance department. Before joining Delta Dental, Mr. Jurkovic was an audit associate with Plante & Moran, PLLC, a public accounting firm headquartered in Southfield, Michigan. He received a Bachelor's degree in accounting from Michigan State University and became a certified public accountant in 1996. He is a member of the American Institute of Certified Public Accountants and the Michigan Association of Certified Public Accountants. Our Board of Directors has concluded that Mr. Jurkovic should serve as a director because of his prior executive management, strategic planning and financial expertise. Mr. Jurkovic has not served on any other public company boards in the past five years.

WILLIAM C. MILLS III joined the Board of Directors in April 2010. He currently serves as Chairman of the Board of Directors and interim CEO of Stereotaxis, Inc. (NASDAQ: STXS), a medical device company that markets robotic cardiology instrument navigation systems designed to enhance the treatment of arrhythmias and coronary disease. He has been a venture capitalist for over 32 years. From 2004 until 2009, Mr. Mills was a managing member of a management company conceived by EGS Healthcare Capital Partners to manage EGS Private Healthcare Partnership III. Earlier, Mr. Mills was a Partner in the Boston office of Advent International, a private equity and venture capital firm, for five years. At Advent, he was co-responsible for healthcare venture capital investments and focused on investments in the medical technology and biopharmaceutical sectors. Before joining Advent, Mr. Mills spent more than 11 years with the Venture Capital Fund of New England where he was a General Partner. Prior to that, he spent seven years at PaineWebber Ventures/Ampersand Ventures as Managing General Partner. Currently, he is Chairman of the Board of Managers of Ascension Health Ventures III, LLC. Mr. Mills received his A.B. in Chemistry, cum laude, from Princeton University, his S.M. in Chemistry from the Massachusetts Institute of Technology and his M.S. in Management from MIT's Sloan School of Management. Our Board of Directors has concluded that Mr. Mills should serve as a director because of his significant experience serving on the boards of growing companies in the medical technology and biotechnology fields, which, coupled with his scientific and technical expertise, provides valuable knowledge regarding the Company's intellectual property, regulatory, and compliance activities. Except as noted above, Mr. Mills has not served on any other public company boards in the past five years.

DAYTON MISFELDT joined the Board of Directors in May 2013. Mr. Misfeldt is an Investment Partner at Bay City Capital LLC, a leading, global life sciences investment firm, and focuses on biopharmaceutical investment opportunities. Prior to joining Bay City Capital in May 2000, Mr. Misfeldt was a Vice President at Roth Capital Partners where he worked as a sell-side analyst covering the biopharmaceutical industry. Mr. Misfeldt has also worked as a Project Manager at LifeScience Economics. Mr. Misfeldt received a B.A. in Economics from the University of California, San Diego. Mr. Misfeldt currently serves on the Board of Directors of Sunesis Pharmaceuticals, Inc, a publicly traded biopharmaceutical company and several private company boards. Our Board of Directors has concluded that Mr. Misfeldt should serve as a director because he has financial expertise and strong understanding of the biotechnology industry, which the Board believes makes him an important resource for the Board as it assesses both financial and strategic decisions. Except as noted above, Mr. Misfeldt has not served on any other public company boards in the past five years.

Director Independence

Our Board of Directors has determined that the following members qualify as independent directors under the definition promulgated by The NASDAQ Stock Market LLC ("NASDAQ"): Lionel Carnot, Roger C. Colman, Goran Jurkovic, William C. Mills III, Dayton Misfeldt and James M. Weaver.

EXECUTIVE AND DIRECTOR COMPENSATION

Summary Compensation Table

The following table sets forth the total compensation awarded or paid to, accrued or earned during the fiscal years ended December 31, 2012 and 2011 by our former Chief Executive Officer, our current Chief Executive Officer and our Chief Financial Officer (there were no other executive officers employed by us as of December 31, 2012). We refer to these individuals as our "Named Executive Officers."

Name and Principal Position	Fiscal Year	Salary ($)	Bonus ($)	Stock Awards ($)(1)(2)	Option Awards ($)(1)(2)	Non-Equity Incentive Plan Compensation ($)	Change in Pension Value and Nonqualified Deferred Compensation Earnings ($)	All Other Compensation ($)(3)	Total ($)
Lewis H. Bender Former Chief Executive Officer(4)	2012	$ 227,539	$ —	$ —	$ —	$ —	$ —	$ 209,802	$ 437,341
	2011	$ 340,000	$ —	$ —	$ 138,936	$ —	$ —	$ 1,500	$ 480,436
Kenneth S. Kornman Chief Executive Officer, President and Chief Scientific Officer	2012	$ 363,296	$ —	$ —	$ 102,000	$ —	$ —	$ 3,296	$ 468,592
	2011	$ 360,000	$ —	$ —	$ 39,801	$ —	$ —	$ 3,296	$ 403,097
Eliot M. Lurier Chief Financial Officer	2012	$ 250,000	$ —	$ —	$ 68,000	$ —	$ —	$ 1,500	$ 319,500
	2011	$ 244,201	$ —	$ —	$ 31,250	$ —	$ —	$ 1,500	$ 276,951

(1) See Note 12 to our Financial Statements reported in our Annual Report on Form 10-K for our fiscal year ended December 31, 2012 for details as to the assumptions used to determine the fair value of the stock awards and option grants.

