

INTERLEUKIN GENETICS INC  
Form 10-K  
March 25, 2009

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

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**FORM 10-K**

ý **ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE  
SECURITIES AND EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2008

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_  
Commission File Number: 001-32715

**INTERLEUKIN GENETICS, INC.**

(Name of Registrant in its Charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**94-3123681**  
(I.R.S. Employer  
Identification No.)

**135 Beaver Street, Waltham, MA**  
(Address of principal executive offices)

**02452**  
(Zip Code)

Registrant's Telephone Number: **(781) 398-0700**

Securities registered pursuant to Section 12(b) of the Exchange Act:

**Common Stock, \$0.001 par value  
per share**

**NYSE Alternext US LLC**

Securities registered pursuant to Section 12(g) of the Exchange Act:

**Common Stock, \$0.001 par value per share**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES o NO ý

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. YES o NO ý

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Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES o NO y

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or 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. (Check one):

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES o NO y

The aggregate market value of the registrant's voting and non-voting common stock held by non-affiliates of the registrant (without admitting that any person whose shares are not included in such calculation is an affiliate) computed by reference to the price at which the common stock was last sold as of the last business day of the registrant's most recently completed second quarter was \$38,147,212.

As of March 04, 2009 there were 31,830,887 shares of the registrant's Common Stock and 5,000,000 shares of the registrant's Series A Preferred Stock, issued and outstanding.

### Documents Incorporated By Reference

Portions of the registrant's Definitive Proxy Statement for the 2009 Annual Meeting of Shareholders to be held on or about June 12, 2009, are incorporated by reference in Part III hereof.

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**FORM 10-K**

**FOR THE YEAR ENDED DECEMBER 31, 2008**

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**PART I**

**Special Note Regarding Forward-Looking Statements**

This Annual Report on Form 10-K and, in particular, the description of our Business set forth in Item 1, the Risk Factors set forth in Item 1A and Management's Discussion and Analysis of Financial Condition and Results of Operations set forth in Item 7, and the documents incorporated by reference into this report contain or incorporate certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Statements contained in this report that are not statements of historical fact may be deemed to be forward-looking statements. Words or phrases such as "may," "will," "could," "should," "potential," "continue," "expect," "intend," "plan," "estimate," "anticipate," "believe," "project," "likely," "outlook," or similar words or expressions or the negatives of such words or expressions are intended to identify forward-looking statements. We base these statements on our beliefs as well as assumptions we made using information currently available to us. Such statements are subject to risks, uncertainties and assumptions, including those identified in Item 1A "Risk Factors" and elsewhere in this report, as well as other matters not yet known to us or not currently considered material by us. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those anticipated, estimated or projected. Given these risks and uncertainties, prospective investors are cautioned not to place undue reliance on such forward-looking statements. Forward-looking statements do not guarantee future performance and should not be considered as statements of fact. All information set forth in this Form 10-K is as of the date of filing this Form 10-K and should not be relied upon as representing our estimate as of any subsequent date. While we may elect to update these forward-looking statements at some point in the future, we specifically disclaim any obligation to do so to reflect actual results, changes in assumptions or changes in other factors affecting such forward-looking statements.

**Item 1. Business**

**Overview**

Interleukin Genetics, Inc. is a genetics-focused personalized health company that develops genetic tests for sale to the emerging personalized health market. The company also sells dietary supplements through a wholly-owned subsidiary. Our vision is to build a leading personalized health and wellness company. We believe that the science of applied genetics can empower individuals to personalize their health and provide valuable information to assist in drug development. We currently have three primary focus areas to our business. The first is personalized health, which is primarily focused on providing genetic test products to customers. These products are distributed via sales partners and our own sales channels, with the goal of providing guidance for the individual interested in improving their health and wellness. The second is a research and development effort focused on developing genetic tests linked to a partner's products for marketing and sales into medical and dental channels. The third comprises the Alan James Group (AJG) brand of nutritional supplements and products sold through retail consumer channels. All three contribute toward our overall mission of providing products that can help individuals improve and maintain their health through preventive measures. We plan to pursue improving personalized healthcare for patients by:

processing genetic risk assessment tests in our CLIA-certified lab or in labs of sub licensees for ourselves or for partners;

distributing existing and developing new genetic risk assessment tests for use in multiple indications, countries and demographics; and

promoting our existing brand of AJG products and developing or acquiring new nutritional products or botanicals for distribution in mass retail consumer channels, and expanding their distribution to new consumer channels.

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We believe that by providing important genetic information to our customers or identifying those individuals whose risk for certain chronic diseases may be increased due to variants in one or more genes and combining this knowledge with personalized interventions, we can help individuals improve their health outcomes. We have patents covering the influence of certain gene variations on risk for a number of common chronic diseases and conditions.

We believe that one of the great challenges confronting healthcare today is understanding why some people are more prone than others to develop various medical conditions and why some people respond to treatments for those conditions differently than others. Until individuals or their doctors are able to understand the underlying causes of such variability, healthcare will remain largely constrained to the current approach of broad treatment rather than customized prevention. Most recommendations for a given condition do not consider genetic differences among individuals and, as a result individuals whose condition may be very different because of genetic variation all receive the same treatment.

Until recently, scientific study of chronic health conditions has largely focused on identifying factors that are causative. Common examples of such factors include high levels of cholesterol in the case of heart disease, bacteria in the case of periodontal disease and reduced estrogen levels in the case of osteoporosis. However, the mere presence of these initiating factors does not necessarily mean a person will develop an illness. Many common conditions arise in part as a result of how our bodies respond to various environmental factors.

**Genetic Test Products**

One of the many benefits from the sequencing of the human genome is a new understanding of the role of genetic variations, such as single nucleotide polymorphisms (SNP) and haplotypes. Once used as a tool to help scientists decipher the human genome, SNP and haplotype analysis now is an important tool used to study the relevance of genetic variations to human health. A common SNP may cause a gene to make a different amount of a protein, change the timing of protein synthesis or make a variant protein, each of which may lead to a discernible physiological impact. We have focused on the SNP variations associated with inflammation and metabolic disease. During the last decade we have worked with the University of Sheffield in the United Kingdom to identify several SNPs that influence the body's inflammatory response. We have concluded our research collaboration with the University of Sheffield, but the ten-year collaboration helped us generate several patents. The principal investigator, Dr. Gordon Duff, continues to serve as a member of our scientific advisory board. In addition, we have conducted clinical studies throughout the world involving over 21,000 individuals to make these research findings clinically useful. Some of our clinical research collaborations include studies at the Mayo Clinic; Brigham & Women's Hospital (Harvard Medical College); 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, Seoul Korea; Tongji Medical College, Wuhan China; and Tuft's University Medical Center. We have also conducted research with the Geisinger Clinic.

**Inflammatory Disease**

Inflammation is one of the body's most ancient protective mechanisms. The understanding of the role of inflammation in several diseases has increased over the past few years. It is now accepted that many chronic diseases begin with a challenge to the tissues of the body and that the inflammatory response system of an individual mediates the clinical manifestation of the disease. It is now thought that SNP variations in the genes that influence the inflammatory process can have an important impact on a person's risk/trajjectory of a disease.

Inflammation is the first organized response to any injurious challenge to the body, such as a bacterial infection. It is a well-defined process that involves the migration and activation of leukocytes

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from the blood to the site of challenge. The objective of inflammation is to localize and destroy the deleterious agent. If the deleterious agent cannot be cleared, the inflammation becomes chronic.

There are classic inflammatory diseases, such as rheumatoid arthritis. In recent years inflammation has been found to affect several other major diseases of aging. It is now known that chronic inflammation can influence the process that leads to acute heart attacks. If an individual has a strong inflammatory response, he or she may be more successful in clearing a bacterial infection than an individual with a less robust response. However, an individual with a strong response may actually be at increased risk for a more severe course in one or more of the chronic diseases of mid to later life, such as cardiovascular disease, osteoporosis, osteoarthritis, asthma, cancer and Alzheimer's disease.

**Intellectual Property**

In the early 1990s, as we were beginning to focus on the importance of interleukin cytokines, Dr. Gordon Duff in the United Kingdom identified the first SNPs in the Interleukin and tumor necrosis factor alpha (TNF $\alpha$ ) genes, and he and other investigators demonstrated that individuals with some of those variations produced higher levels of Interleukin and TNF $\alpha$  proteins. In 1993, we initiated research collaborations with Dr. Duff, and in 1994, we initiated collaboration with the University of Sheffield to investigate and patent the clinical use of variations in the genes that control inflammation. Studies by us and others have now shown that individuals who have certain Interleukin gene variations or patterns of variations tend to have increased levels of interleukin proteins and also tend to have increased levels of other inflammatory or metabolic mediators that are produced downstream of the interleukin proteins.

Our collaboration with investigators at the Tufts University Medical School has resulted in our in-licensing a number of patents related to the genes involved with perilipin proteins. We have in-licensed international rights to the use of these gene variations, or genotypes, that regulate one important mechanism involved in fat metabolism. Additional U.S. patents have been filed to cover the use of these genetic factors. When an individual consumes more calories than he or she burns, the excess energy is stored in fat cells as lipid droplets. One of the key chemicals that regulate the mobilization of fat from the lipid droplet to be burned as energy is called perilipin. Investigators at Tufts University Medical School and Tufts Human Nutrition and Research Center have identified variations in the perilipin genes that appear to regulate fat metabolism and body weight. Studies have been completed on several hundred individuals showing that women with one specific perilipin genotype weigh an average of 22 pounds more than women with another perilipin genotype. Seven clinical studies were published from 2004 through 2007 on the influence of perilipin genotypes on weight and related biological parameters. This research was conducted under the direction of Dr. Jose Ordovas, an international expert on the genetics of cardiovascular disease and on the interactions of genetics and nutrition. We have licensed rights to the use of these patents for weight management and to develop nutritional products to facilitate weight management in individuals who have certain perilipin gene variations. Our collaborators have completed research which indicates that the perilipin genetic variations could be used for the medical guidance of weight management. We plan to conduct additional research which may lead to the development of genetic tests for this use.

We currently own rights in twenty issued U.S. patents, which have expiration dates between 2015 and 2020, and have twenty-one additional U.S. patent applications pending, which are based on novel genes or novel associations between particular gene sequences and certain inflammatory diseases and disorders. Of the twenty issued U.S. patents, sixteen relate to genetic tests for periodontal disease, osteoporosis, asthma, coronary artery disease, sepsis and other diseases associated with interleukin inflammatory haplotypes. Our intellectual property and proprietary technology are subject to numerous risks, which we discuss in the section entitled "Risk Factors" of this report. Our commercial success may depend at least in part on our ability to obtain appropriate patent protection on our therapeutic and diagnostic products and methods.

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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.

In addition, through our Alan James Group subsidiary, which we acquired in August 2006, we own a portfolio of nutritional products brands, including Ginkoba , Ginsana®, and Venastat®. We have received trademark protection for PST®, our periodontal genetic risk assessment test.

**Our Approach to Test Development**

Our approach to test development is to create products that will benefit individuals seeking guidance for their particular conditions or illnesses. A genetic test must therefore be useful, understandable, and credible and serve as guidance for future action. The action resulting from the information provided by our genetic tests could be either some form of medical treatment, lifestyle change, or more careful monitoring of the person's condition. It is important that a thorough understanding of the market potential for a potential genetic test be well understood prior to initiation of any research. Finally the company must be able to launch and sell a given product effectively

Our intellectual property estate 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 patent estate also covers genetic variations in the Perilipin family of proteins that are involved in fat storage and metabolism.

We have patents issued on 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.

Multiple genes and complex gene interactions along with environmental factors determine the risk for the common diseases. Scientifically, the Company will develop a test based on our proprietary genetic factors if: a) clinical studies show that their effect has a critical and unique influence on the clinical expression of disease, or b) our genetic factors guide the development or use of lifestyle, preventive measures or therapeutic agents that modulate the specific actions of those genetic factors. The risk effects of our genetic factors must be sufficiently powerful so that these genetic factors cannot be excluded from a test panel without substantially reducing the practical clinical usefulness of the test. For example, in patients with a history of heart disease, higher levels of inflammation (as measured by certain markers such as C-reactive protein) are as predictive of future heart attacks as higher levels of LDL cholesterol. Indeed, recent studies published toward the end of 2008 indicated that chronic underlying inflammation has been shown to be 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 risk for heart disease. We will use our proprietary genetic technology as part of a broader genetic panel that predicts an individual's risk for disease as they age or predicts a patient's likelihood of severe complications from disease or response to specific treatment if they have already been diagnosed with disease. When our proprietary genetic technology is a significant part of the predictive value of the test panel, we can market a test that is superior to other tests in the same medical area.

There are gene families that influence other non-inflammatory biological mechanisms involved in cardiovascular disease such as cholesterol metabolism. For each targeted clinical disease area that meets our criteria, we are developing, or plan to develop, proprietary risk assessment tests that are

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anchored by our intellectual property, plus additional candidate genes that have been validated and shown to be of value in assessing risk. Other genes to be added to a test panel may be in-licensed or may be available from the public domain. Since knowledge about the genes involved in health risks 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. The heart health risk assessment panel introduced in our partner's channel in 2006 involves three SNPs in two genes covered by our intellectual property. The osteoporosis risk assessment panel we are developing includes multiple SNPs covered by our intellectual property, plus additional in-licensed genes that have been validated as risk factors for osteoporosis.

In the past few years, genome-wide association (GWA) studies have become possible as one approach to identify the association of many genes with specific health risks. These studies are now practical due to the commercial availability of genome-wide array technologies. Most of the GWA studies are being conducted through government-funded consortia. We have access to GWA technologies and expertise through some of our collaborators. In diseases or conditions for which GWA technologies are being used in large government-funded studies, we may in-license or access publicly available SNPs for our panels. In diseases or conditions for which other GWA studies are not available, we may choose to employ GWA technologies either internally or through external collaborations to add value to our test panels. All of these technologies are dependent on high quality clinical databases, which we are collecting throughout the world for selected health risks. The use of GWA approaches to health risks is new, and data coming out of the first studies may take many years to validate and demonstrate clinical utility.

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. As recently reported studies show, 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.

In some cases, we have and may continue to develop genetic test panels that have limited or no exclusive intellectual property but meet specific needs of Alticor, our distribution partner, or that can be marketed under our own brand of genetic tests. The general nutrition panel launched in the U.S., as described below, is an example of such a test panel.

**Business Strategy**

Our strategy is to develop test products for our own business needs and perform R&D services for partners interested in developing a companion diagnostic for their products. Our goal is to commercialize R&D test products and services through strategic alliances. In the near term, we plan to build out our own direct-to-consumer marketing strategy for our brand of genetic tests and launch products in new channels. We are also interested in in-licensing products or intellectual property to create new products. Our genetic testing business will continue to explore high potential markets such as weight management, osteoporosis, and arthritis, where there is a clear unmet medical need for improved care. Our research and development initiatives will continue to enhance our intellectual property position, ensure commercial and technical success of our products, and develop formulary solutions that enable our partners to offer prevention and intervention therapeutics in a consumer and/or medical segment.



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*Alticor Partnership*

In March 2003, we entered into a broad strategic alliance with Alticor to develop and market novel genetic risk assessment tests and nutritional and skin care products. The alliance utilizes our intellectual property and expertise in genetics to develop risk assessment tests and aids Alticor in its effort to develop personalized consumer products. The alliance has included working capital loans, equity investments and multi-year research and development agreements. A licensing agreement includes sales of selected genetic tests to Alticor for distribution within their channel. In addition, we receive minimal royalties on marketed Alticor nutritional products that are linked to the genetic tests.

This alliance has opened our products and services to our partner's proven marketing and distribution channels. We believe that Alticor shares our belief that the future of personalized nutritional supplements and skin care will be based on an individual's genetic makeup. This alliance is currently focused on developing genetic risk assessment tests to determine a genetic profile of an individual and developing nutritional supplements and skin care products that will benefit individuals of that genetic profile. Our activities in the skin care field are in the planning stage.

We expect our revenue model to consist of:

fees for processing genetic risk assessment tests;

royalties or profit sharing from sales of genetic test products developed with and marketed by a partner;

fees for contract research;

sales of consumer products, including those acquired in our August 2006 acquisition of the business and assets of the Alan James Group; and

royalties from sales of supplement products licensed to commercial partners.

**Genetic Test Products**

**Gensona Genetic Tests**

We have research agreements with Alticor to develop certain genetic tests, which Alticor will market to consumers through its channels under Alticor's GENSONA® brand. In 2006, we provided two genetic risk assessment tests through Alticor. The GENSONA® Heart Health Genetic Test uses SNP testing of two genes to identify persons who may have an over-expression of inflammation and therefore may be at increased risk for cardiovascular disease. The GENSONA® General Nutrition Genetic Test identifies SNPs of potential importance in two genes that affect vitamin B metabolism and four genes involved in responding to oxidative stress. The GENSONA® tests are marketed solely through the Alticor business channel.

**Interleukin Genetics Brand of Genetic Tests.**

In September, 2008 we were successful in negotiating a new agreement with Alticor whereby Alticor's license became non-exclusive. The agreement continued to allow Interleukin Genetics to have exclusive ownership of all inventions relating to genetic tests arising from research programs between the companies. Thus we were able to obtain the rights to market all IP, including the genetic tests outside of the Alticor channel. As a result, efforts have been made to launch our own brand of genetic test products which we plan to distribute through other channels.

We currently out-license sales and marketing of our Periodontal Susceptibility Test (PST®). PST® is a genetic test that analyzes two IL-1 genes for variations that identify an individual's predisposition for over-expression of inflammation and risk for periodontal disease. We expect to review a number of business development strategies in 2009 to increase sales of PST® tests.

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**Nutritional Supplements**

In August 2006, we acquired the assets and business of the Alan James Group, which develops, markets and sells nutritional products into retail consumer channels. As part of the acquisition, we acquired a portfolio of branded nutritional supplements which are distributed at leading discount retailers, drugstores, grocery stores and warehouse clubs in the United States. The Alan James Group maintains an efficient operational infrastructure, highlighted by relationships with key manufacturing, logistics, and technology partners, and an experienced marketing and product development team, who are based in Boca Raton, Florida. Future expansion in the areas of product and channel development offers us opportunities to expand and enhance its product portfolio.

We currently market and sell a line of branded nutritional supplements, none of which are connected to our genetic tests, to major discount retailers, drugstores, grocery stores and warehouse clubs in the United States. Our portfolio includes items in multiple segments, including Energy, Memory, Leg Vein Health, and Heart Health. Recognizable brand names include Ginsana®, Ginkoba , Venastat®, Ginsana Gold Multiplex®, Optiform SAM-e® and Cransana®, which are company-owned, and Kyolic®, which is marketed under a distribution agreement. In addition, we market a line of private label skincare products on an exclusive basis to a large nutrition based retailer. We maintain an efficient operational infrastructure, in which we leverage strategic relationships with contract manufacturers, logistics companies and technology partners, enabling us to source and distribute products on a competitive basis, and maintain excellent service levels with our customers. We also maintain relationships with key sales brokers, who in conjunction with our sales and support personnel, can effectively manage the product related and promotional initiatives needed to support and grow the business.

Our objective is to increase sales, improve our operating efficiencies, and enhance our position in the market through the following key initiatives:

*Increase Sales of our Existing Nutritional Supplement Products.* We expect to maintain and strengthen our supplement sales through a combination of targeted promotional activities at both the store and consumer levels. Specifically, we use print advertising in selected periodicals that effectively reach our target consumer, to emphasize product attributes and benefits. In addition, by using in-store promotional activities, such as temporary price reductions, to coincide with our marketing initiatives, we can further enhance the value proposition offered to our consumers, stimulating both repeat purchase, and attracting new customers into our franchise.

*Introduce New Products.* Given the dynamic nature of demand for consumer products and the continued emphasis on vitamins, minerals, and nutritional supplements in the context of promoting health and well being, we actively seek opportunities to introduce innovative products, which have unique attributes and can establish a competitive position in the marketplace. We expect to utilize both our internal product development personnel, in conjunction with key relationships with strategic partners, to source and introduce new products and technologies.

*Penetrate New Channels.* As part of our growth strategy, we also intend to explore alternative consumer channels to introduce new products and to further broaden our product development and brand building efforts. By utilizing additional channels to develop and support new brands in a cost effective and targeted manner, we believe that we can simultaneously manage a product portfolio with products at various stages of development, to maintain a pipeline of products to market on an ongoing basis.

*Capitalize on Infrastructure and Strategic Relationships.* We believe our ability to effectively manage the full range of supply chain activities, including order processing, warehousing, distribution and fulfillment through a network of partners that are competitively selected,

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permits us to quickly capitalize on growth opportunities and dedicate our internal resources to specific initiatives that can create and enhance value.

**Product Development**

Our current plan is to develop products in two categories:

1. Genetic risk assessment tests our genetic tests identify healthy individuals who are at increased risk for early or more severe health risks. These tests may be combined with a complementary product or service to assist in preventing disease or the complications of disease. Some of our other genetic tests are 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.
2. Nutritional Supplements these products support individuals seeking a healthy lifestyle in terms of increased energy, memory, and health.

*Genetic Test Product Pipeline*

Our genetic test development efforts are focused on the following programs:

Weight Management Genetic Test North America and International populations; Consumer channels

Obesity Management Genetic Test North America populations; Medical channel

Osteoarthritis Genetic Test North America populations; Medical channel

Osteoporosis Genetic Test North America and International populations

IL-1 Cardiovascular Genetic Test North America and International populations; Consumer channels

Periodontal Disease Genetic Test (version 2.0) North America and International populations; Medical/Dental channel

*Weight Management and Obesity Management Tests*

Obesity has become an increasingly important clinical and public health challenge worldwide. According to the International Obesity Taskforce estimates, there are about 1.1 billion overweight and 350 million obese individuals worldwide and these numbers are expected to grow significantly in the next decade. In the US, prevalence of obesity has more than doubled in the past 25 years. Nearly two-thirds of adults are believed to be overweight or obese. Overweight and obese subjects are at a higher risk of developing one or more serious medical conditions including hypertension, dyslipidemia, heart diseases and diabetes. In the past few years public health agencies are developing strategies and methods to combat this complex etiology.

Development of obesity is a linear progression in otherwise healthy individuals with an overweight condition as an intermediary condition. Overweight/obesity is characterized as an excess of adipose tissue. The World Health Organization (WHO) and other public health agencies recommend measurement of three different parameters to determine overweight/obesity status for an individual, namely, body mass index (BMI), total body fat and waist/hip ratio (WHR). The cutoff points for each of these parameters have been well defined.

Human obesity arises from the interactions of multiple genes, environmental factors and behaviors and renders management and prevention of obesity very challenging. According to WHO, the lack of physical activity and easy availability of palatable foods are the principle modified characteristic of our



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modern lifestyle that has contributed to obesity worldwide. Despite the fact that we are all exposed to the same environment, not everyone is becoming obese. This could be attributed to individual genetic differences. Genetics determines an individual's susceptibility to become obese when exposed to an unfavorable environment as well as the way a person can respond to diet and exercise. There have been multiple reports describing the heritability of obesity and also exploring genetic association studies to identify the gene-gene, gene environment and gene-diet interactions involved in the development of obesity. These studies have identified a certain number of SNPs that respond to diet or exercise. For example, certain SNPs make some people more sensitive to the amount of fat in the diet, while other SNP's make some people more resistant to exercise-induced weight loss.

Interleukin Genetics has two weight management test products under development. Both involve genetic test panels that include both proprietary and public SNPs. The first is a weight management (WM) test panel designed to assist consumers in more effective management of body weight by guiding diet and exercise programs based on genetic differences in metabolism and fat absorption. The WM test panel uses commonly occurring genetic variations to determine an individual's inherent differences in fat absorption and metabolism, carbohydrate metabolism, and responsiveness to exercise. The information from the WM test panel will assist people in the choice of nutrition and exercise to better maintain a healthy body weight and composition that are appropriate for their individual genotype.

The second program in the weight management area involves a genetic test to assist with medical and surgical management of obese individuals. Interleukin Genetics has proprietary genetic tests that have been shown in multiple studies to predict which obese patients were resistant to weight loss when placed on a medically supervised calorie-restricted diet. We are collaborating with the Geisinger Institute, a leading hospital for medical and surgical management of obesity, to validate our genetic test panel for management of weight loss in obese patients.

*Osteoarthritis Test*

Osteoarthritis (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 5 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 (JSN), painful joint disruption, and functional compromise. The pattern of manifestation of OA in many ways mimics that of osteoporosis in that it is more common in women than in men, and it appears to be related to postmenopausal changes with hormone replacement therapy suppressing cartilage degradation. 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 gene cluster have been previously determined to be associated with multiple clinical phenotypes in OA. Our OA program plans to investigate if 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.

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Interleukin Genetics has recently reported new findings on the genetics of OA at the World Osteoarthritis Congress in 2008. We reported that a panel of genetic markers was highly predictive of which knee OA patients were likely to develop severe disease as they age. The studies were done as a collaboration between the Company and New York University Hospital for Joint Diseases. These findings were similar in two studies. This information allows pharmaceutical companies that are developing the first disease-modifying drugs for OA (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. This genetic information will 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 tested with knee OA and subsequently developed hand problems. We intend to perform additional studies to clarify the clinical utility of these tests and to search for marketing and sales partners to introduce the tests in the medical channel.

*Osteoporosis Test*

Osteoporosis, the most common age-related bone disease, results in a decrease in the strength of the bone that leaves the affected individual more susceptible to fractures. According to the National Institute of Health, 10 million Americans suffer from the disease and another 34 million have low bone mass, placing them at increased risk for the disease. Although osteoporosis occurs in both men and women, it begins earlier and progresses more rapidly in women after menopause. The consequences of osteoporosis can be both physical and financial. Hip and vertebral fractures, which are commonly associated with osteoporosis, have a profound impact on quality of life. We have conducted research projects with major osteoporosis centers. Results of these studies have indicated that a number of small variations in the IL-1 gene cluster, referred to as polymorphisms, are associated with a more rapid rate of bone loss and an increased risk of vertebral fracture in post-menopausal Caucasian women. A genetic risk assessment test could identify women at elevated risk for developing osteoporosis-related vertebral fracture comparatively early in the course of the disease and allow these women and their physicians to pursue risk reduction practices. This would enable nutritional or therapeutic intervention at an early stage, so that bone loss and fractures are minimized or prevented.

We are developing an osteoporosis risk assessment test that combines the IL-1 SNPs with SNPs in other genes known to be associated with bone loss to form a test panel. This test panel has been evaluated in one of the largest clinical databases of fractures caused by osteoporosis, the Study of Osteoporotic Fractures (SOF), directed out of the University of California at San Francisco. The IL-1 SNPs are proprietary to us, and other genes in the panel are either public domain or will be in-licensed as needed. Efforts to develop the osteoporosis risk assessment test and the marketing have been driven in part by our research agreement with Alticor. We have completed a genetic association study on bone changes related to osteoporosis in Japan and have studies on osteoporosis in progress in Korea to determine how the risk assessment test will translate into other ethnic groups in specific environments.

*IL-1 Cardiovascular Test*

In the last decade, studies in men and women have shown that inflammation is an important risk factor for cardiovascular disease. Cardiovascular disease is the leading cause of death in North America. Recent scientific discoveries indicate that some of the risk for cardiovascular disease, including heart attacks, is due to variations in the genes that we inherit. Just as with conventional cardiovascular risk factors such as high cholesterol, smoking and diabetes, the presence of one or more of these DNA variations does not mean that an individual will develop cardiovascular disease. However, using knowledge about genetic risk factors to make informed choices about diet and lifestyle may reduce the risk of developing cardiovascular disease in the future.

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Coronary artery disease (CAD) is a disease in which plaque builds up inside the coronary arteries. These arteries supply your heart muscle with oxygen-rich blood. Plaque is made up of fat, cholesterol, and other substances found in the blood. When plaque builds up in the arteries, the condition is called atherosclerosis. Over time, CAD can weaken the heart muscle and lead to heart failure and arrhythmias. CAD is the most common type of heart disease and it is the leading cause of death in the United States for both men and women. Lifestyle changes, medicines, and/or medical procedures can effectively prevent or treat CAD in most people. Over 105 million American adults have total blood cholesterol values of 200 mg/dL and higher, and 36.6 million American adults have levels of 240 or above. Doctors consider total cholesterol levels of 240 mg/dL or greater high in adults and levels from 200 to 239 mg/dL borderline-high.

Recent studies, including the Jupiter study published in 2008, have shown that excess inflammation is as powerful a predictor of heart attacks as high LDL cholesterol levels. Our heart health genetic test analyzes two IL-1 genes for variations that identify an individual's predisposition for over-expression of inflammation and which may cause an increased risk for cardiovascular disease. This test is not intended to and does not diagnose an existing disease but rather is intended for apparently healthy individuals to help assess their risk for future disease. The IL-1 cardiovascular genetic test is based on data from genetic association studies obtained through collaborations with experts in cardiovascular disease at leading academic institutions. This genetic test provides risk information independent of traditional risk factors, including family history, hypertension and smoking, in assessing risk for heart disease. This test panel was introduced in the Alticor North American channel in the first quarter of 2006. To date, we have determined that the high-risk patterns are commonly found in all major ethnic populations and thus far have been demonstrated to correlate strongly to disease in Caucasian populations. We have data from genetic association studies on cardiovascular disease being analyzed for Korean and Chinese populations to determine how the risk assessment test will translate into other ethnic groups in specific environments.

*General Nutrition Test*

To function properly, cells depend on the action of a vast number of genes. Our general nutrition genetic test analyzes variations in several genes that influence how the body uses certain vitamins and micronutrients. The test identifies individuals who may have altered B vitamin dependent metabolism or reduced response to oxidative stress. It analyzes two genes important to B vitamin utilization and four genes important in managing oxidative stress. This test may be able to identify individuals who might benefit from particular nutritional supplements, and who may be at increased likelihood for health complications. This test is not intended to and does not diagnose a specific disease or assess a specific health condition. It is intended to provide information to individuals who are interested in knowledge that may help them make choices about the consumption of certain vitamins and anti-oxidants.

*B Vitamin Genes:* The genes analyzed related to B vitamin metabolism and transport into cells.

*Oxidative Stress Genes:* The genes analyzed related to oxidative stress have shown that individuals with certain genetic variations in these areas have increased risk for certain types of cancers. By knowing their genetic variations in the production of key enzymes associated with the reduction of oxidative stress, a person can understand better their needs for nutrient and vitamin usage.

Thus our General Nutrition Test panel may help guide a person on decisions about use of vitamins and anti-oxidants.

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**Research with Alticor**

On February 28, 2008, we announced a new research collaboration with Access Business Group International LLC (ABG), a subsidiary of Alticor Inc. The research agreement encompasses four primary areas; osteoporosis, cardiovascular disease, nutrigenomics, and dermagenomics. We will be conducting various clinical studies, which will be fully funded by Alticor. Studies will look to correlate SNP gene variations to the risk of osteoporosis or cardiovascular disease in Asian populations. Other studies will seek to identify genetic factors that influence athletic performance and skin appearance (e.g., wrinkles, elasticity, aging) for the purpose of developing products to enhance healthy aging. Under the terms of the agreement, ABG paid us \$1.2 million for this contract research. In addition, we recognized approximately \$.8 million of deferred receipts, which were unused from prior research agreements with Alticor.

Skin care products comprise several different treatments to manage the appearance of the skin. The worldwide skin care products market is expected to reach more than \$7 billion by 2010. Anti-aging products are expected to retain double-digit growth rates in the next several years, while sales of moisturizers and cleansers are also expected to experience good growth.

Retail sales of sports nutritional products are expected to exceed \$12.7 billion by 2011. Posting a 23% growth rate between 2005 and 2006 from \$4.5 billion to \$5.5 billion, the market sector is being driven by the continued trend for health and wellness and balanced eating amongst serious athletes and the baby boomer generation. Sports beverages are said to be leading the sector, followed by bars, gels and supplements.

**Laboratory Testing Procedure**

To conduct a genetic risk assessment test, the consumer collects cells from inside the cheek on a brush and submits it by mail to our laboratory. Samples are only processed with a requisition signed from a physician. Our clinical laboratory then performs the test following our specific protocol and informs the consumer and, depending on the regulations in the particular state or (in Canada) province, the customer's designated health care provider, of the results.

During 2004, we completed the construction of our genetic testing laboratory (for which we obtained registration under CLIA in 2005) to process the test samples. The regulatory requirements associated with a clinical laboratory are addressed under the section titled "Government Regulation." In early 2007 we obtained a clinical laboratory permit from the State of New York for our Cardiovascular Genetic test.

**Marketing and Distribution Strategy**

Two of our genetic tests are marketed and distributed under the GENSONA® brand through our strategic partnership with Alticor. We market and distribute our PST® tests through sales and marketing partners directly to dentists and periodontists. We are developing our own brand of genetic test to market ourselves or with new partners on a test by test basis.

We intend to develop tests with partners in the pharmaceutical, biotechnology and other industries. Once tests are developed and launched, reimbursement may come from various sources including insurance, partners or directly from consumers. Under our distribution agreement with Alticor, Alticor pays us directly for the processed tests. If in the future we develop products that are sold through the medical channel, our ability to successfully commercialize these products may depend on obtaining adequate reimbursement from third-party payers.



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**Partnerships with Academic Researchers**

We have (or have had) research collaborations at the University of Sheffield (UK), Tufts University, New York University, Harvard University, the Mayo Clinic, California Pacific Medical Center, Boston University, the University of Arkansas, Tongji Medical College (China), University of North Carolina and Yonsei University (Korea). Through these collaborations, we have been able to take advantage of research conducted by these third parties in connection with the development of our genetic risk assessment tests and other possible products.

**Competition Genetic Tests**

The competition in the field of personalized health is defined, but 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 500,000 SNPs to the person's entire genome. There are also technology platform companies that sell SNP testing equipment.

In the case of newly introduced products requiring "change of behavior" (such as genetic risk assessment tests), 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.

**Competition Consumer Supplements**

The business of manufacturing, distributing and marketing nutritional supplements is highly competitive. Many of our competitors are substantially larger and have greater financial resources with which to manufacture and market their products. The barriers to competition are low in the nutritional products markets because the products are generally not protected by patents. In particular, the retail segment is highly competitive. In many cases, competitors are able to offer price incentives for retail purchasers and establish frequent buyer programs for consumers. Some retail competitors also manufacture their own products and therefore they have the ability and financial incentive to promote sales of their own products. Our ability to remain competitive depends on the successful introduction and addition of new offerings to our product line, continued advertising support and reliable service. We will also continue to focus on increased sales and marketing of our current products.

**Government Regulation**

The genetic risk assessment tests that we are developing and our current and future nutritional supplements will be subject to regulation by governmental entities.

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**Genetic Testing Regulation**

*CLIA*

CLIA provides for the regulation of clinical laboratories by the United States Department of Health and Human Services. CLIA requires certification of clinical laboratories that perform tests on human specimens and imposes specific conditions for certification. CLIA is intended to ensure the accuracy, reliability and timeliness of patient test results performed in clinical laboratories in the United States by mandating specific standards in the areas of, among other things, personnel qualification, administration participation in proficiency testing, patient test management, quality control, quality assurance and inspections. CLIA contains guidelines for the qualification, responsibilities, training, working conditions and oversight of clinical laboratory employees. In addition, specific standards are imposed for each type of test that is performed in a laboratory. The categorization of commercially marketed *in vitro* diagnostic tests marketed under CLIA is the responsibility of the FDA. The FDA will assign commercially marketed test systems into one of three CLIA regulatory categories based on their potential risk to human health. Tests will be designated as waived, of moderate complexity or of high complexity. CLIA and the regulations promulgated there under are enforced through quality inspections of test methods, equipment, instrumentation, materials and supplies on a periodic basis. Our commercial laboratory is CLIA-certified for high complexity tests, such as genetic tests.

*Other Laboratory Regulations*

CLIA does not preempt state laws that are more stringent than federal law. Some states independently regulate clinical laboratories and impose standards and requirements in addition to or more stringent than the CLIA regulations. Moreover, some states impose regulations on out-of-state laboratories that conduct tests on their residents. Finally, some foreign jurisdictions may also impose regulations on how we process tests for their residents. We are required to comply with all applicable laboratory regulations.

*Food and Drug Administration*

The FDA regulates the sale and distribution of medical devices, including *in vitro* diagnostic test kits, in interstate commerce. The information that must be submitted to the FDA in order to obtain clearance or approval to market a new medical device varies depending on how the medical device is classified by the FDA and its intended use. Medical devices are classified into one of three classes on the basis of the controls deemed by the FDA to be necessary to reasonably ensure their safety and effectiveness. Class I devices are subject to general controls, including labeling, pre-market notification and adherence to FDA's quality system regulations, which are device-specific good manufacturing practices. Class II devices are subject to general controls and special controls, including performance standards and post-market surveillance. Class III devices are subject to most of the previously identified requirements and to pre-market approval. Most *in vitro* diagnostic kits are regulated as Class I or II devices. Entities that fail to comply with FDA requirements may be subject to enforcement actions, such as recalls, detentions, orders to cease manufacturing and restrictions on labeling and promotion or approval or clearance of new products. In addition, those entities may be subject to criminal and civil penalties.

The FDA presently requires clearance or approval of most diagnostic test kits that are sold to labs, hospitals and doctors, because those kits are considered to be medical devices. However, diagnostic tests that are developed and performed by a CLIA-certified reference laboratory, also known as "home-brew," "in-house" or "laboratory-developed" tests (LDTs), generally have been considered clinical laboratory services.

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The FDA has consistently claimed that it has the regulatory authority to regulate LDTs that are validated by the developing laboratory. However, it has generally exercised enforcement discretion in not otherwise regulating most tests developed by CLIA-certified laboratories. The FDA regularly reviews the regulatory requirements that it applies to LDTs and in September 2006, it published a draft guidance document, which it revised in July 2007, that may be relevant to tests developed by us. This Draft Guidance describes the FDA's current thinking about potential regulation of *In Vitro* Diagnostic Multivariate Index Assays, or IVDMIAs, and provided examples of the types that would be subject to the Draft Guidance. An IVDMIA is defined by the FDA as a device that combines the values of multiple variables using an interpretation function to yield a single patient-specific result intended for use in the diagnosis of a disease or other condition or is used in the cure, mitigation, treatment, or prevention of disease, and provides a result whose derivation is non-transparent and cannot be independently derived or verified by the end user. The FDA has indicated that it believes that most IVDMIAs will be either Class II or III devices.

The degree to which LDTs are regulated by the FDA has also been the focus of Congressional attention and bills have been introduced, which if enacted into law, would mandate that all providers of LDTs provide evidence to the FDA that verifies the analytical validity of such tests. In December 2008, Genentech submitted a Citizen Petition to the FDA in which it requested that the FDA exercise greater oversight of diagnostic tests that are intended to guide therapeutic decisions and to regulate all LDTs. The FDA has not yet responded to that petition.

Although we are not currently offering or developing IVDMIAs, the FDA's interest in or actual regulation of laboratory-developed tests or increased regulation of the medical devices used in laboratory-developed testing could lead to periodic inquiry letters from the FDA and increased costs and delays in introducing new tests, including genetic tests. It is possible that a changing regulatory climate could someday require regulatory clearance or approval prior to the launch of genetic risk assessment tests, which could have a material adverse effect on our business.

*HIPAA Compliance and Privacy Protection*

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 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. Covered Entities must have in place administrative, physical and technical standards to guard against the misuse of individually identifiable health information. Additionally, some state laws impose privacy protections more stringent than those of HIPAA. There are also international privacy laws, such as the European Data Directive, that impose restrictions on the access, use, and disclosure of health information. Any of these laws may impact our business. 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.

*GINA Legislation*

In 2008, the Congress passed and the President signed into law, the Genetic Information Non-discrimination ACT or GINA. This law protects individuals from discrimination due to a genetic predisposition for disease or any other genetic condition. The law protects individuals who take a genetic test from insurance companies or employers that may wish to discriminate against a person due to a genetic condition or predisposition for disease. GINA may also prevent companies from conferring benefits on persons due to a genetic condition.

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**Dietary Supplements Regulation**

The manufacturing, processing, formulation, packaging, labeling and advertising of our nutritional products are subject to regulation by a number of federal agencies, including the FDA and the Federal Trade Commission (FTC). Our activities are also regulated by various state and local agencies where our products are sold.

*FDA*

The FDA is primarily responsible for the regulation of the manufacturing, labeling and sale of our nutritional products as "dietary supplements." The Dietary Supplement Health and Education Act of 1994 (DSHEA) amended the Federal Food, Drug and Cosmetic Act by defining dietary supplements, which include vitamins, minerals, nutritional supplements and herbs, and by providing a regulatory framework to ensure safe, quality dietary supplements and the dissemination of accurate information about such products. Dietary supplements are regulated as foods under DSHEA and the FDA is generally prohibited from regulating the active ingredients in dietary supplements as food additives, or as drugs unless product claims trigger drug status. Generally, dietary ingredients not used in dietary supplements marketed before October 15, 1994, the date of DSHEA's enactment, require pre-market submission to the FDA as evidence of a history of their safe use, or other evidence establishing that they are reasonably expected to be safe. There can be no assurance that the FDA will accept the evidence of safety for any new dietary ingredient that we may decide to use. FDA's refusal to accept such evidence could result in regulation of such dietary ingredients as food additives, requiring FDA approval based on newly conducted, costly safety testing.

DSHEA provides for specific nutritional labeling requirements for dietary supplements and permits substantiated, truthful and non-misleading statements of nutritional support to be made in labeling, such as statements describing general well being from consumption of a dietary ingredient or the role of a nutrient or dietary ingredient in affecting or maintaining structure or function of the body. There can be no assurance that the FDA will not consider particular labeling statements used by us to be drug claims rather than acceptable statements of nutritional support, necessitating the preparation and submission by us of a costly new drug application. It is also possible that the FDA could allege false statements were submitted to it if structure/function claim notifications were either non-existent or so lacking in scientific support as to be plainly false.

In addition, the DSHEA authorizes the FDA to promulgate current good manufacturing practices (cGMPs) specific to the manufacturing of dietary supplements, to be modeled after food cGMPs. We currently use a third-party manufacturer for our dietary supplement products, which manufacturer must comply with food cGMPs.

Dietary supplements are also subject to the Nutrition, Labeling and Education Act (NLEA), which regulates health claims, ingredient labeling and nutrient content claims characterizing the level of a nutrient in a product. NLEA prohibits the use of any health claim for dietary supplements unless the health claim is supported by significant scientific agreement and is pre-approved by the FDA.

In certain markets, including the United States, claims made with respect to dietary supplements may change the regulatory status of our products. For example, in the United States, the FDA could possibly take the position that claims made for some of our products make those products new drugs requiring approval or compliance with a published FDA over the counter (OTC) monograph. If the FDA were to assert that our product claims cause them to be considered new drugs or fall within the scope of OTC regulations, we would be required to file a new drug application, comply with the applicable monographs, or change the claims made in connection with those products.

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*FTC*

The FTC regulates the marketing practices and advertising of all our products. In recent years, the FTC instituted enforcement actions against several dietary supplement companies for false and misleading marketing practices and advertising of certain products. 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.

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 by the FDA or the FTC.

**Other 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 a website at [www.ilgenetics.com](http://www.ilgenetics.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 our website 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 website is not incorporated by reference into this Form 10-K. We have included our website address only as an inactive textual reference and do not intend it to be an active link to our website.