(2) Amounts represent the grant date fair value of stock awards and option grants. The 2011 option award amount for Mr. Bender consists of the grant date fair value of options for 500,000 shares, granted in February 2011. The 2011 and 2012 option award amounts for Dr. Kornman consists of the grant date fair value of options for 100,000 and 300,000 shares granted in May 2011 and December 2012, respectively. The 2011 and 2012 option award amounts for Mr. Lurier consists of the grant date fair value of options for 100,000 and 200,000 shares granted in March 2011 and December 2012, respectively.

(3) For Mr. Bender, 2012 amount consists of $181,168 paid in 2012 and $28,634 paid in 2013 under the severance agreement entered into on September 14, 2012. Mr. Bender received a $1,500 401K company contribution in 2011. Dr. Kornman received reimbursement of $3,296 for life insurance in 2011 and 2012, respectively. Mr. Lurier received a $1,500 401K company contribution in 2011 and 2012, respectively.

(4) Mr. Bender resigned effective August 23, 2012.

Narrative Disclosure to Summary Compensation Table

The compensation paid to our named executive officers in 2012 summarized in our Summary Compensation Table above is generally determined in accordance with employment agreements that we have entered into with each of our Named Executive Officers. The material terms of these agreements are discussed under the caption “Employment Agreements” below.

Outstanding Equity Awards at Fiscal Year-End

The following table shows stock option awards outstanding (vested and unvested) and unvested stock awards outstanding as of December 31, 2012, including both awards subject to performance conditions and non-performance-based awards, for each of the executive officers in the Summary Compensation Table.

	Option Awards					Stock Awards			
Name	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Options Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested ($)
Lewis H. Bender	400,000	—	—	$ 1.06	9/14/2013	—	—	—	—
	100,000	—	—	$ 0.89	9/14/2013	—	—	—	—
	250,000	—	—	$ 0.32	9/14/2013	—	—	—	—
Kenneth S. Kornman	30,000	—	—	$ 1.65	3/23/2013	—	—	—	—
	30,000	—	—	$ 4.70	12/11/2013	—	—	—	—
	150,000	—	—	$ 4.70	12/11/2013	—	—	—	—
	30,000	—	—	$ 3.65	12/14/2014	—	—	—	—
	20,000	5,000	—	$ 1.40	4/2/2018	—	—	—	—
	75,000	—	—	$ 0.48	11/12/2018	—	—	—	—
	12,000	18,000	—	$ 0.745	4/06/2020	—	—	—	—
	25,000	75,000	—	$ 0.46	5/06/2021	—	—	—	—
	—	300,000	—	$ 0.34	12/21/2022	—	—	—	—
Eliot M. Lurier	32,000	8,000	—	$ 1.49	4/30/2018	—	—	—	—

18,000	12,000	—	$ 0.27	3/13/2019	—	—	—	—
24,000	36,000	—	$ 0.745	4/6/2020	—	—	—	—
25,000	75,000	—	$ 0.36	3/23/2021	—	—	—	—
—	200,000	—	$ 0.34	12/21/2022	—	—	—	—

Employment Agreements

Lewis H. Bender

Effective as of January 22, 2008, we entered into a two-year employment agreement with Lewis H. Bender for the position of Chief Executive Officer that provided for automatic annual renewal terms. The agreement also provided that Mr. Bender would serve as a member of our Board of Directors for as long as he served as our Chief Executive Officer. The agreement provided for a minimum annual base salary of $340,000, a sign-on bonus of up to $35,000 payable over the first six months of employment and annual, discretionary bonuses of up to 50% of his base salary based upon our financial performance. In addition, the agreement provided for the reimbursement of Mr. Bender's relocation and living expenses for the first twelve months of employment. Upon hire, Mr. Bender was also granted an option to purchase 500,000 shares of our common stock at an exercise price equal to $1.06, the closing price as reported on the NYSE Amex on the effective date of the agreement, which option was to vest in equal annual installments on the option grant date and February 1 of each of the years 2009, 2011, 2012, and 2013.

On January 21, 2010, we entered into a one-year employment agreement with Mr. Bender to continue as our Chief Executive Officer. The agreement replaced and superseded the employment agreement entered into on January 22, 2008. The agreement had an initial term of one year and was automatically renewable for successive one year periods unless at least 90 days prior notice was given by either us or Mr. Bender. The agreement also provided that Mr. Bender would serve as a member of our Board of Directors for as long as he served as our Chief Executive Officer, subject to any required approval of our shareholders. The agreement provided for the continuation of Mr. Bender's annual base salary of $340,000 and an annual discretionary bonus of up to 50% of base salary based upon our financial performance. Under the terms of the agreement, Mr. Bender was granted an option to purchase 100,000 shares of our common stock at an exercise price equal to $0.89 per share, the closing price as reported on the NYSE Amex, LLC on the effective date of the agreement, exercisable immediately upon grant.

On February 14, 2011, we entered into a one-year employment agreement with Mr. Bender to continue as our Chief Executive Officer. The agreement replaced and superseded the employment agreement entered into on January 21, 2010. The agreement had an initial term of one year and was automatically renewable for successive one year periods unless at least 90 days prior notice was given by either us or Mr. Bender. The agreement also provided that Mr. Bender would serve as a member of our Board of Directors for as long as he served as our Chief Executive Officer, subject to any required approval of our shareholders. The agreement provided for the continuation of Mr. Bender's annual base salary of $340,000 and an annual discretionary bonus of up to 50% of base salary based upon our financial performance. Under the terms of the agreement, Mr. Bender was granted an option to purchase 500,000 shares of our common stock at an exercise price equal to $0.32 per share, the closing price as reported on the OTCQB on the effective date of the agreement. The option was immediately exercisable as to 125,000 shares upon grant and was to vest as to an additional 125,000 shares on each of February 14, 2012, 2013, and 2014. The agreement also included non-compete and non-solicitation provisions for a period of six months following the termination of Mr. Bender's employment.

On August 23, 2012, Mr. Bender notified the Board of Directors of his intention to resign as the Chief Executive Officer and as a member of the Board of Directors effective immediately. In connection with his resignation, on September 14, 2012, we entered into a Separation Agreement with Mr. Bender. Pursuant to the terms and conditions of the Separation Agreement, Mr. Bender received seven months of base salary, continuation of health insurance benefits through February 28, 2013 and extension of the date through which vested options at the date of his resignation can be exercised to September 14, 2013.

Kenneth S. Kornman, DDS, Ph.D.

On November 12, 2008, we entered into an employment agreement with Dr. Kornman, our President and Chief Scientific Officer, for a three-year term, commencing on March 31, 2009, the date his previous employment agreement expired. Effective March 31, 2012, this agreement was extended through November 30, 2012. Under this agreement, Dr. Kornman received an initial annual salary of $360,000 and is eligible to receive annual bonuses solely at the discretion of the Board of Directors. Dr. Kornman's annual salary may be increased in the sole discretion of the Board of Directors. Under the agreement, on November 12, 2008 Dr. Kornman received a stock option to purchase 75,000 shares of common stock, at an exercise price of $0.48 per share, which was the closing price as reported on the NYSE Amex on the grant date. The option was immediately exercisable with respect to 30,000 shares and vests with respect to an additional 15,000 shares on each of March 31, 2010, 2011, and 2012. Under the agreement, Dr. Kornman is entitled to participate in employee benefit plans that we provide or may establish for the benefit of our executive management generally. In addition, while Dr. Kornman remains employed by us, we will reimburse him $3,296 annually for payment of life insurance premiums.

The agreement is terminable immediately by us with cause or upon thirty days prior written notice without cause. The agreement is terminable by Dr. Kornman upon thirty days prior written notice. If we terminate Dr. Kornman without cause or Dr. Kornman terminates his employment with good reason, then, in addition to payment of any accrued, but unpaid compensation prior to the termination, we must continue to pay his base salary and to provide health insurance

benefits until the earlier of (1) expiration of the agreement or (2) twelve months. If we terminate Dr. Kornman in connection with a Cessation of our Business (as defined in the agreement), then, in addition to payment of any accrued, but unpaid compensation prior to the termination, we must continue to pay his base salary and to provide health insurance benefits until the earlier of (1) expiration of the agreement or (2) three months. The agreement also includes non-compete and non-solicitation provisions for a period of twelve months following the termination of Dr. Kornman's employment.

On March 31, 2010, Dr. Kornman was issued 12,500 shares of restricted stock under a restricted stock agreement dated April 30, 2008. In April 2010, as part of the year-end compensation process, the Compensation Committee granted Dr. Kornman an option to purchase 30,000 shares of our common stock. This option is exercisable at $0.745 per share and vests as to 20% of the shares on each of the first five anniversaries of the date of grant.