**Item 1A. Risk Factors**

*The current economic conditions and financial market turmoil could adversely affect our business and results of operations.*

As widely reported, economic conditions and financial markets have been experiencing extreme disruption in recent months, including, among other things, extreme volatility in prices of publicly trade securities, severely diminished liquidity, severely restricted credit availability, rating downgrades of certain investments and declining valuations of others. Governments have taken unprecedented actions intended to address these extreme market conditions. Many economists have predicted that the United States economy, and possibly the global economy, may enter into a prolonged recession. 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.*

Our industry 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 than we do. 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 before we do. If we do not discover genes that are linked to a health risk, characterize their functions, develop genetic tests and related information services based on such discoveries, obtain regulatory and other approvals and launch these services, or products

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before our competitors, then our ability to generate sales and revenue will be reduced or eliminated, and could make our products obsolete. 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.*

Competition in the field of personalized health is defined, but the markets and customer base are not well established. Adoption of technologies in this emerging field requires substantial market development. Although our primary customer, Alticor, has begun to develop the direct-to-consumer market for personalized health, the overall market is unproven and there can be no assurance that other channels for marketing our products can be developed. As a result, there can be no assurance that our products will be successful upon launch 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, resulting in additional losses to us.

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. When we identify a gene or genetic marker that may influence risk for disease, we may conduct clinical trials to confirm the initial scientific discovery and to establish the scientific discovery's clinical utility in the marketplace. The results of these clinical trials could limit or delay our ability to bring a test to market, reduce a test's acceptance by our potential customers or cause us to cancel the program, any of which would limit or delay sales and cause additional losses to us. The marketplace may never accept our products, and we may never be able to sell our products at a profit. Further, we may not complete development of or commercialize our other genetic risk assessment tests.

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. Our efforts to commercialize our intellectual property have had little success outside of the Alticor channel to date. 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.

*There are numerous competitors with various and different business models and motivations.*

Our potential competitors in the United States and abroad are numerous and include, among others, major pharmaceutical and diagnostic companies, specialized biotechnology firms, universities and other research institutions. Many of our potential competitors have considerably greater financial, technical, marketing and other resources than we have, which may allow these competitors to discover important genes or successfully commercialize these discoveries before us. If we do not discover genes that are linked to a health risk, characterize their functions, develop genetic tests and related information services based on such discoveries, obtain regulatory and other approvals, and launch these services or products before competitors, we could be adversely affected. Additionally, some of our competitors receive data and funding from government agencies. To the extent our competitors receive data and funding from those agencies at no cost to them, they may have a competitive advantage over us.

*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. To date, our tests have been developed on

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behalf of, and marketed to, our primary customer, Alticor. In order to develop new customers and markets for our genetic risk assessment tests, we will be required to invest substantial additional capital and other resources into further developing these tests.

*We currently have only one distributor for our genetic risk assessment tests and it is our largest shareholder..*

To date, we have had only one distributor of any size for our genetic risk assessment tests, Alticor, which is also our largest stockholder. We have limited experience and capabilities with respect to distributing, marketing and selling genetic risk assessment tests on our own. We have relied and plan to continue to rely significantly on our sales, marketing and distribution arrangements with Alticor, which seek to leverage Alticor's established marketing and distribution channels. If Alticor does not successfully market our products, sales will decrease and our losses will increase. 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. As a result of our dependence upon Alticor, in some cases, we have and may continue to dedicate our resources toward the development of genetic test panels that have limited or no exclusive intellectual property benefit to us, but meet specific needs of Alticor.

*Our consumer products business is heavily concentrated on one customer.*

We currently market and sell our line of branded nutritional supplements to major discount retailers, drugstores, grocery stores and warehouse clubs in the United States, but 52% of our revenues in this business segment is derived from sales to one customer. Since this business is dependent upon consumers, we rely on one customer to a large extent to assist us in our promotional and advertising materials, as well as placement of our products in its stores. We are challenged constantly to develop innovative ways to maintain the interest and attention of our existing consumers and attract new consumers, thereby enhancing our largest customer's interest in marketing and distributing our products. Further, we are reliant upon contract manufacturers, logistics companies and technology partners to source and distribute these nutritional products. In each case, problems with these third parties could result in manufacturing, logistical, sourcing and distribution problems that could have a material adverse effect on our consumer products business.

*The profitability of our consumer products businesses may suffer if we are unable to establish and maintain close working relationships with our customers.*

For the year ended December 31, 2008, approximately 74% of our revenues were derived from our consumer products business, which consists of developing, marketing and selling nutritional supplements and products into retail consumer channels. This business relies to a great extent on close working relationships with our customers, rather than long-term exclusive contractual arrangements. Customer concentration in this business is relatively high and one customer accounted for approximately 52% of our revenues in that business. In addition, customers of our branded and private label consumer products, generally large food, drug and mass retailers, purchase those products through purchase orders only and are not obligated to make future purchases. We therefore rely on our ability to deliver quality products on time in order to retain existing and generate new customers. If we fail to meet our customers' needs or expectations, whether due to manufacturing issues that affect quality or capacity issues that result in late shipments, we will harm our reputation and customer relationships and likely lose customers. Additionally, if we are unable to maintain close working relationships with our customers, sales of all of our products and our ability to successfully launch new products could suffer. The loss of a major customer and the failure to generate new accounts could significantly reduce our revenues or prevent us from achieving projected growth.

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*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 operations of \$6.9 million in 2006, \$6.2 million in 2007 and \$6.7 million in 2008. As of December 31, 2008, our accumulated deficit was \$81 million. Our losses result primarily from research and development, selling, general and administrative expenses and amortization of intangible assets. Although we have recently begun to generate revenues from sales of our genetic risk assessment tests and nutritional products, these 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.

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

Changes in existing regulations at either the state or federal level could require advance regulatory approval of genetic risk assessment tests, resulting in a substantial curtailment or even prohibition of our activities without regulatory approval. If our genetic tests ever require regulatory approval, on either a state or federal level, then the costs of introduction may increase or marketing and sales of products may be significantly delayed. We currently are performing the testing procedures in our own CLIA-Certified genetic testing laboratory. There are additional state and local regulations governing the operation of this laboratory. An inability to maintain our CLIA certification or comply with any applicable state or local requirements could reduce our anticipated revenue and increase our net losses. In September 2006, the FDA issued draft guidelines pursuant to which it would require pre-market review of certain types of in vitro diagnostic tests. Although we do not think that our current genetic tests and those in development are covered by the draft guidelines, the FDA is currently evaluating and could assert pre-market review of all types of genetic tests.

*An inability to manage our growth or successfully integrate acquired businesses could adversely affect our business.*

Our business is in a period of growth, with total revenues increasing from \$4.7 million in 2006 to \$10.0 million in 2008 largely due to the acquisition of the Alan James Group in August 2007, as well as revenue from Alticor, a related party. We may make more acquisitions in the future. The successful integration of acquired businesses requires a significant effort and expense across all operational areas, including sales and marketing, research and development, manufacturing, finance and administration and information technologies. Our future operating results will depend on the ability of our management to continue to implement and improve our research, product development, manufacturing, sales and marketing and customer support programs, enhance our operational and financial control systems, expand, train and manage our employee base, integrate acquired businesses, and effectively address new issues related to our growth as they arise. There can be no assurance that we will be able to manage our recent or any future expansion or acquisition successfully, and any inability to do so could have a material adverse effect on our results of operations.

*Intangible assets that we have recorded in connection with our acquisition of the Alan James Group could become impaired, requiring us to take significant charges against earnings.*

In connection with the accounting for our acquisition of the Alan James Group, we have recorded a significant amount of intangible assets. Under current accounting guidelines, we must assess, at least annually and potentially more frequently, whether the value of intangible assets has been impaired. Any reduction or impairment of the value of intangible assets will result in a charge against earnings, which could materially adversely affect our reported results of operations in future periods.



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*If we deliver products with defects, our credibility may be harmed, market acceptance of our products may decrease and we may be exposed to liability in excess of our product liability insurance coverage.*

The manufacturing and marketing of consumer, professional diagnostic and nutritional products involve an inherent risk of product liability claims and associated negative publicity. In addition, product development and production of our products are extremely complex and could expose our products to defects. Any defects could harm our credibility and decrease market acceptance of our products. In particular, our marketing of nutritional products may cause us to be subject to various product liability claims, including, among others, claims that the nutritional products have inadequate warnings concerning side effects and interactions with other substances.

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 earnings from the sale of branded nutritional supplements may decline as a result of general industry trends and our increased spending on advertising and promotion in order to maintain our sales of these products.*

In 2008, the aggregate sales of our brand name nutritional products, including among others Ginsana®, Ginkoba , and Venastat® demonstrated a slight increase from the prior year. We believe that these products are performing consistently within these segments; and continue to support the products with advertising; however, some of the segments in which we compete have shown a decline year over year. We are subject to future distribution review and possibly loss (just like any other product carried by retailers) as retailers conduct their annual category reviews. We face competition with private label offerings as well as other branded product introductions, while our opportunities for new distribution on the existing product lines are limited. As a result, given the competitive and current economic situation in the U.S., we do not expect sales growth of our existing nutritional products and may even experience declines in the future.

*Failure to appropriately respond to changing consumer preferences and demand for new products could significantly harm our customer relationships and product sales.*

Our nutritional products business is particularly subject to changing consumer trends and preferences. Our continued success depends in part on our ability to anticipate and respond to these changes, and we may not be able to respond to these changes in a timely or commercially appropriate manner. Our failure to accurately predict these trends could negatively impact consumer opinion of us as a source for the latest products, which could harm our customer relationships and cause losses to our market share. The success of our new product offerings depends upon a number of factors, including our ability to:

- accurately anticipate customer needs;
- innovate and develop new products;
- successfully commercialize new products in a timely manner;
- price our products competitively;

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manufacture and deliver our products in sufficient volumes and in a timely manner; and

differentiate our product offerings from those of our competitors.

If we do not introduce new products or make enhancements to our current products to meet the changing needs of our customers in a timely manner, some of our products could become obsolete, which could have a material adverse effect on our revenues and operating results.

*Sales of our specific nutritional supplements could be negatively impacted by media attention or other news developments that challenge the safety and effectiveness of those specific nutritional products.*

Most growth in the nutritional products industry is attributed to new products that tend to generate greater attention in the marketplace than do older products. 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. Conversely, 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. Many of our nutritional products serve well-established market segments and, absent unforeseen new developments or trends, are not expected to benefit from rapid growth and may, in fact, suffer flat or declining sales as they mature.

*Period-to-period comparisons of our operating results may not be meaningful due to acquisitions.*

We completed the acquisition of the business of the Alan James Group in 2006, which makes it difficult to analyze our pre-acquisition and post-acquisition results of operations and to compare them from period to period. Period-to-period comparisons of our results of operations may not be meaningful due to this acquisition and possible future acquisitions and are not indications of our future performance. Any future acquisitions will also make our results difficult to compare from period to period in the future.

*We may be delisted from the NYSE Alternext US LLC resulting in a more limited market for our common stock.*

In December 2008, we were notified of our failure to comply with the NYSE Alternext US continued listing standards under section 1003(a)(iii) of the Company Guide because our stockholders' equity was less than \$6,000,000 and we have had losses from continuing operations and net losses in our five most recent fiscal years. As of December 31, 2008 our stockholders' equity was \$4.5 million. On January 27, 2009, we submitted to the exchange a plan to regain compliance with the exchange's continued listing requirements. This plan consists of several elements, but is primarily focused on increasing the sales of our products and services and raising additional equity capital. If our plan is not accepted, if we do not make progress toward regaining compliance consistent with our plan, or if we are not in compliance at the end of the plan period, then our common stock may be delisted from the exchange. If the NYSE Alternext US delists our common stock, we anticipate that our common stock would be quoted on the OTC Bulletin Board or possibly the so-called "pink sheets." Even if our common stock is quoted on such systems, a delisting by the NYSE Alternext US could hurt our investors by reducing the liquidity and market price of our common stock. Additionally, a 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 access public capital markets.

*If we fail to obtain additional capital, or obtain it on unfavorable terms, then we may have to end our research and development programs and other operations.*

We expect that our current and anticipated financial resources are adequate to maintain our current and planned operations for at least the next twelve months. If we are not generating sufficient

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cash or cannot raise additional capital during the next twelve months, we will be unable to fund our business operations and will be required to seek other strategic alternatives.

Our future capital needs depend on many factors. We may need capital for the commercial launch of additional genetic tests, continued research and development efforts, obtaining and protecting patents and administrative expenses. Based on current economic conditions additional financing may not be available when needed, or, if available, it may not be available on favorable terms. If we cannot obtain additional funding on acceptable terms when needed, we may have to discontinue operations, or, at a minimum, curtail one or more of our research and development programs.

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

Entering into strategic alliances, in addition to our relationship with Alticor, for the development and commercialization of products and services based on our discoveries is an important element of our business strategy. We anticipate entering into additional collaborative arrangements with Alticor. In addition, we may enter into strategic arrangements with other parties in the future. We face significant competition in seeking appropriate collaborators. If we fail to maintain our existing alliance with Alticor or 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.

*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 partly 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 twenty 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. If the patents are not issued to us, we can only rely on common law trademark rights to protect these trademarks and our trade dress. Additionally, in general nutritional products are not patentable and instead we must rely on trademark rights to protect our products. Common law trademark rights do not provide the same level of protection as afforded by a United States federal registration of a trademark. Also, common law trademark rights are limited to the geographic area in which the trademark is actually used. 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

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addition, competitors may challenge any patents issued to us, and these patents may subsequently be narrowed, invalidated or circumvented.

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.

If third parties believe our products or services infringe upon their patents, they could bring legal proceedings against us seeking damages or seeking to enjoin us from testing, manufacturing or marketing our products or services. Any litigation could result in substantial expenses to us and significant diversion of attention by our technical and management personnel. Even if we prevail, the time, cost and diversion of resources of patent litigation would likely damage our business. If the other parties in any patent litigation brought against us are successful, in addition to any liability for damages, we may have to cease the infringing activity or obtain a costly license.

*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 would decrease demand for our products and result in substantial losses.

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

Our success substantially 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

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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 Alticor enters a business in competition with ours, certain of our directors might have a conflict of interest.*

In conjunction with our strategic alliance with Alticor, we have agreed to certain terms for allocating opportunities as permitted under Section 122(17) of the Delaware General Corporation Law. This agreement, as set forth in the Purchase Agreement, regulates and defines the conduct of certain of our affairs as they may involve Alticor as our majority stockholder and its affiliates, and our powers, rights, duties and liabilities and those of our officers and directors in connection with corporate opportunities.

Except under certain circumstances, Alticor and its 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 Alticor or one of our directors appointed by Alticor and its affiliates acquire knowledge of a potential transaction or matter that may be a corporate opportunity for both Alticor, its affiliates and us, to the fullest extent permitted by law, Alticor and its affiliates will not have a duty to inform us about the corporate opportunity. In addition, will not be liable to us or to you 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 Alticor 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 this agreement 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 Alticor or its affiliates.

*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. As of December 31, 2008, we had gross net operating loss and research tax credit carryforwards of approximately \$59.3 million and \$1.2 million, respectively, for federal income tax purposes, expiring in varying amounts through the year 2028. As of December 31, 2008, we had gross net operating loss and research tax credit carryforwards of approximately \$23.6 million and \$0.6 million, respectively, for state income tax purposes, expiring in varying amounts through the year 2013. 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 two such ownership changes. One change arose in March 2003 and the other was in June 1999. As a result, our net operating loss carryforwards that relate to periods prior to March 2003 and June 1999 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.

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*Our Series A Preferred Stock has certain rights that are senior to common stockholder rights and this may reduce the value of our common stock.*

Our Series A Preferred Stock, which was issued to Alticor in March 2003, accrues dividends at the rate of 8% of the original purchase price per year, payable only when and if declared by the Board of Directors and are non-cumulative. If we declare a distribution, with certain exceptions, payable in securities of other persons, evidences of indebtedness issued by us or other persons, assets (excluding cash dividends) or options or rights to purchase any such securities or evidences of indebtedness, then, in each such case the holders of the Series A Preferred Stock shall be entitled to a proportionate share of any such distribution as though the holders of the Series A Preferred Stock were the holders of the number of shares of our common stock into which their respective shares of Series A Preferred Stock are convertible as of the record date fixed for the determination of the holders of our common stock entitled to receive such distribution. As of December 31, 2008, our Series A Preferred Stock was convertible into 28,160,200 shares of our common stock, which is subject to standard antidilution protections as well as adjustments in the event we issue any shares of capital stock for a price lower than the conversion price of the Series A Preferred Stock.

In the event of any liquidation, dissolution or winding up of our company, whether voluntary or involuntary, the holders of Series A Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of our assets or surplus funds to the holders of our common stock by reason of their ownership thereof, the amount of two times the then-effective purchase price per share, as adjusted for any stock dividends, combinations or splits with respect to such shares, plus all declared but unpaid dividends on such share for each share of Series A Preferred Stock then held by them. After receiving this amount, the holders of Series A Preferred Stock shall participate on an as-converted basis with the holders of common stock in any of our remaining assets.

*Because a single stockholder has a controlling percentage of our voting power, other stockholders' voting power is limited.*

As of December 31, 2008, Alticor was our largest stockholder and owned, or had rights to acquire, approximately 58.9% of our outstanding common stock. Accordingly, this stockholder may be able to determine the outcome of stockholder votes, including votes concerning the election of directors, the adoption or amendment of provisions in our Certificate of Incorporation or By-Laws and the approval of certain mergers and other significant corporate transactions, including a sale of substantially all of our assets. This stockholder may make decisions that are adverse to other stockholders' interests. This ownership concentration may also adversely affect the market price of our common stock. Four of our seven directors are individuals chosen by this single stockholder and this stockholder has the right to choose an additional director. These directors might pursue policies in the interest of this single stockholder to the detriment of our other stockholders.

*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.

**Item 1B. Unresolved Staff Comments**

None.

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**Item 2. *Properties***

Our offices and laboratories are located at 135 Beaver Street, Waltham, Massachusetts 02452. In February 2004, we entered into a new lease expanding this space to approximately 19,000 square feet and extended the term of the lease through March, 2009. In November, 2008 we entered into an amendment to our current lease extending the term through March, 2014. As part of our acquisition of the Alan James Group assets in August, 2006, we also acquired a lease for 4,156 square feet of office space in Boca Raton, Florida, which expires in June, 2009. We are currently reviewing options to extend the lease for office space in Boca Raton, Florida.

**Item 3. *Legal Proceedings***

There are currently no material legal proceedings against the Company.

**Item 4. *Submission of Matters to a Vote of Security Holders***

No matters were submitted to a vote of security holders during the fourth quarter of the year ended December 31, 2008.

Table of Contents**PART II****Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities****Market Information**

Our common stock currently trades under the symbol "ILI" on the NYSE Alternext US LLC. The following table sets forth, for the periods indicated, the high and low sales prices for our common stock, as reported by the NYSE Alternext US LLC.

	High	Low
<b>2008:</b>		
First Quarter	\$ 1.50	\$ 1.00
Second Quarter	\$ 1.60	\$ 1.19
Third Quarter	\$ 1.45	\$ 0.82
Fourth Quarter	\$ 1.03	\$ 0.20
	<b>High</b>	<b>Low</b>
<b>2007:</b>		
First Quarter	\$ 5.75	\$ 4.12
Second Quarter	\$ 4.41	\$ 1.77
Third Quarter	\$ 1.98	\$ 1.00
Fourth Quarter	\$ 2.25	\$ 1.02

**Stockholders**

As of February 12, 2009, there were approximately 125 stockholders of record and according to our best estimate, approximately 3,000 beneficial owners of our common stock.

**Dividends**

We have not declared any dividends to date and do not plan to declare any dividends on our common stock in the foreseeable future.

**Sale of Unregistered Securities**

None that have not been previously reported.

**Issuer Purchases of Equity Securities**

None.



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#### **Item 6. Selected Consolidated Financial Data**

The following table sets forth selected consolidated financial data as of and for each of the five years ended December 31, 2008. The selected consolidated financial data as of and for each of the five years in the period ended December 31, 2008 has been derived from our audited consolidated financial statements. This data should be read in conjunction with our audited consolidated financial statements and related notes that are included elsewhere in this Annual Report on Form 10-K and with "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in Item 7 below.

	Year Ended December 31,				
	2008	2007	2006	2005	2004
<b>Statement of Operations Data:</b>					
Revenue	\$ 10,014,980	\$ 9,700,493	\$ 4,731,026	\$ 22,877	\$ 34,671
Gross profit	5,277,062	5,001,047	1,888,429	22,877	34,320
Operating Expenses:					
Research and development	3,560,002	2,928,249	3,262,349	3,127,086	4,078,316
Selling, general and administrative	7,034,368	6,367,973	4,506,799	2,916,858	2,636,045
Amortization of intangible assets	1,335,438	1,651,244	646,065	36,921	21,992
Total operating expenses	11,929,808	10,947,466	8,415,213	6,080,865	6,736,353
Loss from operations	(6,652,746)	(5,946,419)	(6,526,784)	(6,057,988)	(6,702,033)
Net loss	\$ (6,651,385)	\$ (6,218,785)	\$ (6,946,756)	\$ (6,570,824)	\$ (7,246,200)
Net loss attributable to common stockholders	\$ (6,651,385)	\$ (6,218,785)	\$ (6,946,756)	\$ (6,570,824)	\$ (7,246,200)
Basic and diluted net loss per common share	\$ (0.21)	\$ (0.22)	\$ (0.27)	\$ (0.28)	\$ (0.31)

	As of December 31,				
	2008	2007	2006	2005	2004
<b>Selected Balance Sheet Data:</b>					
Cash and cash equivalents	\$ 4,952,481	\$ 7,646,468	\$ 10,082,919	\$ 3,415,174	\$ 4,528,425
Working capital	\$ 3,199,323	\$ 3,849,973	\$ 5,602,760	\$ 574,914	\$ 3,276,072
Total assets	\$ 12,154,388	\$ 16,385,949	\$ 22,630,285	\$ 4,970,075	\$ 6,185,501
Long term debt and capital lease obligations, less current portion	\$ 4,000,000			\$ 1,671,588	\$ 1,212,691
Stockholders' equity	\$ 4,482,427	\$ 10,192,414	\$ 13,785,931	\$ 283,745	\$ 3,527,507

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**Item 7. 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 "Selected Consolidated Financial Data" and the audited Consolidated Financial Statements and the notes thereto included elsewhere in this document.*

**General Overview and Trends**

We are a genetics-focused personalized health company that develops preventive consumer products and genetic tests for sale to the emerging personalized health market. Our vision is to build a leading personalized health and wellness company using the science of applied genetics to empower people to understand the genetic components of their health, to provide physicians guidance on patient care and to provide drug developers the tools necessary to create new, innovative therapeutic products.