In May 2011, the Compensation Committee granted Dr. Kornman an option to purchase 100,000 shares of our common stock. This option is exercisable at $0.46 per share and vests as to 25% of the shares on each of the first four anniversaries of the date of grant.

On April 25, 2012, the Company executed an amendment, effective as of March 31, 2012, to Dr. Kornman's employment agreement to extend the term through November 30, 2012. In connection with Mr. Bender's resignation on August 23, 2012, the Board of Directors appointed Dr. Kornman as Chief Executive Officer in addition to his role as President and Chief Scientific Officer. The Board of Directors also appointed Dr. Kornman as a director to fill the vacancy created by Mr. Bender's resignation. On November 29, 2012, the Company entered into a second amendment to Dr. Kornman's employment agreement to extend the term through November 30, 2015.

In December 2012, the Compensation Committee granted Dr. Kornman an option to purchase 300,000 shares of our common stock. This option is exercisable at $0.34 per share and vests as to 25%, 33% and 42% of the shares on each of the first three anniversaries of the date of grant. In December 2012, the Compensation Committee also adopted an executive bonus plan. See "-Executive Bonus Plan" below.

Eliot M. Lurier

On April 30, 2008, we entered into an employment agreement with Eliot M. Lurier for the position of Chief Financial Officer. The agreement has an initial term of one year and is automatically renewable for successive one year periods unless at least 60 days prior notice is given by either us or Mr. Lurier. The agreement provides for an initial annual base salary of $217,000 which may be increased in the sole discretion of the Compensation Committee of our Board. Mr. Lurier's current base salary is $250,000. Under the agreement, Mr. Lurier is entitled to annual discretionary bonuses of up to 30% of his base salary in effect during the year for which the bonus relates. Bonuses will be determined by the Compensation Committee of the Board of Directors upon the suggestion of the Chief Executive Officer and will be based upon the employee's performance and the overall performance of the Company for the year. Mr. Lurier also received a signing bonus of $15,000 after his first four months of employment. On April 30, 2008, Mr. Lurier was granted an option to purchase 40,000 shares of our common stock at an exercise price equal to $1.49, which was the closing price as reported on the NYSE Amex on the grant date. The option vests in equal annual installments of 8,000 shares on each of the first five anniversaries of the grant date.

The agreement is terminable immediately by us with cause or upon thirty days prior written notice if without cause. The agreement is terminable by Mr. Lurier upon thirty days prior written notice. If we terminate Mr. Lurier without cause and at any time following the three-month anniversary of April 30, 2008, then we will pay Mr. Lurier, in addition to any accrued, but unpaid, compensation prior to the termination, an amount equal to six months of his base salary in effect at the time of the termination and six months of continued healthcare coverage, to the same extent that we provided healthcare coverage during his employment, if Mr. Lurier elects to continue participation in our health plan.

The agreement also includes non-compete and non-solicitation provisions for a period of six months following the termination of Mr. Lurier's employment.

In April 2010, as part of the year-end compensation process, the Compensation Committee granted Mr. Lurier an option to purchase 60,000 shares of our common stock. This option is exercisable at $0.745 per share and vests as to 20% of the shares on each of the first five anniversaries of the date of grant.

In March 2011, as part of the year-end compensation process, the Compensation Committee granted Mr. Lurier an option to purchase 100,000 shares of our common stock. This option is exercisable at $0.36 per share and vests as to 25% of the shares on each of the first four anniversaries of the date of grant.

In December 2012, the Compensation Committee granted Mr. Lurier an option to purchase 200,000 shares of our common stock. This option is exercisable at $0.34 per share and vests as to 25%, 33% and 42% of the shares on each of the first three anniversaries of the date of grant. In December 2012, the Compensation Committee also adopted an executive bonus plan. See "-Executive Bonus Plan" below.

Scott Snyder

On December 26, 2012, we entered into an employment agreement with Scott Snyder for the position of Chief Marketing Officer beginning on January 2, 2013. The agreement provides for a minimum annual base salary of $265,000, and for 2013 and 2014 he is eligible for a bonus pursuant to the Bonus Plan as described below under "-Executive Bonus Plan." For 2015 and any subsequent year in which he is employed, he is eligible for a bonus of up to 30% of his base salary, based on factors such as evaluation of individual performance, our financial performance, economic conditions generally, and the policy terms applicable to such bonus. Mr. Snyder is entitled to a maximum of $34,000 in expense reimbursement in calendar year 2013, and an additional $16,000 for the six months ending June 30, 2014, for travel and housing expenses from his residence to Interleukin's offices. Upon hire, Mr. Snyder was granted an option to purchase 200,000 shares of our common stock at an exercise price of $0.29 on January 2, 3013, the grant date of the option. The option vests in three installments of 50,000, 66,000 and 84,000 shares on each of the first three anniversaries of the grant date.