We currently have two primary business segments that include:

Personalized Health Segment this segment conducts, researches, develops, market and sells genetic test panels primarily in inflammatory and metabolic areas to provide better insight into health, wellness and disease.

Consumer Products Segment comprising the Alan James Group (AJG) business, is focused on developing, selling and marketing nutritional supplements and products into retail consumer channels.

These two segments contribute toward our overall mission of developing tests and products that can help individuals improve and maintain their health through preventive measures. We plan to pursue this by:

developing genetic risk assessment tests for use in multiple indications, countries and various demographics in our Personalized Health Segment;

processing genetic risk assessment tests in our Clinical Laboratory Improvement Act of 1988 (CLIA) certified lab or in those of sublicensees in our Personalized Health Segment; and

developing and acquiring nutritional products to be distributed in multiple consumer channels in our Consumer Products Segment.

In 2006, sales of our personalized health products began under marketing and other business arrangements with Alticor. For 2008, Alticor represents a significant customer representing virtually all of our Personalized Health Segment revenues and over 25% of consolidated revenues.

Our Consumer Products Segment sells branded nutritional products, including Ginsana®, Ginkoba , and Venastat® through the nation's largest food, drug and mass retailers. The addition of AJG added substantial revenues to our business and in the year ended December 31, 2008, AJG represented over 74% of our consolidated revenues. Customer concentration in our Consumer Products Segment is high and our largest customer accounted for approximately 52% of revenues in that segment. In 2006, the addition of AJG also added to the selling general and administrative costs necessary to run a consumer products business and it added substantial amortization of intangible assets acquired in the purchase. In the year ended December 31, 2008, amortization of intangible assets was approximately \$1.3 million compared to less than \$54,000 in the year prior to the acquisition. For the year ended December 31, 2007, amortization of intangible assets was approximately \$1.7 million. We expect such amortization expense will continue in 2009 and beyond.

We have traditionally spent approximately \$3-4 million annually on research and development. We currently anticipate that range of spending to continue into 2009. Our current development programs focus on obesity, heart disease, osteoporosis, osteoarthritis, skin aging, sports nutrition and weight management genetic risk assessment tests, as well as new proprietary supplements for distribution

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through our Consumer Products Segment. We expect that these programs will also lead to the personalized selection of nutritional and therapeutic products and provide consumers and healthcare professionals with better preventive product alternatives. We are in the process of developing our own brand of genetic test products for launch with partners and by ourselves. As a result, corporate selling, general, marketing and administrative expenses associated with the launch for this new brand of genetic test products is likely to increase in 2009. We currently have borrowings available under our credit line of \$10.3 million, which permits borrowing any time prior to March 31, 2010. We expect to be able to fund our operations through at least the next twelve months with revenue from product sales and borrowings from our credit facility. Current economic conditions may negatively affect our sales which may impact the funding of projects in development. We will monitor our spending accordingly.

In March 2003, we entered into a research agreement with Alticor to develop genetic tests and software to assess personalized risk and develop and use screening technologies to validate the effectiveness of the nutrigenomic consumables Alticor is developing. In March 2005 and in March 2007, we entered into new agreements with Alticor to continue the research. In June 2004, we entered into another research agreement with Alticor to conduct research into the development of a test to identify individuals with specific genetic variations that affect how people gain and maintain weight. This project was completed during 2006. In June 2006, we entered into another agreement with Alticor to perform association studies on composite genotypes to skin inflammatory response. As of December 31, 2008, the research agreements described above have been completed. See financial statement footnote 4 for a discussion of our strategic alliance with Alticor.

On February 25, 2008, we entered into a new research agreement with Access Business Group International LLC (ABG), a subsidiary of Alticor Inc. The research agreement encompasses four primary areas: osteoporosis, cardiovascular disease, nutrigenomics, and dermagenomics. We will be conducting various clinical studies, which shall be fully funded by Alticor.

Some of these studies aim to correlate SNP gene variations to the risk of osteoporosis or cardiovascular disease in Asian populations. Other studies conducted in North American populations will seek to identify genetic factors that influence athletic performance (nutrigenomics) and skin health, such as wrinkles, elasticity, aging (dermagenomics), for the purpose of developing products to enhance healthy aging. Under the terms of the agreement, ABG paid us \$1.2 million during 2008 for the research. In addition, we recognized approximately \$800,000 of deferred receipts which were unused from prior research agreements with Alticor.

In our Personalized Health Segment, the competition is defined, but the markets and customer base are not well established. Adoption of such technologies by consumers requires substantial market development and customer education. We have placed a significant focus of this effort in our relationship with our primary customer, Alticor, a significant direct marketing company. Alticor has begun to develop the direct-to-consumer market, however, the overall market is unproven and our challenge in 2009 and beyond will be to work to develop this market. We cannot predict any fluctuations we may experience in our test revenues or whether revenues derived from Alticor related to the heart health and general nutrition genetic tests will be sustained in future periods. In order to help facilitate the sales of tests by our number one customer, we have engaged a senior executive, who is based in Michigan on site at Alticor.

In our Consumer Product Segment, the nutritional products and supplement industry is characterized by rapid and frequent changes in demand for products and new product introductions. The success of new product offerings depends upon a number of factors, including: accurately anticipating customer needs; innovating and developing new products; successfully commercializing new products in a timely manner; pricing our products competitively; manufacturing and delivering our products in sufficient volumes and in a timely manner; and differentiating our product offerings from those of our competitors.

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In 2008, the aggregate sales of our brand name nutritional products, including Ginkoba , Ginsana®, and Venastat® demonstrated a slight increase from the prior year which we believe is due to an increase in advertising spend. We face competition with private label offerings as well as other branded product introductions. Further, our opportunities for new distribution on the existing product lines are limited. We believe our growth is also partly due to consumers focusing their buying patterns on retailers that are more affordable, which is where our products are sold. Increased growth, we believe will be more dependent on our ability to adapt to changing consumer trends with the introduction of new products, making customers more aware of our products or improvements to existing products. The financial downturn of the economy most likely has slowed our growth in our Consumer Product Segment.

**Liquidity and Capital Resources**

As of December 31, 2008, we had cash and cash equivalents of \$5.0 million and borrowings available under our credit facilities of \$10.3 million which permits borrowing at any time prior to March 31, 2009. On March 11, 2009, our credit line was extended to permit borrowing at any time prior to March 31, 2010.

Cash used in operations was \$5.6 million for the year ended December 31, 2008 as compared to \$2.5 million for the year ended December 31, 2007. 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. A significant use of cash in the year ended December 31, 2008 was a payment of \$1.2 million, relating to the settlement of purchase obligations with the Alan James Group, \$.6 million of which had been accrued prior to 2008. We also recognized as revenue \$.9 million of previously deferred cash receipts.

Cash used in investing activities was \$1.1 million for the year ended December 31, 2008 compared to \$.3 million for the year ended December 31, 2007. The most significant use of cash in investing activities was the settlement of claims related to the acquisition of the assets and business of the Alan James Group as described above. As a result of the settlement, we paid additional consideration of \$.6 million. Capital additions were \$.2 million for the year ended December 31, 2008 compared to \$39 thousand for the year ended December 31, 2007. The increase in capital additions consists of furniture, computers and office equipment associated with increased employee headcount in 2008. In addition, we completed substantial improvements to our computer servers. Increases in other assets consist primarily of capitalized patent costs which were \$.4 million for the year ended December 31, 2008 as compared to \$.2 million for the year ended December 31, 2007. We continue to incur increased expenses in building our patent portfolio.

Cash provided by financing activities was \$4.0 million for the year ended December 31, 2008 compared to \$.4 million for the year ended December 31, 2007. On June 10, 2008 we received proceeds from the issuance of a note payable in the amount of \$4.0 million under an existing credit facility where no such proceeds were received during the year ended December 31, 2007. In addition, during the year ended December 31, 2008, we received \$10,000 from the exercise of stock options and stock purchases through the employee stock purchase plan. During the year ended December 31, 2007 we received \$.4 million from the exercise of stock options and stock purchases through the employee stock purchase plan and \$53,000 from our rights offering completed in January, 2007.

In December 2008, we were notified of our failure to comply with the NYSE Alternext US LLC (the Exchange) continued listing standards under section 1003 of the Company Guide. Specifically, the Exchange noted our failure to comply with section 1003(a)(iii) of the Company Guide because our stockholders' equity was less than \$6,000,000 and we had losses from continuing operations and net losses in our five most recent fiscal years. The notice was based on a review by the Exchange of publically available information, including the Company's quarterly report on Form 10-Q for the

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quarter ended September 30, 2008. As of December 31, 2008 the Company's stockholders equity was \$4.5 million. On January 27, 2009 we submitted a plan to the exchange to meet the continued listing requirements. The Exchange has 45 days in which to decide whether the plan is acceptable. The plan consists of several elements, but is primarily focused on increasing the sales of our products and services and raising additional equity capital. If our plan is not accepted, we do not make progress toward compliance consistent with the plan, or we are not in compliance at the end of the plan period, then our common stock may be subject to delisting proceedings by the Exchange.

In January, 2009 we purchased equipment which will allow for a higher volume genetic analysis in our commercial laboratory resulting in a significantly lower per test cost. We expect the equipment will to be validated and installed in the second quarter of 2009. The total cost of the equipment is approximately \$.4 million, with an additional \$.1 million for software development. We currently do not have any commitments for any additional material capital purchases.

Operating cash is currently generated by sales of consumer products, genetic tests, royalties, and reimbursements for funded research. The amount of cash we generate is not sufficient to fund our operations. In addition to funds generated by our income, we have available a \$10.3 million credit line with Alticor, our major investor. Cash received by us from customers and paid to vendors is relatively stable from period to period due to the nature of our consumer products business. Clinical studies and other research and development activities may require cash outflows that depend on the timing of activities.

We believe that our cash on hand and line of credit availability from Alticor will fund our operations and meet our overall strategic plan for at least the next twelve months. We may need to raise additional capital, if market conditions permit, to continue investment in new product development, improving our distribution channels, maintain our listing on the NYSE Alternext US, and other aspects of our overall strategic plan.

We have no debt covenants as part of our borrowing facility with Alticor. We currently have a balance owed on our line of credit of \$4.0 million, which is reflected as debt on our balance sheet. We anticipate using additional funds available on our credit facility in the foreseeable future. The current status of the financial markets may affect our ability to raise additional capital.

A summary of our contractual obligations as of December 31, 2008 is included in the table below:

Contractual Obligations	Total	Payments Due By Period (000's)			
		Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Long-Term Debt Obligations	\$4,000	\$	\$4,000	\$	\$
Operating Lease Obligations	2,477	510	913	936	118
<b>TOTAL</b>	<b>\$6,477</b>	<b>\$ 510</b>	<b>\$ 4,913</b>	<b>\$ 936</b>	<b>\$ 118</b>

Table of Contents**Results of Operations (000's)**

	<b>Twelve Months Ended December 31,</b>	
	<b>2008</b>	<b>2007</b>
<b>Personalized health:</b>		
Genetics Testing	\$ 409	\$ 779
Contract research and development	2,061	2,028
Royalty and Other	151	20
<b>Segment total</b>	<b>\$ 2,621</b>	<b>\$ 2,827</b>
Consumer products	7,394	6,873
<b>Total Revenue</b>	<b>\$ 10,015</b>	<b>\$ 9,700</b>
Cost of revenue	\$ 4,738	\$ 4,699
<b>Gross margin</b>	<b>\$ 5,277</b>	<b>\$ 5,001</b>
Gross margin percent	52.7%	51.6%

***Twelve Months Ended December 31, 2008 and December 31, 2007***

Total revenue for the year ended December 31, 2008 was \$10.0 million compared to \$9.7 million for the year ended December 31, 2007. The increase of \$.3 million, or 3.2%, is primarily attributable to an increase in consumer product revenue, an increase in royalty revenue and an increase in contract research revenue, offset by a decrease in genetic test revenue. We continue to experience modest growth in our consumer product business, with net revenues of \$7.4 million in 2008, compared to \$6.9 million in 2007. During 2008 Royalty Revenue increased approximately \$.1 million, primarily attributable to a payment received from a foreign distributor for previous royalties due. Genetic test sales decreased approximately \$.4 million, primarily due to a decline in higher customer demand which occurred during the product's initial launch in 2007. On September 1, 2008, we entered into an amended license agreement with Access Business Group granting us a non-exclusive right to sell product on our own. We are in the process of re-launching our products through the Alticor channel, as well as through our own sales channels. Increase in revenue from our consumer products of approximately \$.5 million includes income of \$.3 million from a lower rate of incentive redemption experience reflected in accrued trade promotions. Our experience participating in these promotional activities over time resulted in a lower rate of incentive redemption experience than had been accrued. In the future we anticipate the lower rate to continue and our accrual will be based on this experience. Genetic testing revenue is a result of tests sold and processed which is driven by consumer demand. Contract research revenue is recognized when Alticor sponsored research expenses are incurred.

We have two significant customers. In our Personalized Health Segment, our significant customer, Alticor, which is our principal shareholder, represented approximately 94% of revenues. In our Consumer Products Segment, our other significant customer represented approximately 52% of revenues. Together, these two significant customers accounted for approximately 61% of our total revenues during 2008.

Cost of revenue for the year ended December 31, 2008 was \$4.7 million or 47.3% of revenue compared to \$4.7 million or 48.4% for the year ended December 31, 2007. In our Personalized Health Segment, cost of revenue for the year ended December 31, 2008 was \$.9 million or 35.9% of its revenue compared to \$1.0 million or 34.5% for the year ended December 31, 2007. The decrease in revenue in our Personalized Health Segment is primarily attributable to a decrease in costs of providing genetic testing services partially offset by an increase in the cost of providing contract research services.

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The increase in the cost of revenue as a percentage of revenue in our Personalized Health Segment is primarily attributable to the fixed costs associated with our genetic testing laboratory which remain fixed with changes in revenue. In our Consumer Products Segment, cost of revenue for the year ended December 31, 2008 was \$3.8 million or 51.4% compared to \$3.7 million, or 54.2%, for the year ended December 31, 2007. The increase is primarily attributable to increased consumer product sales.

Gross margin for the year ended December 31, 2008, was \$5.3 million, or 52.7%, compared to \$5.0 million, or 51.6%, for the year ended December 31, 2007. In our Personalized Health Segment gross margin for the year ended December 31, 2008, was \$1.7 million, or 64.1%, compared to \$1.9 million, or 65.5%, for the year ended December 31, 2007. The decrease in gross margin of \$.2 million is primarily attributable to decreased genetic test sales. The decrease in the gross margin percentage as a percentage of revenue in our Personalized Health Segment is attributable to the fixed costs associated with our genetic testing laboratory which remain constant with changes in revenue. In our Consumer Products Segment gross margin was \$3.6 million, or 48.6%, for the year ended December 31, 2008, compared to \$3.1 million, or 45.8%, for the year ended December 31, 2007. The increase of \$.5 million is primarily attributable to increased sales of our consumer products.

Research and development expenses were \$3.6 million for the year ended December 31, 2008 compared to \$2.9 million for the year ended December 31, 2007. The increase of \$.7 million or 21.6% is primarily attributable to an increase in expenses relating to our sponsored research agreement with Yonsei University, combined with increased costs related to our patent portfolio, partially offset by a reduction in research consulting expenses.

Selling, general and administrative expenses were \$7.0 million for the year ended December 31, 2008 compared to \$6.4 million for the year ended December 31, 2007. The increase of \$.6 million, or 10.5%, is primarily attributable to increased promotional and advertising expenses in both our Personalized Health Segment and Consumer Products Segment, plus additional compensation expenses due to our increased headcount. These expense increases were partially offset by a reduction in settlement expenses relating to the acquisition of The Alan James Group, of which \$.6 million was accrued in 2007 and no such expenses were accrued in 2008.

Amortization of intangible assets was \$1.3 million for the year ended December 31, 2008 compared to \$1.7 million for the year ended December 31, 2007. The decrease of \$.4 million, or 19.1%, is primarily attributable to amortization expense associated with a reduction in the basis of intangible assets we acquired from the Alan James Group resulting from our March 2008 settlement agreement with the former owners of that business.

Total other income was \$27,000 for the year ended December 31, 2008 as compared to other expenses of \$256,000 for the year ended December 31, 2007. The decrease of \$283,000 is primarily attributable to amortization of note discount that we recognized in the year ended December 31, 2007 where no such discount was recognized in the year ended December 31, 2008. Net interest income was \$27,000 for the year ended December 31, 2008 compared to net interest income of \$200,000 for the year ended December 31, 2007. The decrease in net interest income of \$173,000 is primarily attributable to a lower cash balance earning interest in 2008. In August, 2006 Alticor purchased from the company \$15.6 million of common stock. The sale of common stock to Alticor, offset by the subsequent purchase of the Alan James Group, provided the company with a larger average cash balance in 2007 than in 2008. Operating cash utilization, partially offset by \$4.0 million in loan proceeds in 2008 from an advance under our line of credit with Alticor, resulted in lower cash balances in 2008. Financial market conditions have significantly reduced the interest rate we earn on our funds. Our average interest rate in 2007 was 5%, where as of December, 2008, it was approximately 1%.

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***Comparison of Year Ended December 31, 2007 to Year Ended December 31, 2006***

Revenue for the year ended December 31, 2007 was \$9.7 million compared to \$4.7 million for the year ended December 31, 2006, an increase of \$5.0 million or 105%. The increase of \$4.8 million was due largely to inclusion of our Consumer Products Segment for the full year 2007 whereas in 2006 that segment was only included since its acquisition on August 17, 2006. Our Personalized Health Segment resulted in an increase of \$.1 million in 2007 over 2006.

We have two significant customers. In our Personalized Health Segment, our significant customer, Alticor, which is the Company's majority shareholder, represented approximately 99% of the revenues of that segment and in our Consumer Product Segment, our significant customer represented approximately 47% of the revenues of that segment. Together, these two customers accounted for approximately 60% of revenues.

Gross profit was approximately \$5.0 million, or 52% of revenue, for the year ended December 31, 2007. Gross profit from our Personalized Health Segment was approximately \$1.9 million, or 65% of its revenue compared to approximately \$1.5 million and 55% in the year ended December 31, 2006. Gross profit from our Consumer Product Segment was approximately \$3.3 million, or 47% of its revenue compared to approximately \$4.4 million and 21% in the period from acquisition through December 31, 2006.

Research and development expenses were approximately \$2.9 million for the year ended December 31, 2007 compared to approximately \$3.3 million for the year ended December 31, 2006, a decrease of \$.4 million or 10%. Funded research and development expenses were approximately \$1.5 million for the year ended December 31, 2007 compared to approximately \$1.7 million for the year ended December 31, 2006, a decrease of approximately \$.2 million or 11%. Between March 2003 and March 2007, we entered into various research agreements with Alticor as described above in "General Overview and Trends."

Selling, general and administrative expenses were approximately \$6.4 million for year ended December 31, 2007 compared to approximately \$4.5 million for the year ended December 31, 2006, an increase of approximately \$1.9 million or 41%. Approximately \$1.3 million of this increase results from the inclusion of our Consumer Product Segment for the full year 2007 and only since its acquisition in August 2006 in the prior year.

Amortization of intangible assets was approximately \$1.7 million for year ended December 31, 2007 compared to approximately \$.6 million during the prior year. This increase was primarily attributable to amortization expense associated with acquisition-related intangible assets for the full year in 2007 and only since acquisition in August 2006, in the year ended December 31, 2006.

Other net expense decreased by approximately \$.2 million from 2007 to approximately \$.3 million in 2006 principally as a result of increased interest income.

Revenue, gross profit, operating and other expenses contributed to a net loss of approximately \$6.2 million, or \$(0.22) per share, for the year ended December 31, 2007 compared to a loss of approximately \$6.9 million, or \$(0.27) per share for 2006.

**Critical Accounting Policies and Estimates**

Critical accounting policies and estimates are defined as those that are reflective of significant judgments and uncertainties, and could potentially result in materially different results under different assumptions and conditions. We believe that our most critical accounting policies and estimates upon



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which our financial condition depends, and which involve the most complex or subjective decisions or assessments are the following:

*Strategic alliance with Alticor:*

We account for our strategic alliance with Alticor in accordance with Emerging Issues Task Force (EITF) No. 01-1, Accounting for Convertible Instruments Granted or Issued to a Nonemployee for Goods or Services or a Combination of Goods or Services and Cash (EITF No. 01-1). Under EITF No. 01-1, the proceeds received from Alticor in connection with the March 5, 2003 transaction must first be allocated to the fair value of the convertible instruments issued. As of March 5, 2003, the fair value of the convertible instruments issued was \$23.7 million; therefore proceeds received from Alticor in connection with the March 5, 2003 transaction, up to \$23.7 million, have been recorded as equity.

*Revenue Recognition:*

Revenue from genetic testing services is recognized when there is persuasive evidence of an arrangement, service has been rendered, the sales price is determinable and collectibility is reasonably assured. Service is deemed to be rendered when the results have been reported to the individual who ordered the test.

Revenue from product sales is recognized when there is persuasive evidence of an arrangement, delivery has occurred and title and risk of loss have transferred to the customer, the sales price is determinable and collectibility is reasonably assured. We have no consignment sales. Product revenue is reduced for allowances and adjustments, including returns, discontinued items, discounts, trade promotions and slotting fees.

Revenue from contract research and development is recognized over the term of the contract as we perform our obligations under the contract.

*Allowance for Sales Returns:*

Our recognition of revenue from sales to retailers is impacted by giving them rights to return damaged and outdated products as well as the fact that as a practical business matter, our sales force, along with our customers, is constantly working to ensure profitability of our products within retailers by rotating slow moving items out of stores and replacing those products with what we and the retailer expect will be more profitable, faster selling items. For product sales, we believe we can reasonably and reliably estimate future returns, therefore we recognize revenue at the time of sale. For product sales which we cannot estimate future returns, particularly new products, we defer revenue recognition until the return privilege has substantially expired or the amount of future returns can be reasonably estimated. An adverse change in any of these factors may result in the need for additional sales returns.

We analyze sales returns in accordance with Statement of Financial Accounting Standards (SFAS) No. 48, *Revenue Recognition When Right of Return Exists*. We are able to make reasonable and reliable estimates based on history. We also monitor the buying patterns of the end-users of our products based on sales data received. We review our estimated product returns based on expected data communicated by our customers. We also monitor the levels of inventory at our largest customers to avoid excessive customer stocking of merchandise. We believe we have sufficient interaction and knowledge of our customers and of the industry trends and conditions to adjust the accrual for returns when necessary. We believe that this analysis creates appropriate estimates of expected future returns. There is no guarantee that future returns will not increase to, or exceed, the levels experienced in the past. Furthermore, the possibility exists that should we lose a major account, we may agree to accept a substantial amount of returns.

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*Trade Promotions:*

We use objective procedures for estimating our allowance for trade promotions. The allowance for trade promotions offered to customers is based on contracted terms or other arrangements agreed in advance, as well as historical experience. The Company may adjust its estimate based on these factors to more accurately reflect trade promotion costs. The Company adjusted the estimate in the fourth quarter of 2008 by approximately \$250,000 with an offsetting increase to revenue.

*Inventory:*

We value our inventory at the lower of cost or market. We monitor our inventory and analyze it on a regular basis. Cycle counts are taken periodically to verify inventory levels. In addition, we analyze the movement of items within our inventory in an effort to determine the likelihood that inventory will be sold or used before expiration dates are reached. We provide an allowance against that portion of inventory that we believe is unlikely to be sold or used before expiration dates are reached. An adverse change in any of these factors may result in the need for additional inventory allowance.

*Stock-based compensation:*

We account for our stock-based compensation expense in accordance with SFAS No. 123 (Revised 2004), *Share-Based Payment* (SFAS No. 123R) using the modified prospective basis. SFAS No. 123R addresses all forms of share-based payment (SBP) awards, including shares issued under employee stock purchase plans, stock options, restricted stock and stock appreciation rights. SFAS No. 123R requires us to expense SBP awards with compensation cost for SBP transactions measured at fair value. SFAS No. 123R applies to new equity awards and to equity awards modified, repurchased or canceled after the effective date. Additionally, compensation cost for the portion of awards for which the requisite service has not been rendered that are outstanding as of the effective date shall be recognized as the requisite service is rendered on or after the effective date. The compensation cost for that portion of awards shall be based on the grant-date fair value of those awards as calculated from the pro forma disclosures under SFAS No. 123. Additionally, common stock purchased pursuant to our employee stock purchase plan will be expensed based upon the fair market value in excess of purchase price.

*Intangible Assets:*

Purchase accounting requires extensive use of accounting estimates and judgments to allocate the purchase price to the fair market value of the assets purchased and liabilities assumed. We have accounted for our acquisitions using the purchase method of accounting. Values were assigned to intangible assets based on third-party independent valuations, as well as management's forecasts and projections that include assumptions related to future revenue and cash flows generated from the acquired assets.

*Income taxes:*

The preparation of our consolidated financial statements requires us to estimate our income taxes in each of the jurisdictions in which it operates, including those outside the United States, which may be subject to certain risks that ordinarily would not be expected in the United States. We account for income taxes in accordance with SFAS No. 109, *Accounting for Income Taxes*, which requires the recognition of taxes payable or refundable for the current year and deferred tax liabilities and assets for the future tax consequences of events that have been recognized in the financial statements or tax returns. The measurement of current and deferred tax liabilities and assets is based on provisions of the enacted tax law; the effects of future changes in tax laws or rates are not anticipated. We record a

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valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized.

Significant management judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities and any valuation allowance recorded against deferred tax assets. We have recorded a full valuation allowance against our deferred tax assets of \$24.5 million as of December 31, 2008, due to uncertainties related to its ability to utilize these assets. The valuation allowance is based on management's estimates of taxable income by jurisdiction in which we operate and the period over which the deferred tax assets will be recoverable. In the event that actual results differ from these estimates or management adjusts these estimates in future periods, we may need to adjust its valuation allowance, which could materially impact its financial position and results of operations.

In January 2007, we adopted FASB Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* (an interpretation of FASB Statement No. 109) (FIN 48). FIN 48 prescribes how a company should recognize, measure, present and disclose in its financial statements uncertain tax positions that a company has taken or expects to take on a tax return. At December 31, 2008, we reviewed all material tax positions for all years open to statute and for all tax jurisdictions open to statute to determine whether it was more likely than not that the positions taken would be sustained based upon the technical merits of those positions. The implementation of FIN 48 had no impact on our financial statements.

*Contingencies:*

Estimated losses from contingencies are accrued by management based upon the likelihood of a loss and the ability to reasonably estimate the amount of the loss. Estimating potential losses, or even a range of losses, is difficult and involves a great deal of judgment. Management relies primarily on assessments made by its external legal counsel to make our determination as to whether a loss contingency arising from litigation should be recorded or disclosed. Should the resolution of a contingency result in a loss that we did not accrue because management did not believe a loss was probable or capable of being reasonably estimated, then this loss would result in a charge to income in the period the contingency was resolved.

*Recent Accounting Pronouncements:*

In September 2006, the Financial Accounting Standards Board (FASB) issued SFAS No. 157, *Fair Value Measurements*, SFAS No. 157 was issued to provide consistency and comparability in determining fair value measurements and to provide for expanded disclosures about fair measurements. The definition of fair value maintains the exchange price notion in earlier definitions of fair value but focuses on the exit price of the asset or liability. The exit price is the price that would be received to sell the asset or paid to transfer the liability adjusted for certain inherent risks and restrictions. Expanded disclosures are also required about the use of fair value to measure assets and liabilities. The effective date is for financial statements issued for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. The adoption of SFAS No. 157 did not have a material impact on the Company's financial position or results of operations..

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities Including an amendment of FASB Statement No. 115*, which is effective for fiscal years beginning after November 15, 2007. The statement permits entities to choose to measure many financial instruments and certain other items at fair value. The Company has not elected to account for any of its assets or liabilities using the fair value option under SFAS No. 159 and accordingly, the adoption of SFAS No. 159 did not have a material impact on the Company's financial position or results of operations.

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In July 2007, the Emerging Issues Task Force (EITF) issued EITF 07-3, "Accounting for Nonrefundable Advance Payments for Goods or Services to be Used in Future Research and Development Activities" (EITF 07-3). EITF 07-3 clarifies the accounting for non-refundable advance payments for goods or services that will be used or rendered for research and development activities. EITF 07-3 states that such payments should be capitalized and recognized as an expense as the goods are delivered or the related services are performed. If an entity does not expect the goods to be delivered or the services rendered, the capitalized advance payment should be charged to expense. EITF 07-3 is effective for fiscal years beginning after December 15, 2007. We adopted EITF 07-3 on January 1, 2008. The adoption of EITF 07-3 did not have a material effect on our financial position or the results of our operations.

In December 2007, the FASB completed the second phase of its business combination project and issued the following two accounting standards:

- i. Statement No. 141(R), "Business Combinations;" and
- ii. Statement No. 160, "Noncontrolling Interests in Consolidated Financial Statements" an amendment of ARB No. 51.

These statements dramatically change the way companies account for business combinations and noncontrolling interests. Compared with their predecessors, Statements 141(R) and 160 will require:

More assets acquired and liabilities assumed to be measured at fair value as of the acquisition date;

Liabilities related to contingent consideration to be remeasured at fair value in each subsequent reporting period;

An acquirer in preacquisition periods to expense all acquisition related costs; and

Noncontrolling interests in subsidiaries initially to be measured at fair value and classified as a separate component of equity.

Statements 141(R) and 160 should both be applied prospectively for fiscal years beginning on or after December 15, 2008. However, Statement 160 requires entities to apply the presentation and disclosure requirements retrospectively to comparative financial statements if presented. Both standards prohibit early adoption. We are currently assessing the impact these new standards will have on our consolidated financial statements.

In December 2007, the FASB ratified a consensus opinion reached by the EITF on EITF Issue 07-1, "Accounting for Collaborative Arrangements" (EITF 07-1). The guidance in EITF 07-1 defines collaborative arrangements and establishes presentation and disclosure requirements for transactions within a collaborative arrangement (both with third parties and between participants in the arrangement). The consensus in EITF 07-1 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2008. The consensus requires retrospective application to all collaborative arrangements existing as of the effective date, unless retrospective application is impracticable. The impracticability evaluation and exception should be performed on an arrangement-by-arrangement basis. We are evaluating the impact EITF 07-1 will have on our financial statements. We currently do not believe that the adoption of EITF 07-1 will have a significant effect on our financial statements.

In December 2007, the SEC staff issued Staff Accounting Bulletin (SAB) 110, "Share-Based Payment" (SAB 110) which amends SAB 107, "Share-Based Payment", to permit public companies, under certain circumstances, to use the simplified method in SAB 107 for employee option grants after December 31, 2007. Use of the simplified method after December 2007 is permitted only for

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companies whose historical data about their employees' exercise behavior does not provide a reasonable basis for estimating the expected term of the options.

In April 2008, the FASB issued FASB Staff Position No. 142-3, Determination of the Useful Life of Intangible Assets ("FSP 142-3"). FSP 142-3 amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangible Assets ("SFAS 142"). The objective of this FSP is to improve the consistency between the useful life of a recognized intangible asset under SFAS 142 and the period of expected cash flows used to measure the fair value of the asset under SFAS 141R. This FSP is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. We are currently evaluating the potential impact that the adoption of FSP 142-3 may have on our consolidated financial statements. We currently use the simplified method to estimate the expected term for employee option grants, as adequate historical experience is not available to provide a reasonable estimate. SAB 110 is effective for employee options granted after December 31, 2007. We adopted SAB 110 on January 1, 2008 and will continue to apply the simplified method until enough historical experience is readily available to provide a reasonable estimate of the expected term for employee option grants.

In November 2008, the FASB issued EITF Issue No. 08-7, "Accounting for Defensive Intangible Assets," or EITF 08-7. EITF 08-7 seeks to clarify how to account for defensive intangible assets, or those intangible assets acquired in a business combination that an entity does not intend to actively use but does intend to prevent others from using, subsequent to initial measurement. EITF 08-7 is effective for all intangible assets acquired during the first fiscal year beginning on or after December 15, 2008. Early adoption is not permitted. The impact of the adoption of EITF 08-7 will be dependent upon the type and structure of any transactions that the Company may make in the future.

**Item 7A. *Quantitative and Qualitative Disclosure about Market Risk***

As of December 31, 2008 the only financial instruments we carried were cash and cash equivalents denominated in U.S. Dollars. We believe the market risk arising from holding these financial instruments is immaterial. While we recognize that the interest rates these instruments bear are currently at historically low levels, we believe it is most prudent to maintain these relatively low risk positions during this time of unprecedented volatility and uncertainty across the global financial markets.

Some of our sales and some of our costs occur outside the United States and are transacted in foreign currencies. Accordingly, we are subject to exposure from adverse movements in foreign currency exchange rates. At this time we do not believe this risk is material and we do not currently use derivative financial instruments to manage foreign currency fluctuation risk. However, if foreign sales increase and the risk of foreign currency exchange rate fluctuation increases, we may in the future consider utilizing derivative instruments to mitigate these risks.

**Item 8. *Financial Statements and Supplementary Data***

**INTERLEUKIN GENETICS, INC. AND SUBSIDIARIES**

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Note: See Item 15 for Financial Statement Schedule.

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

Board of Directors and  
Shareholders of Interleukin Genetics, Inc.

We have audited the accompanying consolidated balance sheets of Interleukin Genetics, Inc. and subsidiaries (a Delaware corporation) (the "Company") as of December 31, 2008 and 2007, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2008. Our audits of the basic financial statements included the financial statement schedule listed in the index appearing under Item 15(a)(1). These consolidated financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Interleukin Genetics, Inc. and subsidiaries as of December 31, 2008 and 2007, and the results of their operations and their cash flows for the each of the three years in the period ended December 31, 2008, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/ GRANT THORNTON LLP

Boston, Massachusetts  
March 23, 2009

## INTERLEUKIN GENETICS, INC. AND SUBSIDIARIES

## CONSOLIDATED BALANCE SHEETS

	December 31,	
	2008	2007
<b>ASSETS</b>		
<b>Current assets:</b>		
Cash and cash equivalents	\$ 4,952,481	\$ 7,646,468
Accounts receivable from related party	35,167	48,147
Trade accounts receivable, net of allowances for doubtful accounts of \$6,696 in 2008 and 2007	720,914	942,115
Inventory	828,120	999,392
Deferred tax asset	58,000	41,000
Prepaid expenses and other current assets	271,602	335,386
Total current assets	6,866,284	10,012,508
<b>Fixed assets, net</b>	474,035	578,706
<b>Intangible assets, net</b>	4,759,153	5,741,402
<b>Other assets</b>	54,916	53,333
<b>Total assets</b>	<b>\$ 12,154,388</b>	<b>\$ 16,385,949</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
<b>Current liabilities:</b>		
Accounts payable	\$ 1,332,258	\$ 836,071
Accrued expenses	1,820,544	1,948,364
Deferred receipts	482,103	1,458,208
State taxes payable	10,000	32,500
Commitments for funded research and development projects	22,056	92,056
Due to seller from August 2006 acquisition		1,200,000
Convertible debt		595,336
Total current liabilities	3,666,961	6,162,535
<b>Long Term Debt</b>	4,000,000	
<b>Deferred tax liability</b>	5,000	31,000
<b>Total liabilities</b>	7,671,961	6,193,535
<b>Stockholders' equity:</b>		
Convertible preferred stock, \$0.001 par value 6,000,000 shares authorized; 5,000,000 shares of Series A issued and outstanding at December 31, 2008 and 2007; aggregate liquidation preference of \$18,000,000 at December 31, 2008 and 2007	5,000	5,000
Common stock, \$0.001 par value 100,000,000 shares authorized; 31,799,381 and 30,832,102 shares issued and outstanding at December 31, 2008 and 2007, respectively	31,799	30,832
Additional paid-in capital	85,458,334	84,517,903
Accumulated deficit	(81,012,706)	(74,361,321)
Total stockholders' equity	4,482,427	10,192,414
<b>Total liabilities and stockholders' equity</b>	<b>\$ 12,154,388</b>	<b>\$ 16,385,949</b>

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





Table of Contents**INTERLEUKIN GENETICS, INC. AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF OPERATIONS**

	<b>For the Years Ended December 31,</b>		
	<b>2008</b>	<b>2007</b>	<b>2006</b>
<b>Revenue:</b>			
Revenue from related party	\$ 2,460,115	\$ 2,792,683	\$ 2,652,198
Revenue from others	7,554,865	6,907,810	2,078,828
<b>Total revenue</b>	<b>10,014,980</b>	<b>9,700,493</b>	<b>4,731,026</b>
<b>Cost of revenue</b>			
	4,737,918	4,699,446	2,842,597
<b>Gross profit</b>	<b>5,277,062</b>	<b>5,001,047</b>	<b>1,888,429</b>
<b>Operating Expenses:</b>			
Research and development	3,560,002	2,928,249	3,262,349
Selling, general and administrative	7,034,368	6,367,973	4,506,799
Amortization of intangible assets	1,335,438	1,651,244	646,065
<b>Total operating expenses</b>	<b>11,929,808</b>	<b>10,947,466</b>	<b>8,415,213</b>
<b>Loss from operations</b>	<b>(6,652,746)</b>	<b>(5,946,419)</b>	<b>(6,526,784)</b>
<b>Other income (expense):</b>			
Interest income	158,772	437,017	283,191
Interest expense	(131,309)	(236,932)	(234,289)
Other expense		533	
Amortization of note discount		(457,484)	(461,874)
<b>Total other income (expense)</b>	<b>27,463</b>	<b>(256,866)</b>	<b>(412,972)</b>
<b>Net loss before income taxes</b>	<b>(6,625,283)</b>	<b>(6,203,285)</b>	<b>(6,939,756)</b>
Provision for income taxes	(26,102)	(15,500)	(7,000)
<b>Net loss</b>	<b>\$ (6,651,385)</b>	<b>\$ (6,218,785)</b>	<b>\$ (6,946,756)</b>
<b>Basic and diluted net loss per common share</b>	<b>\$ (0.21)</b>	<b>\$ (0.22)</b>	<b>\$ (0.27)</b>
<b>Weighted average common shares outstanding</b>	<b>31,354,198</b>	<b>27,723,754</b>	<b>25,340,107</b>

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

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## INTERLEUKIN GENETICS, INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

For the Years Ended December 31, 2008, 2007 and 2006

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total
	Shares	\$0.001 par value	Shares	\$0.001 par value			
<b>Balance as of December 31, 2005</b>	5,000,000	\$ 5,000	23,927,326	\$23,927	\$61,450,598	\$(61,195,780)	\$ 283,745
Net loss						(6,946,756)	(6,946,756)
Investment by Alticor:							
Research funding					1,451,978		1,451,978
Other					1,274,210		1,274,210
Private placement, net of issuance costs of \$150,063			2,750,037	2,750	15,462,724		15,465,474
Common stock issued:							
Exercise of stock warrants			125,000	125	312,375		312,500
Exercise of stock options			539,050	539	830,194		830,733
Employee stock purchase plan			9,074	9	44,350		44,359
Restricted stock awards			28,497	29	(29)		
Common stock awards			28,000	28	(28)		
Stock-based compensation expense					1,069,688		1,069,688
<b>Balance as of December 31, 2006</b>	5,000,000	5,000	27,406,984	27,407	81,896,060	(68,142,536)	13,785,931
Net loss						(6,218,785)	(6,218,785)
Common stock issued:							
Exercise of stock options			194,917	195	347,217		347,412
Employee stock purchase plan			7,702	8	16,713		16,721
Restricted stock awards			12,500	12	(12)		
Common stock awards			7,000	7	(7)		
Conversion of long-term debt to equity			3,190,987	3,191	2,032,098		2,035,289
Rights offering, net of issuance costs			12,012	12	52,670		52,682
Stock-based compensation expense					173,164		173,164
<b>Balance as of December 31, 2007</b>	5,000,000	5,000	30,832,102	30,832	84,517,903	(74,361,321)	10,192,414
Net loss						(6,651,385)	(6,651,385)
Investment by Alticor:							
Other					168,254		168,254
Common stock issued:							
Employee stock purchase plan			11,747	12	10,223		10,235
Restricted stock awards			12,500	12	(12)		
			943,032	943	601,843		602,786

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Conversion of long-term debt to equity							
Stock-based compensation expense					160,123		160,123
<b>Balance as of</b>							
<b>December 31, 2008</b>	<b>5,000,000</b>	<b>\$ 5,000</b>	<b>31,799,381</b>	<b>\$31,799</b>	<b>\$85,458,334</b>	<b>\$(81,012,706)</b>	<b>\$ 4,482,427</b>

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

Table of Contents**INTERLEUKIN GENETICS, INC. AND SUBSIDIARIES****CONSOLIDATED STATEMENTS OF CASH FLOWS**

	<b>For the Years Ended December 31,</b>		
	<b>2008</b>	<b>2007</b>	<b>2006</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>			
Net loss	\$(6,651,385)	\$ (6,218,785)	\$ (6,946,756)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	1,632,838	1,983,326	983,400
Amortization of note discount		457,484	461,874
Interest capitalized in debt to equity conversion		39,679	
Stock-based compensation expense	160,123	173,164	1,069,688
Loss on disposal of fixed asset		3,968	
Changes in operating assets and liabilities, excluding the effects of the acquisition:			
Accounts receivable, net	234,181	(21,814)	511,667
Inventory	171,272	504,762	495,846
Prepaid expenses and other current assets	(17,617)	100,206	(152,777)
Accounts payable	496,187	(112,350)	313,472
Accrued expenses	(727,819)	(171,365)	(456,499)
State Taxes Payable	(22,500)	33,131	
Deferred revenue	(807,852)	147,945	428,684
Due to seller		600,000	
Commitments for funded R&D	(70,000)	(73,500)	(152,463)
Deferred tax provision	36,818	15,500	7,000
Net cash used in operating activities	(5,565,754)	(2,538,649)	(3,436,864)
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Capital additions	(192,728)	(38,822)	(146,297)
Increase in other assets	(353,190)	(213,116)	(185,712)
Relating Expenses to the Acquisition of Alan James Group, LLC	(600,000)	(62,679)	(7,665,449)
Net cash used in investing activities	(1,145,918)	(314,617)	(7,997,458)
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>			
Proceeds from issuance of notes payable	4,000,000		16,917,452
Proceeds from exercises of rights offering, stock warrants, options and employee stock purchase plan	17,685	416,815	1,187,592
Principal payments of capital lease obligations			(2,977)
Net cash provided by financing activities	4,017,685	416,815	18,102,067
Net (decrease) increase in cash and cash equivalents	(2,693,987)	(2,436,451)	6,667,745
Cash and cash equivalents, beginning of year	7,646,468	10,082,919	3,415,174
<b>Cash and cash equivalents, end of year</b>	<b>\$ 4,952,481</b>	<b>\$ 7,646,468</b>	<b>\$ 10,082,919</b>
<b>Supplemental disclosures of cash flow information:</b>			
Cash paid for income taxes	\$ 26,102	\$	\$
Cash paid for interest	\$ 72,016	\$ 197,628	\$ 234,289

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### *Non-cash activities:*

On February 25, 2008, the Company recognized \$168,254 of funds previously received from Alticor under a research agreement for which no work has been performed, and no work will be required to be performed as additional paid-in capital on the Company's balance sheet. The amount previously received of \$168,254 was initially recorded as deferred revenue.