Mr. Snyder's agreement is terminable at will by us or Mr. Snyder. If we terminate Mr. Snyder without cause, then we will pay Mr. Snyder, in addition to any accrued, but unpaid compensation prior to termination, an amount equal to six months of his base salary in effect at the time of the termination.

Executive Bonus Plan

On December 21, 2012, the Compensation Committee approved a bonus plan (the "Bonus Plan") for our executives (Dr. Kornman, Mr. Lurier and Mr. Snyder). Under the terms of the Bonus Plan:

1. The executives are not entitled to a non-discretionary bonus for the year ending December 31, 2013.

2. Provided Interleukin meets certain earnings and revenue targets for the six months ending June 30, 2014 and the executive is employed by us as of June 30, 2014, the executive shall receive a bonus equal to 30% of such executive's base salary.

3. Provided Interleukin meets certain earnings and revenue targets for the year ending December 31, 2014 and the executive is employed by us as of December 31, 2014, Executive shall receive a bonus equal to 15% of such executive's base salary.

Director Compensation

The following table shows the total compensation paid or accrued during the fiscal year ended December 31, 2012 to each of our non-executive directors.

Name (a)	Fiscal Year	Fees Earned or Paid in Cash ($)	Stock Awards ($)	Option Awards ($)	All Other Compensation ($)	Total ($)
Mary E. Chowning (1)(2)	2012	$ 50,500	—	—	—	$ 50,500
William C. Mills III (2)	2012	$ 48,000	—	—	—	$ 48,000

(1) Ms. Chowning resigned from the Board of Directors effective May 17, 2013.

(2) The following table shows the total number of outstanding and vested stock options, and shares of outstanding and restricted common stock as of December 31, 2012, the last day of our fiscal year, that have been issued as director compensation.

Name	# of Stock Options Outstanding	# of Stock Options Vested	Shares of Common Stock Restricted
Mary E. Chowning	30,000	22,500	5,000
William C. Mills III	15,000	7,500	—

On April 29, 2010, our Board of Directors adopted the following policy for compensation of non-employee directors:

- for service as a director, an annual retainer of $20,000;
- for service as the chair of a committee, an annual retainer of $7,500;
- for service as a non-chair member of a committee, an annual retainer of $5,000;
- for each Board or committee meeting attended in person, by teleconference or by video, $1,500; and
- upon initial election or appointment to the Board, a grant of an option to purchase 15,000 shares of our common stock at an exercise price equal to the closing price of the common stock on the date of grant, with such option to vest in four equal annual installments on each of the first four anniversaries of the grant date.

Directors who are designated by Pyxis, DDMI and BCC are not eligible to receive the foregoing compensation. All of our directors are reimbursed for reasonable out-of-pocket expenses incurred in attending Board and committee meetings.

Equity Compensation Plan Information

The following table provides certain aggregate information with respect to all of our equity compensation plans in effect as of December 31, 2012.

Plan category	Number of securities to be issued upon exercise	Weighted average exercise price of	Number of securities remaining available

	of outstanding options, warrants and rights	outstanding options, warrants and rights	for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders(1)	2,302,000	$ 1.06	2,764,436
Equity compensation plans not approved by security holders	—	—	—
Total	2,302,000	$ 1.06	2,764,436

(1) These plans consist of our 2000 Employee Stock Compensation Plan (the "2000 Plan"), our 2004 Employee, Director and Consultant Stock Plan (the "2004 Plan") and our 2012 Employee Stock Purchase Plan (the "2012 ESPP"). The number of shares set forth in column (a) consists of shares subject to outstanding options under the 2000 Plan and the 2004 Plan as of December 31, 2012. The number of shares set forth in column (c) consists of 2,032,780 shares remaining available for issuance under the 2004 Plan and 731,656 shares remaining available for issuance under the 2012 ESPP as of December 31, 2012.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Pursuant to the written charter of our Audit Committee, the Audit Committee is responsible for reviewing and approving, prior to our entry into any such transaction, all transactions in which we are a participant and in which any of the following persons has or will have a direct or indirect material interest: our executive officers; our directors; the beneficial owners of more than 5% of our securities; the immediate family members of any of the foregoing persons; and any other persons whom the Board determines may be considered related persons, any such person being referred to as a "related person."