On June 11, 2008, the Company converted the indebtedness due on June 30, 2008, representing an aggregate principal amount of \$595,336 and accrued interest of \$7,450, into 943,032 shares of the Company's common stock.

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

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**INTERLEUKIN GENETICS, INC. AND SUBSIDIARIES**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Note 1 Company Overview**

Interleukin Genetics, Inc. and subsidiaries (Interleukin or the Company) is a company focused on developing, acquiring, and commercializing personalized health products that can help individuals improve and maintain their health through preventive measures. It uses functional genomics to help in the development of risk assessment tests based on the genetic variations in people. The Company also develops and markets nutritional products. Interleukin has commercialized genetic tests for periodontal disease risk assessment, cardiovascular risk assessment, and general nutrition assessment. In addition, through its Alan James Group subsidiary which it acquired in August 2006, Interleukin sells its nutritional product brands, including Ginsana®, Ginkoba , and Venastat®, through the nation's largest food, drug and mass retailers. The Company's current development programs focus on osteoporosis and weight management genetic risk assessment tests.

The Company was incorporated in Texas in 1986 and re-incorporated in Delaware in March 2000.

The Company has experienced operating losses since its inception through December 31, 2008. During the last three years such losses totaled \$19.8 million contributing to an accumulated deficit of \$81.0 million. Based on the current operating and capital expenditure forecasts, the Company believes that the combination of funds currently available, funds to be generated from operations and the available lines of credit will be adequate to finance their ongoing operations for at least the next twelve months.

**Note 2 Acquisition**

In August 2006, the Company acquired the assets and business of the Alan James Group, LLC (the Alan James Group). The acquired business primarily develops, markets and sells nutritional products and engages in related activities. The Alan James Group is a provider of products and services in the consumer healthcare marketplace. Interleukin and the Alan James Group have complementary capabilities in genetic testing services and preventive healthcare products distribution. The initial purchase price consisted of the payment of \$7,031,257 in cash and the obligation to place in escrow \$250,000 and 88,055 shares of the Company's Common Stock valued at \$500,000, or \$5.6873 per share (based on the volume-weighted average closing stock price for the 20 consecutive trading days ending August 15, 2006). The \$250,000 and 88,055 common stock shares that were to have been placed in escrow was settled as part of the agreement dated March 25, 2008. The acquisition was accounted for as a purchase in accordance with Statement of Financial Accounting Standards (SFAS) No. 141, *Business Combinations* (SFAS No. 141). Accordingly, the consolidated financial statements include the results of the acquired company's operations since the acquisition date, August 17, 2006.

The purchase price was allocated to the tangible and intangible assets acquired and liabilities assumed based on their estimated fair values at the date of acquisition. The estimated fair value of the assets acquired and liabilities assumed exceeded the initial payments by approximately \$2.2 million resulting in negative goodwill. Pursuant to SFAS No. 141, the Company recorded as a liability, contingent consideration up to the amount of negative goodwill.

On March 25, 2008, pursuant to the terms of a settlement agreement between the Company and former owners of the Alan James Group regarding the acquisition of its assets and business, the Company agreed to pay a total of \$1,200,000. This agreement resolved all remaining issues associated with the Company's August 2006 acquisition of that business including contingent consideration and compensation arrangements with the seller/former management. The \$1,200,000 due to sellers was recorded as a current liability at December 31, 2007. The Company applied \$600,000 of the settlement

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cost against the previously accrued separation expense that was recorded on June 30, 2007 and the remaining \$600,000 was applied against the \$2,130,374 aggregate total of contingent liabilities and amounts due under escrow recorded as part of the original acquisition. The remaining contingent liabilities and amounts due under escrow balance of \$1,530,374 was eliminated as no longer due and applied as a reduction in the balances on a pro rata basis of the intangible assets recorded as part of the original acquisition, including the effect of term reduction on the non-compete agreements.

The components of the purchase price allocation are as follows:

<b>Purchase Price:</b>	
Cash	\$ 7,031,257
Transaction costs	632,260
	\$ 7,663,517
<b>Allocation:</b>	
Accounts Receivable	\$ 1,479,837
Inventory	2,000,000
Other current assets	108,611
Property and equipment	110,144
Acquired intangible assets	8,800,000
Accounts payable and accrued expenses	(2,618,334)
Contingent acquisition costs	(2,216,741)
	\$ 7,663,517

Acquired intangible assets were valued based upon third-party independent valuations and studies performed by the Company in August 2006 and consist of the following (see Note 6):

Identified Intangible Assets	Estimated Fair Value	Estimated Remaining Useful Life
Retailer Relationships	\$ 5,200,000	5 years
Indefinite Lived Trademarks	1,000,000	N/A
Definite Lived Trademarks	1,100,000	5 years
Non-Compete Agreements	200,000	4 years
OTCcutical Formulations	1,300,000	5 years
 Total Fair Value of Intangible Assets	 \$ 8,800,000	

For tax purposes, the fair value of the non-current tangible and intangible assets will be reduced pro rata to the extent of the contingent liability with a resultant reduction in amortization for tax purposes. If, and when, the contingent liability is paid, the tax basis of the non-current tangible assets will be increased pro rata in the amount of the contingent payment up to the non-current assets fair value at the date of acquisition. The unamortized tax basis will be amortized over the assets remaining useful life.

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Had the acquisition of the Alan James Group been completed at the beginning of 2005, the Company's pro forma results would have been as follows:

	For the Years Ended December 31,	
	2006	2005
Revenue	\$ 9,740,883	\$ 9,417,076
Net loss	\$(8,691,470)	\$(7,420,641)
Basic and diluted net loss per common share	\$ (0.32)	\$ (0.28)

### **Note 3 Significant Accounting Policies**

#### *Principles of Consolidation*

The consolidated financial statements include the accounts of Interleukin Genetics, Inc., and its wholly owned subsidiaries, Interleukin Genetics Laboratory Services, Inc. and AJG Brands, Inc. doing business as the Alan James Group. All intercompany accounts and transactions have been eliminated. Results of AJG Brands, Inc. are included in operations since August 17, 2006, the date of acquisition.

#### *Management Estimates*

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenue and expenses during the reported periods. Actual results could differ from those estimates. The Company's most critical accounting policies are in areas of its strategic alliance with Alticor, revenue recognition, allowance for sales returns, trade promotions, accounts receivable, inventory, stock-based compensation, income taxes, long-lived assets. These critical accounting policies are more fully discussed in these notes to the consolidated financial statements.

#### *Revenue Recognition*

Revenue from genetic testing services is recognized when there is persuasive evidence of an arrangement, service has been rendered, the sales price is determinable and collectibility is reasonably assured. Service is deemed to be rendered when the results have been reported to the individual who ordered the test. To the extent that tests have been prepaid but results have not yet been reported, recognition of all related revenue is deferred. As of December 31, 2008 and 2007, the Company has deferred receipts of \$80,000 and \$12,250, respectively, for tests that have been prepaid but results have not yet been reported.

Revenue from product sales is recognized when there is persuasive evidence of an arrangement, delivery has occurred and title and risk of loss have transferred to the customer, the sales price is determinable and collectibility is reasonably assured. The Company has no consignment sales. Product revenue is reduced for allowances and adjustments, including returns, discontinued items, discounts, trade promotions and slotting fees.

Revenue from contract research and development is recognized over the term of the contract as the Company performs its obligations under that contract (including revenue from Alticor, a related party).



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*Allowance for Sales Return*

The Company's revenue is affected by retailers' right to return damaged and outdated products. For product sales for which the Company believes it can reasonably and reliably estimate future returns, it recognizes revenue at the time of sale. For product sales for which the Company cannot reasonably and reliably estimate future returns, such as new products, the Company defers revenue recognition until the return privilege has substantially expired or the amount of future returns can be reasonably and reliably estimated. As of December 31, 2008 and 2007, the Company has deferred \$78,627 and \$93,080, respectively, of revenue for sales for which it cannot reasonably and reliably estimate future returns.

The Company analyzes sales returns in accordance with SFAS No. 48, *Revenue Recognition When Right of Return Exists*. The Company is able to make reasonable and reliable estimates based on its history. The Company also monitors the buying patterns of the end-users of its products based on sales data received. The Company reviews its estimated product returns based on expected data communicated by its customers. The Company also monitors the levels of inventory at its largest customers to avoid excessive customer stocking of merchandise. The Company believes it has sufficient interaction and knowledge of its customers, industry trends and industry conditions to adjust the accrual for returns when necessary. If the Company loses a major account, it may agree to accept a substantial amount of returns.

*Trade Promotions*

The Company uses objective procedures for estimating its allowance for trade promotions. The allowance for trade promotions offered to customers is based on contracted terms or other arrangements agreed in advance, as well as historical experience. The Company may adjust its estimate based on these factors to more accurately reflect trade promotion costs. The Company adjusted the estimate in the fourth quarter of 2008 by approximately \$250,000 with an offsetting increase to revenue.

*Accounts Receivable*

Trade accounts receivable are stated at their estimated net realizable value, which is generally the invoiced amount less any estimated discount related to payment terms. The Company offers its Consumer Product Segment customers a 2% cash discount if payment is made within 30 days of the invoice date, however, most customers take the discount regardless of when payment occurs. As of December 31, 2008 and 2007, the Company has reduced trade accounts receivable by \$13,364 and \$17,851, respectively, for discounts anticipated to have been taken. The Company provides for an allowance for estimated bad debts based on management's estimate of the amount of possible credit losses in the Company's existing accounts receivable. As of December 31, 2008 and 2007, the Company has provided an allowance for uncollectible accounts of \$6,696.

*Inventory*

Inventory is stated at the lower of cost or market. Cost is determined using invoice price from vendors. Management periodically evaluates inventory to identify items that are slow moving or have excess quantities. Management also considers whether certain items are carried at values that exceed the ultimate sales price less selling costs. Where such items are identified, management adjusts the carrying value to lower of cost or market.

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Inventory on hand primarily consisted of the following at December 31, 2008 and 2007:

	2008	2007
Raw materials	\$ 93,544	\$ 93,022
Finished goods	734,576	906,370
<b>Total</b>	<b>\$828,120</b>	<b>\$999,392</b>

### *Stock-Based Compensation*

The Company accounts for its stock-based compensation expense in accordance with SFAS No. 123 (Revised 2004), *Share-Based Payment* (SFAS No. 123R) which requires companies to recognize compensation expenses for all share-based payments to employees at fair value. SFAS No. 123R addresses all forms of share-based payment (SBP) awards, including shares issued under employee stock purchase plans, stock options, restricted stock and stock appreciation rights. SFAS No. 123R requires the Company to expense SBP awards with compensation cost for SBP transactions measured at fair value. SFAS No. 123R applies to new equity awards and to equity awards modified, repurchased or canceled after the effective date, January 1, 2006. Additionally, compensation cost for the portion of awards for which the requisite service has not been rendered that are outstanding as of the effective date shall be recognized as the requisite service is rendered on or after the effective date. The compensation cost for that portion of awards shall be based on the grant-date fair value of those awards as calculated from the pro forma disclosures under SFAS No. 123. Additionally, the Company records an expense for the amount that the fair market value exceeds the purchase cost for common stock purchased pursuant to its employee stock purchase plan.

### *Income Taxes*

The preparation of its consolidated financial statements requires the Company to estimate its income taxes in each of the jurisdictions in which it operates, including those outside the United States, which may be subject to certain risks that ordinarily would not be expected in the United States. The Company accounts for income taxes in accordance with SFAS No. 109, *Accounting for Income Taxes*, which requires the recognition of taxes payable or refundable for the current year and deferred tax liabilities and assets for the future tax consequences of events that have been recognized in the financial statements or tax returns. The measurement of current and deferred tax liabilities and assets is based on provisions of the enacted tax law; the effects of future changes in tax laws or rates are not anticipated. The Company records a valuation allowance to reduce its deferred tax assets to the amount that is more likely than not to be realized.

Significant management judgment is required in determining the Company's provision for income taxes, its deferred tax assets and liabilities and any valuation allowance recorded against deferred tax assets. The Company has recorded a full valuation allowance against its deferred tax assets of \$24.5 million as of December 31, 2008, due to uncertainties related to its ability to utilize these assets. The valuation allowance is based on management's estimates of taxable income by jurisdiction in which the Company operates and the period over which the deferred tax assets will be recoverable. In the event that actual results differ from these estimates or management adjusts these estimates in future periods, the Company may need to adjust its valuation allowance, which could materially impact its financial position and results of operations.

In January 2007, the Company adopted FASB Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* (an interpretation of FASB Statement No. 109) (FIN 48). FIN 48 prescribes how a company should recognize, measure, present and disclose in its financial statements uncertain tax positions that a company has taken or expects to take on a tax return. At December 31, 2008, the Company reviewed all material tax positions for all years open to statute and for all tax jurisdictions

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open to statute to determine whether it was more likely than not that the positions taken would be sustained based upon the technical merits of those positions. The implementation of FIN 48 had no impact on the Company's financial statements.

*Research and Development*

Research and development costs are expensed as incurred.

*Advertising Expense*

Advertising costs are expensed as incurred. During the years ended December 31, 2008, 2007 and 2006 advertising expense was \$516,000, \$26,000 and \$0, respectively.

*Basic and Diluted Net Loss per Common Share*

The Company applies SFAS No. 128, *Earnings per Share*, which establishes standards for computing and presenting earnings per share. Basic and diluted net loss per share was determined by dividing net loss applicable to common stockholders by the weighted average number of shares of common stock outstanding during the period. Diluted net loss per share is the same as basic net loss per share for all the periods presented, as the effect of the potential common stock equivalents is anti-dilutive due to the loss in each period. Potential common stock equivalents excluded from the calculation of diluted net loss per share consists of stock options, warrants, convertible preferred stock and convertible debt as described in the table below:

	2008	2007	2006
Options outstanding	2,100,917	1,366,406	1,893,015
Warrants outstanding	400,000	400,000	400,000
Convertible preferred stock	28,160,200	28,160,200	28,160,200
Convertible debt	704,436	931,377	4,060,288
<b>Total</b>	<b>31,365,553</b>	<b>30,857,983</b>	<b>34,513,503</b>

*Comprehensive Income (Loss)*

Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. During the years ended December 31, 2008, 2007 and 2006, there were no items other than net loss included in the comprehensive loss.

*Fair Value of Financial Instruments*

The Company, using available market information, has determined the estimated fair values of financial instruments. The stated values of cash and cash equivalents, accounts receivable and accounts payable approximate fair value due to the short-term nature of these instruments. The carrying amounts of borrowings under short-term agreements approximate their fair value as the rates applicable to the financial instruments reflect changes in overall market interest rates.

*Cash Equivalents*

Cash equivalents consist of money market funds at a financial institution. These funds are not federally insured.

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*Fixed Assets*

Fixed assets are stated at cost, less accumulated depreciation and amortization. Depreciation and amortization are provided using the straight-line method over estimated useful lives of three to five years. Leasehold improvements are amortized over the estimated useful life of the asset, or the remaining term of the lease, whichever is shorter.

*Long-Lived Assets*

The Company applies the provisions of SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets* (SFAS No. 144). SFAS No. 144 requires that the Company evaluate its long-lived assets for impairment whenever events or changes in circumstances indicate that carrying amounts of such assets may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to the future undiscounted net cash flows expected to be generated by the asset. Any write-downs, based on fair value, are to be treated as permanent reductions in the carrying amount of the assets. The Company believes that no impairment exists related to the Company's long-lived assets at December 31, 2008.

*Intangible Assets*

Purchase accounting requires extensive use of accounting estimates and judgments to allocate the purchase price to the fair market value of the assets purchased and liabilities assumed. The Company accounted for its acquisitions using the purchase method of accounting. Values were assigned to goodwill and intangible assets based on third-party independent valuations, as well as management's forecasts and projections that include assumptions related to future revenue and cash flows generated from the acquired assets.

The Company applies the provisions of SFAS No. 142, *Goodwill and Other Intangible Assets*. SFAS No. 142 requires impairment tests be periodically repeated and on an interim basis, if certain conditions exist, with impaired assets written down to fair value. An analysis performed by management on December 31, 2007, determined that the indefinite lived trademarks had a current fair market value of \$764,000. Management adjusted the book value of the indefinite lived trademarks to reflect this \$236,000 impairment in value. See Note 7 for adjustments of intangible assets per settlement dated March 25, 2008.

*Recent Accounting Pronouncements*

In September 2006, the Financial Accounting Standards Board (FASB) issued SFAS No. 157, *Fair Value Measurements*. SFAS No. 157 was issued to provide consistency and comparability in determining fair value measurements and to provide for expanded disclosures about fair value measurements. The definition of fair value maintains the exchange price notion in earlier definitions of fair value but focuses on the exit price of the asset or liability. The exit price is the price that would be received to sell the asset or paid to transfer the liability adjusted for certain inherent risks and restrictions. Expanded disclosures are also required about the use of fair value to measure assets and liabilities. This statement is effective for fiscal years beginning after November 15, 2007 and interim periods with in those fiscal years. FSP No. 157-2 defers the effective date of SFAS 157 to fiscal years beginning after November 15, 2008 for non-financial assets and liabilities. The Company adopted this statement for its financial assets and liabilities on January 1, 2008. The adoption of SFAS 157 did not have a material impact on the Company's financial position or results of operations.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities-Including an amendment of FASB Statement No. 115*, which is effective for fiscal years beginning after November 15, 2007. The statement permits entities to choose to measure many financial instruments and certain other items at fair value. The Company adopted SFAS 159 on

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January 1, 2008. The Company has not elected to account for any of its assets or liabilities using the fair value option under SFAS 159 and accordingly, the adoption of SFAS 159 did not have a material impact on the Company's financial position or results of operations.

In July 2007, the Emerging Issues Task Force (EITF) issued EITF 07-3, "Accounting for Nonrefundable Advance Payments for Goods or Services to be Used in Future Research and Development Activities" (EITF 07-3). EITF 07-3 clarifies the accounting for nonrefundable advance payments for goods or services that will be used or rendered for research and development activities. EITF 07-3 states that such payments should be capitalized and recognized as an expense as the goods are delivered or the related services are performed. If an entity does not expect the goods to be delivered or the services rendered, the capitalized advance payment should be charged to expense. EITF 07-3 is effective for fiscal years beginning after December 15, 2007. The Company adopted EITF 07-3 on January 1, 2008. The adoption of EITF 07-3 did not have a material impact on the Company's financial position or results of operations.

In December 2007, the FASB completed the second phase of its business combination project and issued the following two accounting standards:

- i. Statement No. 141(R), "Business Combinations;" and
- ii. Statement No. 160, "Noncontrolling Interests in Consolidated Financial Statements" an amendment of ARB No. 51.

These statements dramatically change the way companies account for business combinations and noncontrolling interests. Compared with their predecessors, Statements 141(R) and 160 will require:

More assets acquired and liabilities assumed to be measured at fair value as of the acquisition date;

Liabilities related to contingent consideration to be remeasured at fair value in each subsequent reporting period;

An acquirer in preacquisition periods to expense all acquisition related costs; and

Noncontrolling interests in subsidiaries initially to be measured at fair value and classified as a separate component of equity.

Statements 141(R) and 160 should both be applied prospectively for fiscal years beginning on or after December 15, 2008. However, Statement 160 requires entities to apply the presentation and disclosure requirements retrospectively to comparative financial statements if presented. Both standards prohibit early adoption. We are currently assessing the impact these new standards will have on our consolidated financial statements.

In December 2007, the FASB ratified a consensus opinion reached by the EITF on EITF Issue 07-1, "Accounting for Collaborative Arrangements" (EITF 07-1). The guidance in EITF 07-1 defines collaborative arrangements and establishes presentation and disclosure requirements for transactions within a collaborative arrangement (both with third parties and between participants in the arrangement). The consensus in EITF 07-1 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2008. The consensus requires retrospective application to all collaborative arrangements existing as of the effective date, unless retrospective application is impracticable. The impracticability evaluation and exception should be performed on an arrangement-by-arrangement basis. We are evaluating the impact of EITF 07-1 will have on its financial statements. We currently do not believe that the adoption of EITF 07-1 will have a significant effect on the financial statements.

In December 2007, the SEC staff issued Staff Accounting Bulletin (SAB) 110, "Share Based Payment" (SAB 110) which amends SAB 107, "Share Based Payment", to permit public companies,



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under certain circumstances, to use the simplified method in SAB 107 for employee option grants after December 31, 2007. Use of the simplified method after December 2007 is permitted only for companies whose historical data about their employees' exercise behavior does not provide a reasonable basis for estimating the expected term of the options.

In April 2008, the FASB issued FASB Staff Position No. 142-3, Determination of the Useful Life of Intangible Assets ("FSP 142-3"). FSP 142-3 amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset under Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangible Assets ("SFAS 142"). The objective of this FSP is to improve the consistency between the useful life of a recognized intangible asset under SFAS 142 and the period of expected cash flows used to measure the fair value of the asset under SFAS 141R. This FSP is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. We are currently evaluating the potential impact that the adoption of FSP 142-3 may have on our consolidated financial statements. We currently use the simplified method to estimate the expected term for employee option grants, as adequate historical experience is not available to provide a reasonable estimate. SAB 110 is effective for employee options granted after December 31, 2007. We adopted SAB 110 effective January 1, 2008 and will continue applying the simplified method until enough historical experience is readily available to provide a reasonable estimate of the expected term for employee option grants.

In November 2008, the FASB issued EITF Issue No. 08-7, "Accounting for Defensive Intangible Assets," or EITF 08-7. EITF 08-7 seeks to clarify how to account for defensive intangible assets, or those intangible assets acquired in a business combination that an entity does not intend to actively use but does intend to prevent others from using, subsequent to initial measurement. EITF 08-7 is effective for all intangible assets acquired during the first fiscal year beginning on or after December 15, 2008. Early adoption is not permitted. The impact of the adoption of EITF 08-7 will be dependent upon the type and structure of any transactions that the Company may make in the future.

**Note 4 Strategic Alliance with Alticor Inc.**

On March 5, 2003, the Company entered into a broad strategic alliance with several affiliates of the Alticor family of companies to develop and market novel nutritional and skin care products. The alliance utilizes Interleukin Genetics' intellectual property and expertise in genomics to develop risk assessment tests and to aid Alticor in its efforts to develop personalized consumer products.

The alliance initially included an equity investment, a multi-year research and development agreement, a licensing agreement with royalties on marketed products, the deferment of outstanding loan repayment and the refinancing of bridge financing obligations. The major elements of the initial alliance were:

The purchase by Alticor of \$7,000,000 of equity in the form of 5 million shares of Series A Preferred Stock for \$1.40 per share. These were convertible into 28,157,683 shares of common stock at a stated conversion price equal to \$0.2486 per share. On March 11, 2004, upon achievement of a defined milestone, Alticor contributed an additional \$2,000,000 to the Company for a total equity funding of \$9,000,000 and a new stated conversion price of \$0.3196 per share, or 28,160,200 shares of common stock.

The right of the Series A holders to nominate and elect four directors to a five person board.

A research and development agreement (Research Agreement I) providing the Company with funding of \$5,000,000, payable over the twenty-four month period from April 2003 through March 2005, to conduct certain research projects with a royalty on resulting products.

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Credit facilities in favor of the Company, as described further in Note 8, as follows:

\$1,500,000 working capital credit line to initiate selected research agreements with third party entities approved by the board of directors of the Company;

\$2,000,000 refinancing of notes previously held by Alticor, extending the maturity date and reducing the interest rate, and;

\$595,336 refinancing on July 1, 2003 of bridge financing notes previously held by third parties, extending the maturity date and reducing the interest rate.

As of December 31, 2007, there was \$595,336 outstanding under the terms of these credit facilities.

On June 17, 2004, the Company entered into another research agreement (Research Agreement II), valued at \$2,200,000, as amended, with Alticor to conduct research into the development of a test to identify individuals with specific genetic variations that affect how people gain and maintain weight. During the first phase of the agreement, the Company received \$1,380,000 in research funding over a period of six months beginning on July 1, 2004. If Alticor determines, in its sole discretion, that it has reasonable likelihood of commercializing weight management nutritional products, the Company will be eligible to receive, during the second phase of the agreement, an additional \$820,000 in funding over a six-month period. No funding related to this agreement was received during the years ended December 31, 2008, 2007 and 2006 and the Company is not anticipating any additional funding under this agreement.

On March 5, 2005, the Company entered into an agreement with Alticor to expand the research being performed under Research Agreement I (Research Agreement III) to provide additional funding of \$2,716,151 over the two years beginning April 1, 2005. Also on March 5, 2005, the Company entered into an additional agreement (Research Agreement IV) with Alticor for exploratory research valued at \$2,341,500 over a two-year period commencing April 1, 2005. These research agreements provided the Company with a total of \$5,000,000 during the two years ending March 2007. The Company received \$2,540,161 and \$2,517,474 in funding related to these agreements during the year ended December 31, 2006 and 2005, respectively, and is not anticipating any additional funding under these agreements. As of December 31, 2006, \$1,123,183 of this amount was received in advance of performing the related activity and is included in deferred receipts on the accompanying consolidated balance sheet.

Also on April 18, 2005, Alticor paid the Company \$2,000,000 as a non-refundable advance payment for genetic risk assessment tests to be processed under the terms of the Distribution Agreement, which expired on March 22, 2006. On February 23, 2006, the Company entered into two new purchase agreements with Alticor. The two new purchase agreements cover two genetic health assessment tests that Interleukin Genetics developed on behalf of Alticor. These are: 1) the heart health genetic test, which analyzes DNA variations in the Interleukin-1A and Interleukin-1B genes to identify whether an individual may have a predisposition for chronically elevated measures of inflammation and an increased risk for heart disease; and 2) the general nutrition genetic test, which analyzes DNA variations in two genes that affect Vitamin B metabolism and four genes that are involved in responding to oxidative stress. The purchase agreement for the heart health genetic test provides for sales of these tests to Alticor through March 2008. Both parties agreed that \$600,000 of the \$2,000,000 prepayment received pursuant to the Distribution Agreement would be applied to purchases made under the purchase agreement for the heart health genetic tests from March 23, 2006 through December 31, 2006 to the extent tests are processed. Of the remaining \$1,400,000 prepayment, \$125,790 was recognized as revenue for tests processed during the remaining term of the Distribution Agreement and the balance of \$1,274,210 has been reclassified from deferred receipts to equity. The general nutrition genetic test purchase agreement expired in January 2008.



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On June 30, 2006, the Company entered into an agreement with Alticor to perform association studies on composite genotypes to skin inflammatory response. The agreement provided \$94,000 of funding, all of which was received in 2006. As of December 31, 2007, \$94,000 was included in deferred receipts on the accompanying consolidated balance sheets.

On August 17, 2006, Alticor purchased from the Company an aggregate of 2,750,037 shares of Common Stock for an aggregate purchase price of \$15,615,537, or \$5.6783 per share (based on the volume-weighted average closing stock price for the 20 consecutive trading days ending August 15, 2006). In addition, Alticor also agreed to extend to the Company a credit line of \$14,384,463 of working capital borrowings at any time until August 17, 2008 (See Note 8). The Company incurred \$83,707 of issuance costs associated with this private placement. As a condition of the financing, the Company initiated a rights offering of 2,533,234 shares of its Common Stock to existing stockholders (other than Alticor) at a per share price of \$5.6783. The costs, incurred as a result of the rights offering were \$66,356 and these costs have been netted against the proceeds received from the financing.

On March 29, 2007, the Company entered into an agreement, effective January 1, 2007, to expand the research being performed under its current agreements with Alticor through 2007. The Company received \$2,000,000 during 2007 under the research agreement, on a time and material basis.

On December 17, 2007, pursuant to the terms of certain promissory notes, Pyxis Innovations, Inc., an affiliate of Alticor, converted indebtedness due on December 31, 2007, representing an aggregate principal amount of \$2,000,000 and accrued interest of \$39,679, into 3,190,987 shares of the Company's common stock.

On February 25, 2008, the Company entered into research agreement (RA8), effective January 1, 2008, to expand the research being performed under its current agreements with Alticor through 2008. The Company received \$1,200,000 during 2008 under the research agreement, on a time and materials basis. Additionally, in 2008 the Company recognized as revenue approximately \$800,000 of previously deferred revenue. In addition to the \$800,000 of deferred revenue that was recognized under RA8, \$168,254 of funds previously paid to the Company by Alticor under research agreement 3 (RA3) and research agreement 4 (RA4), for which no work has been performed, will not need to be repaid to Alticor by the Company. Since the Company performed no prior services relating to the \$168,254 received from Alticor, and the Company is not required to perform any future services relating to these funds, the Company has determined that the funds should be classified as additional paid-in capital and are recorded as such on the Company's balance sheet.

On June 11, 2008, pursuant to the terms of the notes, Pyxis Innovations Inc., an affiliate of Alticor, converted the indebtedness due on June 30, 2008, representing an aggregate principal amount of \$595,336 and accrued interest of \$7,450, into 943,032 shares of the Company's common stock.

### **Note 5 Debt**

On March 5, 2003 as part of its strategic alliance with Alticor Inc., the Company was granted credit facilities as follows:

\$2,000,000 refinancing of notes previously held by Alticor, extending the maturity date to December 31, 2007 and reducing the interest rate;

\$595,336 refinancing on July 1, 2003 of bridge financing notes previously held by third parties, extending the maturity date to September 30, 2008 and reducing the interest rate; and

\$1,500,000 working capital credit line to initiate selected research agreements with third party entities approved by the board of directors of the Company.

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The credit facilities bore interest at 1% over the prime rate (5.0% at September 30, 2008), were collateralized by a security interest in the Company's intellectual property (except intellectual property related to periodontal disease and sepsis), and were convertible at the election of Alticor into shares of common stock at a stated conversion price equal to \$0.6392 per share. At September 30, 2008 there was no outstanding borrowing under these three credit facilities and the credit facilities had all expired.

On August 17, 2006, a new credit facility with Alticor was extended to provide the Company with access to an additional \$14,400,000 of working capital borrowings at any time prior to August 17, 2008. Any amounts borrowed will bear interest at prime, require quarterly interest payments and will mature on August 16, 2011. The principal amount of any borrowing under this credit facility is convertible at Alticor's election into a maximum of 2,533,234 shares of common stock, reflecting a conversion price of \$5.6783 per share. As a condition of this financing, the Company initiated a rights offering of 2,533,234 shares of its common stock to existing stockholders (other than Alticor) at a per share price of \$5.6783. The proceeds received from the rights offering reduced the availability under the credit facility. As a result of the rights offering, the availability under the credit facility has been reduced by \$68,208, leaving approximately \$14,300,000 available. On June 10, 2008, the Company borrowed \$4,000,000 under the credit facility which is the amount outstanding at December 31, 2008 leaving \$10.3 million of available credit. On August 12, 2008, this credit facility was extended to permit borrowing at any time prior to March 31, 2009. On March 11, 2009, this credit facility was extended to permit borrowing at any time prior to March 31, 2010.

On December 17, 2007, pursuant to the terms of the notes, Pyxis Innovations Inc., an affiliate of Alticor, converted the indebtedness due on December 31, 2007, representing an aggregate principal amount of \$2,000,000 and accrued interest of \$39,679, into 3,190,987 shares of the Company's common stock.

On June 11, 2008, pursuant to the terms of the notes, Pyxis Innovations Inc., an affiliate of Alticor, converted the indebtedness due on June 30, 2008, representing an aggregate principal amount of \$595,336 and accrued interest of \$7,450, into 943,032 shares of the Company's common stock.

### **Note 6 Fixed Assets**

The fixed assets' useful lives and balances at December 31, 2008 and 2008 consisted of the following:

	Useful Life	2008	2007
Computer software, computer equipment and office equipment	3 years	\$ 354,970	\$ 212,539
R&D lab equipment	5 years	269,196	270,649
Genetic testing lab and equipment	5 years	965,761	964,308
Furniture and fixtures	5 years	104,978	101,716
Leasehold improvements	5 years	265,563	265,563
	3 to		
Equipment under capital leases	5 years	22,920	63,390
		1,983,388	1,878,165
Less Accumulated depreciation and amortization		(1,509,353)	(1,299,458)
<b>Total</b>		<b>\$ 474,035</b>	<b>\$ 578,707</b>

Depreciation and amortization expense of these fixed assets was \$297,399, \$332,082, and \$337,336 for the years ended December 31, 2008, 2007, 2006, respectively.

Table of Contents**Note 7 Intangible Assets**

The intangible assets' useful lives and balances at December 31, 2008 and 2007 consisted of the following:

	Useful Life	2008	2007
<b>Amortizing intangible assets:</b>			
Retailer relationships	5 years	\$ 4,348,586	\$ 4,348,586
Trademarks	5 years	919,893	919,893
OTCceutical formulations	5 years	1,087,146	1,087,146
Non-compete agreements	3 years	150,000	150,000
Other	10 years	1,187,615	834,425
<b>Non-amortizing intangible assets:</b>			
Trademarks	Indefinite	764,000	764,000
		8,457,240	8,104,050
Less Accumulated amortization		(3,698,087)	(2,362,648)
<b>Net</b>		<b>\$ 4,759,153</b>	<b>\$ 5,741,402</b>

On March 25, 2008, The Company entered into an agreement with David A. Finkelstein and Timothy J. Richerson regarding the acquisition of the assets and business of the Alan James Group. Under the agreement, Finkelstein and Richerson agreed to release the Company from any further obligations under the Asset Purchase Agreement, relating to the acquisition of the assets and business of the Alan James Group on August 17, 2006. Finkelstein and Richerson agreed that no further amounts are or will become due under the Purchase Agreement (including its earn-out provisions), their Employment Agreements or other related documents (see Note 11).

If the amount initially recognized as if it was a liability exceeds the fair value of the consideration issued or issuable, that excess shall be allocated as a pro rata reduction of the amounts assigned to assets acquired in accordance with SFAS No. 141. The intangible balances as of December 31, 2007 reflect the resolution of the contingency resulting from the acquisition of the assets and business of the Alan James Group.

On March 25, 2008, pursuant to the terms of a settlement agreement between the Company and former officers of the Alan James Group including the acquisition of the assets and business of the Alan James Group, the Company agreed to pay a total of \$1,200,000. The \$1,200,000 due to sellers is recorded as a current liability at December 31, 2007. The Company applied \$600,000 of the settlement cost against the previously accrued separation expense that was recorded on June 30, 2007 and the remaining \$600,000 was applied against the \$2,130,374 aggregate total of contingent liabilities and amounts due under escrow recorded as part of the original acquisition. The remaining contingent liabilities and amounts due under escrow balance of \$1,530,374 was eliminated as no longer due and applied as a reduction in the balances on a pro rata basis of the intangibles assets recorded as part of the original acquisition, including the effect of term reduction on the non-compete agreements.

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Amortization expense of these intangible assets was \$1,335,439, \$1,651,242, and \$646,065 for the years ended December 31, 2008, 2007, and 2006, respectively. Expected amortization expense over the next four years is as follows:

<b>Year Ending December 31,</b>	
2009	\$ 1,334,347
2010	1,303,094
2011	861,824
2012	126,374
	<b>\$3,625,639</b>

### **Note 8 Accrued Expenses**

Accrued expenses consist of the following:

	<b>December 31,</b>	
	<b>2008</b>	<b>2007</b>
Payroll and vacation	\$ 128,413	\$ 345,040
Research		21,876
Accrued returns	986,125	908,309
Accrued trade promotions	574,873	422,465
Other	131,133	250,674
<b>Total</b>	<b>\$ 1,820,544</b>	<b>\$ 1,948,364</b>

As of December 31, 2008 and 2007, accrued returns include \$0 and \$104,720, respectively, of estimated future returns of OTCeutral products that were shipped prior to the Company's acquisition of the Alan James Group business.

### **Note 9 Commitments and Contingencies**

#### *Operating Leases*

The Company leases its offices and laboratory space under non-cancelable operating leases expiring at various dates through March 2014. The Company also leases certain office equipment under lease obligations, all of which are classified as operating leases. Future minimum lease commitments under lease agreements with initial or remaining terms of one year or more at December 31, 2008, are as follows:

<b>Year Ending December 31,</b>	
2009	\$ 509,750
2010	453,213
2011	459,569
2012	463,128
2013	472,623
Thereafter	118,749
	<b>\$2,477,032</b>

Rent expense was \$603,498, \$599,285 and \$497,457 for the years ended December 31, 2008, 2007, and 2006, respectively.

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*Acquisition of Data Bases*

In connection with the research agreement with Alticor dated March 5, 2003, the Company is obligated to purchase two clinical databases. As of June 30, 2004, the Company determined that this obligation met the criteria for accrual of SFAS No. 5, *Accounting for Contingencies*, and estimated the cost of these two databases at \$450,000. Accordingly, the Company recorded a liability and charged research and development expenses of \$450,000 at that time. As of December 31, 2008 and 2007, the Company had cumulative expenditures of \$427,944 and \$357,944, respectively, associated with the acquisition of these databases. The Company believes that the acquisition of the databases will not exceed the amount that the Company has estimated, however actual amounts could differ.

*Sponsored Research Agreements*

In connection with the research agreement with Alticor dated March 5, 2005, the Company entered into a sponsored research agreement with Yonsei University to conduct a clinical study. The sponsored research agreement was originally for an amount of \$499,882. This amount has been renegotiated to \$412,288 and is payable upon achievement of certain milestones. As of December 31, 2008, Yonsei University had achieved milestones valued at \$412,288.

In connection with both the research agreement with Alticor dated March 5, 2005 and March 29, 2007, the Company entered into a sponsored research agreement with SOGO Clinical Pharmacology Co., LTD (SOGO) to conduct a clinical study. The sponsored research agreement is for an amount of ¥26,346,600, or approximately \$224,000 (based on the exchange rate on March 30, 2007 of 117.56 ¥ to 1 US\$) and is payable upon achievement of certain milestones. As of December 31, 2007, SOGO had achieved milestones valued at ¥26,346,600 or \$232,131 based on actual payment in US dollars.

*Off-Balance Sheet Arrangements*

The Company has no off-balance sheet arrangements that have, or are reasonably likely to have, a current or future effect on its financial condition, results of operations and cash flows.

**Note 10 Capital Stock**

*Authorized Preferred and Common Stock*

At December 31, 2008, the Company had authorized 6,000,000 shares of \$0.001 par value Series A Preferred Stock, of which 5,000,000 were issued and outstanding. At December 31, 2008, the Company had authorized 100,000,000 shares of \$0.001 par value common stock of which 66,830,832 shares were outstanding or reserved for issuance. Of those, 31,799,381 shares were outstanding; 28,160,200 shares were reserved for the conversion of Series A Preferred to common stock; 704,436 shares were reserved for the conversion of approximately \$4,000,000 of debt; 3,527,845 shares were reserved for the exercise of authorized and outstanding stock options; 400,000 shares were reserved for the exercise of outstanding warrants to purchase common stock at an exercise price of \$2.50 per share which is exercisable currently with expiration date of August 9, 2012; 422,184 shares were reserved for the exercise of rights held under the Employee Stock Purchase Plan; 1,816,786 shares were reserved for the issuance upon the conversion of convertible notes.

*Series A Preferred Stock*

On March 5, 2003, the Company entered into a Stock Purchase Agreement with Alticor, pursuant to which Alticor purchased from the Company 5,000,000 shares of Series A Preferred Stock for \$7,000,000 in cash on that date, and an additional \$2,000,000 in cash that was paid, as a result of the Company achieving a certain milestone, on March 11, 2004.

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The Series A Preferred Stock accrues dividends at the rate of 8% of the original purchase price per year, payable only when, as and if declared by the Board of Directors and are non-cumulative. To date, no dividends have been declared on these shares. If the Company declares a distribution, with certain exceptions, payable in securities of other persons, evidences of indebtedness issued by the Company or other persons, assets (excluding cash dividends) or options or rights to purchase any such securities or evidences of indebtedness, then, in each such case the holders of the Series A Preferred Stock shall be entitled to a proportionate share of any such distribution as though the holders of the Series A Preferred Stock were the holders of the number of shares of our Common Stock into which their respective shares of Series A Preferred Stock are convertible as of the record date fixed for the determination of the holders of our Common Stock entitled to receive such distribution.

In the event of any liquidation, dissolution or winding up of the Company, whether voluntary or involuntary, the holders of the Series A Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the Company's assets or surplus funds to the holders of its Common Stock by reason of their ownership thereof, the amount of two times the then-effective purchase price per share, as adjusted for any stock dividends, combinations or splits with respect to such shares, plus all declared but unpaid dividends on such share for each share of Series A Preferred Stock then held by them. The liquidation preference at December 31, 2008 was \$18,000,000. After receiving this amount, the holders of the Series A Preferred Stock shall participate on an as-converted basis with the holders of common stock in any of the remaining assets.

Each share of Series A Preferred Stock is convertible at any time at the option of the holder into a number of shares of the Company's common stock determined by dividing the then-effective purchase price (\$1.80, and subject to further adjustment) by the conversion price in effect on the date the certificate is surrendered for conversion. As of December 31, 2008, the Series A Preferred Stock was convertible into 28,160,200 shares of Common Stock reflecting a current conversion price of \$0.3196 per share.

Each holder of Series A Preferred Stock is entitled to vote its shares of Series A Preferred Stock on an as-converted basis with the holders of Common Stock as a single class on all matters submitted to a vote of the stockholders, except as otherwise required by applicable law. This means that each share of Series A Preferred Stock will be entitled to a number of votes equal to the number of shares of Common Stock into which it is convertible on the applicable record date.

### **Note 11 Stock-Based Compensation Arrangements**

Stock-based compensation arrangements consisted of the following as of December 31, 2008: three share-based compensation plans, restricted stock awards; an employee stock purchase plan; and employee compensation agreements. Total compensation cost that has been charged against income for stock-based compensation arrangements is as follows:

	Year Ended December 31,		
	2008	2007	2006
Stock option grants beginning of period	\$ 36,579	\$ 158,676	\$ 623,967
Stock-based arrangements during the period:			
Stock option grants	111,989	1,460	
Restricted stock issued	9,781	10,073	206,200
Unrestricted stock issued:			
Employee stock purchase plan	1,774	2,955	9,875
Employment Agreements			229,646
	\$ 160,123	\$ 173,164	\$ 1,069,688

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During the years 2008, 2007, and 2006, the Company granted stock options 852,000, 26,000 and 0, respectively, to employees and directors. For purposes of determining the stock-based compensation expense for grant awards issued after January 1, 2006, the Black-Scholes option-pricing model was used with the following weighted-average assumptions:

	2008
Risk-free interest rate	3.2%
Expected life	6.5 years
Expected volatility	83.7%

Using these assumptions, the weighted average grant date fair value of options granted in 2008 was \$0.81.