The following is a description of arrangements that we have entered into with related persons since January 1, 2011. We believe that the transactions described below were made on terms no less favorable to us than could have been obtained from unaffiliated third parties.

On August 17, 2006, we entered into a stock purchase agreement and further amended the note purchase agreement with Pyxis Innovations Inc., dated October 23, 2002, to, among other things, provide for the establishment of a $14.3 million convertible credit facility with Pyxis. Pyxis is our majority stockholder and a wholly-owned subsidiary of Alticor Inc. On June 10, 2008, we drew down $4.0 million under the convertible credit facility, leaving $10.3 million of available credit, and issued a convertible promissory note to Pyxis in that amount. In 2009, we drew down $3.0 million under this credit facility, leaving $7.3 million of remaining availability. In 2010, we drew down an additional $2.0 million under the credit facility leaving $3.3 million of remaining availability. In 2011, we drew down an additional $2.0 million and in 2012 we drew $1.3 million of remaining availability. There was no remaining availability to borrow under the credit facility and the aggregate principal amount of $14,316,255, plus interest, was due and payable in full on March 31, 2014. Pyxis had the right to convert the principal amount into shares of common stock at a conversion price equal to $5.68 per share, and immediately prior to the closing of the Private Placement, Pyxis converted all of the principal amount outstanding into 2,521,222 shares of our common stock.

On October 26, 2009, we entered into a Merchant Network and Channel Partner Agreement with Amway Corp. d/b/a Amway Global, a subsidiary of Alticor. Pursuant to this Agreement, Amway Global sells our Inherent Health brand of genetic tests through its e-commerce Web site via a hyperlink to our e-commerce site. Amway Global receives a commission equal to a percentage of net sales received by us from Amway Global customers. The agreement has an initial term of 12 months and is automatically renewable for successive 12-month terms. The agreement may be terminated by either party upon 120 days written notice. As of the date of this prospectus, we have paid Amway Global approximately $2.3 million in commissions under this agreement, including $951,000 in 2011 and $726,000 in 2012.

On April 15, 2011, we entered into a contract services agreement with Alticor Corporate Enterprises Inc. and Amway International Inc., affiliates of Alticor. Pursuant to this agreement, we provided marketing, promotional and training services to Amway in connection with its marketing of our weight management genetic test. Upon execution of the

agreement on April 15, 2011, the agreement received retroactive effect as of October 15, 2010 and the initial term expired on October 14, 2011. The agreement was not renewed. We received approximately $143,000 for our services under the agreement.

On September 14, 2012, we received a purchase order from Access Business Group, LLC (“ABG”), an affiliate of Pyxis. The order consists of kits of our Weight Management genetic test to be included in a promotional product bundle to be offered by ABG to the Amway sales channel in 2013. The total amount of the order is $1.0 million. We shipped $0.5 million in December 2012 and the balance in the first quarter of 2013. We reflected $0.5 million in accounts receivable with a corresponding offset to deferred revenue in our December 31, 2012 financial statements. We received payment of $0.5 million in January 2013.

On September 21, 2012, we entered into a License Agreement with Access Business Group International LLC (“ABGI”), an affiliate of Pyxis. Pursuant to the License Agreement, we have granted ABGI and its affiliates a non-exclusive license to use the technology related to our Weight Management genetic test and to sell the Weight Management test in Europe, Russia and South Africa (the “Territories”). ABGI, or a laboratory designated by ABGI, will be responsible for processing the tests, and we will receive a royalty for each test sold, which royalty will increase if certain pending patent applications are issued. The License Agreement has an initial term of five years from the date of first commercial sale of the Weight Management test under the agreement. Thereafter, the term will automatically renew for additional one-year periods unless at least 60 days prior notice is delivered by either party. To date, no license fees have been earned from this agreement.

In connection with the execution of the License Agreement, we and ABGI also entered into a Professional Services Agreement (the "PSA") pursuant to which we have agreed to provide services to ABGI in connection with its sale and processing of the tests within the Territories. Services will be provided pursuant to a statement of work to be entered into from time to time between the parties. Such statements of work will also specify the fees to be paid by ABGI to us for such services. The PSA has no set term and may be terminated by either party, subject to certain conditions. As of the date of this prospectus, we have been paid $3,450 under this agreement.

On June 29, 2012, we entered into an agreement with Pyxis to exchange the 5,000,000 shares of Series A Convertible Preferred Stock then held by Pyxis for 5,000,000 shares of newly designated Series A-1 Preferred Stock. Concurrently therewith, we completed a financing with DDMI pursuant to which DDMI purchased 500,000 shares of Series B Preferred Stock for gross proceeds of $3,000,000. The rights, preferences and privileges of the Series A-1 Preferred Stock and the Series B Preferred Stock were set forth in a certificate of designations, preferences and rights filed with the Delaware Secretary of State on June 29, 2012. Each share of Series A-1 Preferred Stock and Series B Preferred Stock was convertible at the option of the holder into such number of fully paid and nonassessable shares of common stock determined by dividing the applicable original purchase price by the Series A-1 Conversion Price ($0.3196) or the Series B Conversion Price ($0.2745), as applicable. Immediately prior to the closing of the Private Placement: (i) Pyxis converted all 5,000,000 outstanding shares of Series A-1 Preferred Stock into 28,160,200 shares of our common stock and (ii) DDMI, converted all 500,000 outstanding shares of Series B Preferred Stock into 10,928,961 shares of our common stock.

We have also entered into agreements with both Pyxis and DDMI containing certain terms for allocating opportunities as permitted under Section 122(17) of the Delaware General Corporation Law. These agreements regulate and define the conduct of certain of our affairs as they may involve these stockholders and their affiliates, and the powers, rights, duties and liabilities of us and our officers and directors in connection with corporate opportunities. Except under certain circumstances, these stockholders and their affiliates have the right to engage in the same or similar activities or lines of business or have an interest in the same classes or categories of corporate opportunities as we do. If Pyxis or DDMI, their affiliates, or one of our directors appointed by Pyxis or DDMI acquire knowledge of a potential transaction or matter that may be a corporate opportunity for both such stockholder and its affiliates and us, to the fullest extent permitted by law, such stockholder and its affiliates will not have a duty to inform us about the corporate opportunity or be liable to us or to our stockholders for breach of any fiduciary duty as a stockholder of ours for not informing us of the corporate opportunity, keeping it for its own account, or referring it to another person. Additionally, except under limited circumstances, if an officer or employee of Pyxis or DDMI who is also one of our directors is offered a corporate opportunity, such opportunity shall not belong to us. In addition, we agreed that such director will have satisfied his duties to us and not be liable to us or to you in connection with such opportunity. The terms of these agreements will terminate on the date that no person who is a director, officer or employee of ours is also a director, officer, or employee of Pyxis or DDMI.

On February 25, 2013, we entered into a Preferred Participation Agreement with Renaissance Health Service Corporation (an affiliate of DDMI), for itself and on behalf of certain of its affiliates and subsidiaries (collectively"RHSC"). Pursuant to this agreement, affiliates of RHSC have agreed to reimburse us a fixed price for each PST® genetic test that we process for a customer of certain affiliates of RHSC. In addition, if, during the term of this agreement, we offer the PST® test to any other person or party for a lower price, such lower price shall then be

applicable to tests processed for a customer of the affiliates of RHSC for the remainder of the term of the agreement. The pricing arrangement is subject to the satisfaction of certain milestones, including that (i) within a specified timeframe, RHSC affiliates must develop and offer dental benefit plans for which a significant portion of such affiliate's clients are eligible that provides for use of the PST® test and reimbursement of the test at the agreed upon price (each such plan, hereinafter referred to as a “Reimbursed Dental Plan”) and (ii) prior to a specified date, RHSC affiliates shall have sold policies for Reimbursed Dental Plans for the year beginning January 1, 2014. We have agreed that for a one year period beginning on the date on which RHSC affiliates first offer a Reimbursed Dental Plan, we will make the PST® test available solely to RHSC affiliates and not to any other third party or person. This agreement has a term of three years beginning on February 25, 2013, but may be terminated earlier (i) upon the mutual written agreement of us and RHSC, (ii) if either party becomes the subject of bankruptcy, insolvency, liquidation or other similar proceedings, or (iii) in the event of an uncured breach of the agreement by either party. To date we have received no revenues under this agreement.

On May 17, 2013, we closed the Private Placement, pursuant to which we sold to various accredited investors an aggregate of 43,715,847 shares of our common stock at a price of $0.2745 per share for gross proceeds of $12,000,000. The investors also received Warrants to purchase up to an aggregate of 32,786,885 shares of common stock an exercise price of $0.2745 per share. The Warrants were exercisable as to 63% of the shares immediately and the remaining 37% of the shares will become exercisable following receipt of stockholder approval of the Share Authorization Increase. The Warrants have a term of seven years from the date they become exercisable.

In addition, each investor in the Private Placement has the right, at any time and from time to time following the date of stockholder approval of the Share Authorization Increase and on or before June 30, 2014 (the "Expiration Date"), to purchase at one or more subsequent closings its pro rata share of up to an aggregate of $5,000,000 of additional shares of common stock and warrants on the same terms and conditions as those set forth above (the "Additional Investment"). If, prior to the Expiration Date, investors have not purchased their entire pro rata share of the Additional Investment, investors who have purchased their entire pro rata share of the Additional Investment, will be entitled to purchase the unsold portion of the Additional Investment. The following beneficial owners of more than 5% of our securities participated in the Private Placement:

	Initial Closing			Pro Rata Share of Additional Investment		
Purchaser	Shares	Warrant Shares	Purchase Price	Shares	Warrant Shares	Purchase Price
Bay City Capital Fund V, L.P.	20,187,464	15,140,598	$ 5,541,458.87	8,411,443	6,308,582	$ 2,308,941.10
Bay City Capital Fund V Co-Investment Fund	384,699	288,524	$ 105,599.88	160,291	120,218	$ 43,999.88
Growth Equity Opportunities Fund III, LLC	15,429,122	11,571,842	$ 4,235,293.99	6,428,801	4,821,601	$ 1,764,705.87
Merlin Nexus IV, LP	5,143,041	3,857,281	$ 1,411,764.75	2,142,935	1,607,201	$ 588,235.66

On May 17, 2013, we also entered into a Registration Rights Agreement with the investors in the Private Placement, Pyxis, DDMI and BTIG LLC (the placement agent in the Private Placement), pursuant to which we are required to file a registration statement on Form S-1 within 45 days of May 17, 2013 to cover the resale of (i) the shares sold in the Private Placement and the shares of common stock underlying the warrants issued in the Private Placement, (ii) the shares of common stock issued to Pyxis upon conversion of the Series A-1 Preferred Stock and the outstanding debt, (iii) the shares of common stock issued to DDMI upon the conversion of the Series B Preferred Stock, and (iv) the shares of Common Stock underlying warrants issued to BTIG LLC as placement agent compensation. In addition, within 45 days following the Expiration Date, we will be required to file a registration statement to cover the resale of (i) any shares of common stock sold to the investors pursuant to the Additional Investment and the shares of common

stock underlying any warrants issued pursuant to the Additional Investment, and (ii) shares of common stock underlying any additional warrants issued to BTIG LLC as placement agent compensation in connection with the Additional Investment. The failure on the part of Interleukin to satisfy certain deadlines described in the Registration Rights Agreement may subject us to payment of certain monetary penalties.

PRINCIPAL STOCKHOLDERS

The following table sets forth certain information with respect to the beneficial ownership of our common stock as of July 1, 2013 for (a) the executive officers named in the Summary Compensation Table of this proxy statement, (b) each of our directors and director nominees, (c) all of our current directors and executive officers as a group, and (d) each stockholder known to us to beneficially own more than five percent of our common stock. Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the securities. We deem shares that may be acquired by an individual or group within 60 days following July 1, 2013 pursuant to the exercise of options or warrants to be outstanding for the purpose of computing the percentage ownership of such individual or group, but are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person shown in the table. Except as otherwise indicated, we believe that the stockholders named in the table have sole voting and investment power with respect to all shares shown to be beneficially owned by them based on information provided to us by these stockholders. Percentage ownership is based on a total of 122,140,718 shares of our common stock issued and outstanding on July 1, 2013.

Name and Address of Beneficial Owner(1)	Amount and Nature of Beneficial Ownership	Percent
Five Percent Stockholders		
Pyxis Innovations Inc. (2) 7575 Fulton Street, East Ada, MI 49355	37,565,478	30.8 %
Bay City Capital LLC (3) 750 Battery Street Suite 400 San Francisco, CA 94111	36,001,285	26.2 %
Growth Equity Opportunities Fund III LLC (4) 1954 Greenspring Drive Suite 600 Timonium, MD 21093	27,000,964	20.2 %
Delta Dental of Michigan, Inc. (5) 4100 Okemos Road Okemos, MI 48864	10,928,961	8.9 %
Merlin Nexus IV LP (6) 424 West 33rd Street Suite 330 New York, NY 10001	9,000,322	7.1 %
Directors and Executive Officers		
Lewis H. Bender (7)	1,066,854	*
Kenneth S. Kornman, DDS, Ph.D. (8)	1,442,029	*
Eliot M. Lurier (9)	181,309	*
James M. Weaver (10)	—	*
Lionel Carnot (11)	36,001,285	26.2 %
Roger C. Colman (10)	—	*
Goran Jurkovic (12).	—	*
William C. Mills, III (13)	11,250	*

Dayton Misfeldt (11)	36,001,285	26.2 %
All current executive officers and directors as a Group (9 persons) (14)	37,635,963	27.3 %

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* Represents less than 1% of the issued and outstanding shares.

(1) Unless otherwise indicated, the address for each person is our address at 135 Beaver Street, Waltham, MA 02452.