#### *Restricted Stock Awards*

During the years ended December 31, 2008 and 2007, the Company did not grant any restricted stock awards. During the year ended December 31, 2006, the Company granted 33,385 restricted stock awards to employees, of which 28,497 had their restrictions lapse and 4,888 had been canceled as of December 31, 2006. Holders of these awards participate fully in the rewards of stock ownership of the Company, including voting and dividend rights. The employees are not required to pay any consideration to the Company for these restricted stock awards. The recognition of compensation expense for these types of awards did not change as a result of adopting SFAS No. 123R on January 1, 2006. The Company measured the fair value of the shares based on the last reported price at which the Company's common stock traded on the date of the grant and compensation cost is recognized over the remaining service period.

As December 31, 2008 and 2007 there were no restricted shares outstanding, granted, lapsed or canceled. The following table details restricted stock activity for the years ended December 31, 2006:

	2006	Weighted Avg Grant Date Fair Value
	Number of Shares	
Outstanding, beginning of year		
Granted	33,385	\$ 6.85
Lapsed	(28,497)	6.83
Canceled	(4,888)	6.94
Outstanding, end of year		\$

#### *Employee Stock Purchase Plan*

Purchases made under the Company's Employee Stock Purchase Plan are now deemed to be compensatory under SFAS No. 123R because employees may purchase stock at a price equal to 85% of the fair market value of the Company's common stock on either the first day or the last day of a calendar quarter, whichever is lower. During the year ended December 31, 2008 and 2007, employees purchased 11,747 and 7,702 shares, respectively, of common stock at a weighted-average purchase price of \$0.87 and \$2.17, while the weighted-average fair market value was \$1.03 and \$2.55 per share, resulting in compensation expense of \$1,774 and \$2,955.

#### *Employment Agreements*

On March 25, 2008, The Company entered into an agreement with David A. Finkelstein, Timothy J. Richerson, Alan James Group, LLC, AJG-NB, LLC, AJG-BI, LLC and AJG-GNC, LLC,

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collectively the "Claimants", pursuant to which the Claimants agreed to release the Company from any further obligations under the Asset Purchase Agreement, relating to the acquisition of the assets and business of the Alan James Group, the Company entered into with the Claimants on August 17, 2006 and related to the employment of Messrs. Richerson and Finkelstein by the Company, and the Company agreed to release the Claimants from certain obligations under the Asset Purchase Agreement and related to the employment of Messrs. Richerson and Finkelstein. Pursuant to the agreement, the Company agreed to pay the Claimants an aggregate of \$1,200,000. As of June 30, 2007 the Company had accrued an aggregate expense of \$600,000 in connection with the departures of Messrs. Richerson and Finkelstein, and the remaining \$600,000 was applied against the \$2,130,374 aggregate total of contingent liabilities and amounts due under escrow recorded as part of the original acquisition. The remaining contingent liabilities and amounts due under escrow balance of \$1,530,374 was eliminated as no longer due and applied as a reduction in the balances on a pro rata basis of the intangibles assets recorded as part of the original acquisition. The Company agreed to limit the duration of non-competition restrictions applicable to Richerson to July 31, 2009 and Finkelstein to July 2, 2009. The Claimants agreed that no further amounts are or will become due under the Purchase Agreement (including its earn-out provisions), their Employment Agreements or other related documents. Under applicable law the Claimants were entitled to a seven-day right to rescind this agreement. This period expired on April 2, 2008.

Effective as of January 22, 2008, the Company entered into a two-year employment agreement with Lewis H. Bender for the position of Chief Executive Officer that provides for automatic annual renewal terms. The agreement also provides that Mr. Bender will serve as a member of the Company's Board of Directors for as long as he serves as the Company's Chief Executive Officer. Mr. Bender joined the Board of Directors on July 24, 2008. The agreement further provides 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 the Company's financial performance. In addition, the agreement provides 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 the Company's common stock at an exercise price equal to the closing price as reported on the NYSE Alternext US LLC on the effective date of the agreement, which option shall vest in equal annual installments on the option grant date and February 1 of each of the years 2009, 2011, 2012 and 2013.

Mr. Bender's agreement is terminable by (i) the Company with immediate effect if with cause or upon thirty days prior written notice if without cause, or (ii) Mr. Bender upon thirty days prior written notice. If the Company terminates Mr. Bender without cause and at any time during the first year of employment, then the Company will pay Mr. Bender, 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, if during the second year of employment, then the Company will pay Mr. Bender an amount equal twelve months of his base salary and during the third year of employment an amount equal to eighteen months. This is in addition to continued healthcare coverage under the same terms as above and to the same extent that the Company provided healthcare coverage during his employment, if Mr. Bender elects to continue participation in the Company's health plan. If the Company terminates Mr. Bender in connection with a Cessation of our Business (as defined in the agreement), then Mr. Bender is entitled to, in addition to any accrued, but unpaid compensation prior to the termination, an amount equal to 12 months of his base salary if within the first year of employment, 18 months if within the second year, and 24 months if within the third year. Mr. Bender will be entitled to continued participation in the employee health plan through the same yearly terms mentioned previously, following termination.

Effective as of April 30, 2008, the Company entered into a one-year employment agreement with Eliot M. Lurier for the position of Chief Financial Officer that provides for automatic annual renewal



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terms. The agreement provides for a minimum annual base salary of \$217,000, a sign-on bonus of up to \$15,000 payable following the first four months of employment and annual discretionary bonuses of up to 30% of his base salary in effect during the year for which the bonus related. 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. Upon hire, Mr. Lurier was granted an option to purchase 40,000 shares of the Company's common stock at an exercise price equal to the closing price as reported on the NYSE Alternext US LLC on the grant date of the option. The option will vest in equal installments of 8,000 shares on each of the first five anniversaries of the grant date.

Mr. Lurier's agreement is terminable by (i) the Company with immediate effect if with cause or upon thirty days prior written notice if without cause, or (ii) Mr. Lurier upon thirty days prior written notice. If the Company terminates Mr. Lurier without cause and at any time following the three-month anniversary of April 30, 2008, then the Company will pay Mr. Lurier, 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 and six months of continued healthcare coverage, to the same extent that the Company provided healthcare coverage during his employment, if Mr. Lurier elects to continue participation in the Company's health plan.

On November 12, 2008, the Company entered into a new employment agreement with our President and Chief Scientific Officer, Kenneth S. Kornman, for a three-year term, commencing on March 31, 2009, which is the date after his current employment agreement expires. Under the new agreement, Dr. Kornman will receive an annual salary of \$360,000 and will be eligible to receive annual bonuses solely at the discretion of the Board of Directors. Under the agreement, Dr. Kornman is entitled to receive a stock option to purchase 75,000 shares of common stock, at an exercise price equal to the closing price as reported on the NYSE Alternext US LLC on the grant date. The option will vest with respect to 30,000 shares on the grant date of the option and with respect to 15,000 shares on each of March 31, 2010, 2011, and 2012. Under the agreement, Dr. Kornman will continue to be entitled to participate in employee benefit plans that we provide or may establish for the benefit of our executive management generally (for example, group life, disability, medical, dental and other insurance, retirement pension, profit-sharing and similar plans). In addition, while Dr. Kornman remains employed by us, we will reimburse him \$3,296 annually for payment of life insurance premiums.

Dr. Kornman's agreement is terminable by the Company with immediate effect if 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 the Company terminates Dr. Kornman without cause or Dr. Kornman terminates his employment with good reason, then Dr. Kornman is entitled to, in addition to any accrued, but unpaid compensation prior to the termination, an amount equal to twelve months of his base salary and continued participation in any employee health plan for up to twelve months following termination. If the Company terminates Dr. Kornman in connection with a Cessation of our Business (as defined in the agreement), then Dr. Kornman is entitled to, in addition to any accrued, but unpaid compensation prior to the termination, an amount equal to three months of his base salary and continued participation in any employee health plan for up to three months following termination.

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As of December 31, 2008, no shares of the Company's common stock have been issued pursuant to these agreements. The recognition of compensation expense for this type of award did not change as a result of adopting SFAS No. 123R on January 1, 2006. The Company measures the fair value of the shares, prior to issuance, based on the last reported price at which the Company's common stock traded for the reporting period and compensation cost is recognized ratably over the employment period required to earn the stock award. At time of issuance, the Company will measure the fair value of the shares based on the last reported price at which the Company's common stock traded on the date of the issuance and will record a cumulative adjustment, if any.

A summary of stock compensation cost included in the statement of operations for the year ended December 31, 2008 is as follows:

	Year Ended December 31,		
	2008	2007	2006
Cost of revenue	21,775	25,961	35,604
Research and development expenses	27,020	114,546	325,377
Selling, general and administrative expenses	111,328	32,657	708,707
Total	160,123	173,164	1,069,688

### *Stock Option Plans*

In June 1996, the Company's shareholders approved the adoption of the 1996 Equity Incentive Plan (the 1996 Plan). The 1996 Plan provides for the award of nonqualified and incentive stock options, restricted stock and stock bonuses to employees, directors, officers and consultants of the Company. A total of 1,300,000 shares of the Company's common stock had been reserved for award under the 1996 Plan of which 388,934 remained unissued at December 31, 2007. This plan has been terminated with respect to new grants.

In June 2000, the Company's shareholders approved the adoption of the Interleukin Genetics, Inc. 2000 Employee Stock Compensation Plan (the 2000 Plan). The 2000 Plan provides for the award of nonqualified and incentive stock options, restricted stock, and stock awards to employees, directors, officers, and consultants of the Company. A total of 2,000,000 shares of the Company's common stock have been reserved for award under the 2000 Plan of which 138,982 were available for future issuance at December 31, 2007.

In June 2004, the Company's shareholders approved the adoption of the Interleukin Genetics, Inc. 2004 Employee Stock Compensation Plan (the 2004 Plan). The 2004 Plan provides for the award of nonqualified and incentive stock options, restricted stock, and stock awards to employees, directors, officers, and consultants of the Company. A total of 2,000,000 shares of the Company's common stock have been reserved for award under the 2004 Plan of which 1,287,946 were available for future issuance at December 31, 2007.

Nonqualified and incentive stock options with a life of 10 years are granted at exercise prices equal to the fair market value of the common stock on the date of grant. Options generally vest over a period of three to five years.

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A summary of the status of the Company's stock options, issued under the 1996, 2000 and 2004 Plans and outside of these plans, at December 31, 2008, 2007 and 2006, and changes during these years is presented in the tables below:

The following table details all stock option activity for the years ended December 31, 2008, 2007 and 2006:

	2008		2007		2006	
	Shares	Weighted Avg Exercise Price	Shares	Weighted Avg Exercise Price	Shares	Weighted Avg Exercise Price
Outstanding, beginning of year	1,366,406	\$ 3.11	1,893,015	\$ 2.99	2,477,815	\$ 2.69
Granted	852,000	1.09	26,000	1.21		
Exercised			(194,917)	1.78	(539,050)	1.54
Canceled	(37,333)	2.37	(282,567)	3.19	(43,750)	4.19
Expired	(80,156)	2.41	(75,125)	2.58	(2,000)	2.85
Outstanding, end of year	2,100,917	\$ 2.33	1,366,406	\$ 3.11	1,893,015	\$ 2.99
Exercisable, end of year	1,372,417	\$ 2.96	1,313,906	\$ 3.13	1,646,015	\$ 2.94

The following table details further information regarding stock options outstanding and exercisable at December 31, 2008:

Range of Exercise Price:	Stock Options Outstanding			Stock Options Exercisable		
	Shares	Weighted Avg remaining contractual life (years)	Weighted Avg Exercise Price	Shares	Weighted Avg Exercise Price	
\$0.01 \$0.49	100,000	9.89	\$ 0.47	30,000	\$ 0.48	
\$0.50 \$0.99	49,250	2.87	0.85	45,750	0.85	
\$1.00 \$1.49	903,000	8.00	1.18	254,000	1.16	
\$1.50 \$1.99	32,000	4.14	1.66	32,000	1.66	
\$2.00 \$2.49	6,500	4.59	2.24	6,500	2.24	
\$2.50 \$2.99	528,000	0.93	2.87	528,000	2.87	
\$3.00 \$3.49						
\$3.50 \$3.99	87,667	4.19	3.65	82,667	3.65	
\$4.00 \$4.49	32,500	5.49	4.13	31,500	4.14	
\$4.50 \$4.99	362,000	3.11	4.70	362,000	4.70	
\$0.01 \$4.99	2,100,917	5.08	\$ 2.33	1,372,417	\$ 2.96	

#### Aggregate intrinsic value

The aggregate intrinsic value in the preceding table represents the total pre-tax intrinsic value, based on the last reported price at which the Company's common stock traded on December 31, 2008, the last trading day of fiscal 2008, of \$0.20, which would have been received by the option holders had they exercised their options as of that date.

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The following table summarizes the status of the Company's non-vested options for the years ended December 31, 2008, 2007 and 2006:

	2008		2007		2006	
	Shares	Weighted Avg Exercise Price	Shares	Weighted Avg Exercise Price	Shares	Weighted Avg Exercise Price
Non-vested options, beginning of year	52,500	\$ 2.60	247,000	\$ 3.29	582,000	\$ 3.78
Granted	852,000	1.09	26,000	1.21		
Vested	(147,000)	1.25	(30,750)	3.63	(291,250)	4.14
Forfeited	(29,000)	2.07	(189,750)	3.14	(43,750)	4.19
Non-vested options, end of year	728,500	\$ 1.14	52,500	\$ 2.60	247,000	\$ 3.29

As of December 31, 2008 and 2007, there was approximately \$600,000 and \$70,000, respectively, of total unrecognized cost related to non-vested share-based compensation arrangements granted under the Company's stock plans. That cost is expected to be recognized over a weighted average period of approximately five years. Options to purchase 0 and 194,917 shares were exercised during the year ended December 31, 2008 and 2007; these options had an intrinsic value of approximately \$0 and \$464,000 on their date of exercise, respectively. The fair value of stock options that vested during the year ended December 31, 2008 and 2007 was approximately \$188,000 and \$83,000, respectively.

### **Note 12 Employee Benefit Plan**

In 1998, the Company adopted a profit sharing plan covering substantially all of its employees. Under the profit sharing plan, the Company may, at the discretion of the Board of Directors, contribute a portion of the Company's current or accumulated earnings. In September 1998, the Company amended and restated the profit sharing plan to include provisions for Section 401(k) of the Internal Revenue Code, which allowed for pre-tax employee contributions to the plan. Under the amended and restated plan, the Company may, at the discretion of the Board of Directors, match a portion of the participant contributions. The Company currently contributes 25% of any amount employees contribute, up to a maximum of \$1,500 per participant per calendar year. Company contributions, if any, are credited to the participants' accounts and vest over a period of five years based on the participants' initial service date with the Company. During the years ended December 31, 2008, 2007 and 2006, \$21,639, \$10,199, and \$14,273 was contributed to the plan, respectively.

### **Note 13 Income Taxes**

For the years ended December 31, 2008, 2007 and 2006, the provision for income taxes was \$26,102, \$15,500, and \$7,000, respectively. The Company's federal statutory income tax rate for 2008, 2007 and 2006 was 34%. The Company used a blended federal and state income tax rate of 39%, 40% and 40% for 2008, 2007 and 2006, respectively. Interleukin Genetics, Inc. has incurred losses from operations but has not recorded an income tax benefit for 2008, 2007 or 2006 as the Company has recorded a valuation allowance against its net operating losses and other net deferred tax assets due to uncertainties related to the realizability of these tax assets. AJG Brands, Inc. had taxable income for 2008 and 2007. AJG Brands, Inc. recorded a state income tax benefit for 2007 due to utilization of the net operating loss generated in 2006, against which a valuation allowance was recorded, and from expectations concerning realizability of deferred tax assets. The state tax expense and benefit recorded by AJG Brands, Inc. is a result of filing in separate entity filing jurisdictions.

Deferred tax assets and liabilities are determined based on the difference between financial statement and tax bases using enacted federal and state tax rates in effect for the year in which the

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differences are expected to reverse. As of December 31, 2008 and 2007, the approximate income tax effect of the Company's deferred tax assets (liabilities) consisted of the following:

	2008	2007
Deferred tax asset:		
Tax effect of:		
Net operating loss carryforwards	\$ 20,926,000	\$ 18,527,000
Accrued expenses	615,000	491,000
Amortization of definite lived intangible assets	1,332,000	731,000
Non-qualified stock option compensation	193,000	186,000
Depreciation	83,000	63,000
Other	59,000	96,000
Patents	(359,000)	(256,000)
Research tax credit carryforwards	1,630,000	1,445,000
Total deferred tax assets (liabilities)	24,479,000	21,283,000
Valuation allowance	(24,421,000)	(21,242,000)
Net deferred tax assets	58,000	41,000
Deferred tax liability:		
Amortization of indefinite lived intangible assets	(5,000)	(31,000)
Net deferred tax assets (liabilities)	\$ 53,000	\$ 10,000

A portion of the funds received from Alticor and its subsidiaries for research and other agreements are reflected as equity in the financial statements but are reported as revenue for tax purposes. In 2007, no fund received from Alticor and its subsidiaries was reflected as equity. In 2008, the Company recognized \$168,254 of funds previously paid to the Company by Alticor under research agreement 3 (RA3) and research agreement 4 (RA4), for which no work has been performed and will not need to be repaid to Alticor by the Company. Since the Company performed no prior services relating to the \$168,254 received from Alticor, and the Company is not required to perform any future services relating to these funds, the Company has determined that the funds should be classified as additional paid-in capital and are recorded as such on the Company's balance sheet as of December 31, 2008.

As of December 31, 2008, the Company had gross net operating loss (NOL) and research tax credit carryforwards of approximately \$59.3 million and \$1.2 million, respectively, for federal income tax purposes, expiring in varying amounts through the year 2028. Of the \$59.3 million NOL loss carryforward, \$2.5 million relates to stock-based compensation and has not been reflected in the deferred taxes and when the benefit of these losses, if any, is realized, it would result in a credit to additional paid in capital as a component of stockholder's equity.

As of December 31, 2008, the Company had gross NOL and research tax credits carryforwards of approximately \$23.6 million and \$.6 million for state income tax purposes, expiring in varying amounts through the year 2013. Of the \$23.6 million net operating loss carryforward, \$2.5 million relates to stock-based compensation and has not been reflected in the deferred inventory and when the benefit of these losses, if any, is realized, it would result in a credit to additional paid in capital as a component of stockholder's equity.

The Company's ability to use its NOL and tax credit carryforwards to reduce future taxes is subject to the restrictions provided by Section 382 of the Internal Revenue Code of 1986. These restrictions provide for limitations on the Company's utilization of its NOL and tax credit carryforwards following a greater than 50% ownership change during the prescribed testing period. On March 5, 2003, the Company had such a change. As a result, all of the Company's NOL carryforwards as of that date are

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limited in utilization. The annual limitation may result in the expiration of certain of the carryforwards prior to utilization.

The provision for income taxes differs from the federal statutory rate due to the following:

	Years Ended December 31,		
	2008	2007	2006
Tax at statutory rate	(34.0)%	(34.0)%	(34.0)%
State taxes, net of federal benefit	(6.5)	(6.1)	(6.1)
Research and Experimentation credit	(2.6)	(2.9)	(2.1)
Research payments	0.9		8.4
SFAS No. 123 expense	0.7	0.8	4.0
Forfeited prepayment of genetic test services			7.4
Other	(5.7)	5.6	3.4
Change in valuation allowance	47.6	36.8	19.1
Effective tax rate	0.4%	0.2%	0.1%

**Note 14 Segment Information**

The Company follows SFAS No. 131, *Disclosures about Segments of an Enterprise and Related Information* (SFAS No. 131), which establishes standards for reporting information about operating segments in annual and interim financial statements, and requires that companies report financial and descriptive information about its reportable segments based on a management approach. SFAS No. 131 also establishes standards for related disclosures about products and services, geographic areas and major customers. As a result of the acquisition of the assets and business of the Alan James Group in August 2006, the Company has two reportable segments: Personalized Health and Consumer Products.

Through its Personalized Health business segment, the Company develops genetic tests for sale into the emerging personalized health market and performs testing services that can help individuals improve and maintain their health through preventive measures. Through its Consumer Products business segment, the Company develops, markets and sells nutritional products and engages in related activities. The Company's principal operations and markets are located in the United States. The Company has no operations outside of the United States. For the years ended December 31, 2008 and 2007, the Company had minimal royalty income derived from distributors outside the United States, minimal expenses derived from research partners outside the United States and minimal assets outside the United States. The Company does not believe that foreign currency exchange rate risk is material and does not use derivative financial instruments to manage foreign currency fluctuation risk.

The accounting policies of each of the segments are the same as those described in the summary of significant accounting policies. The Company evaluates performance based on revenue and earnings before interest, taxes, depreciation and amortization (EBITDA). Common costs not directly attributable to a segment are included in our Personalized Health Segment. These costs include corporate costs such as legal, audit, tax and other professional fees.

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The following is a summary of the Company's operations by operating segment:

	Year Ended December 31,		
	2008	2007	2006
<b>Personalized Health:</b>			
Revenue	\$ 2,620,687	\$ 2,827,284	\$ 2,680,762
EBITDA	\$ (6,613,283)	\$ (4,754,531)	\$ (5,090,996)
Interest, net	28,520	182,501	44,627
Provision for income taxes	31,000	(31,000)	
Depreciation	(278,617)	(291,813)	(320,281)
Amortization	(100,694)	(530,705)	(516,206)
Net loss	\$ (6,933,074)	\$ (5,425,548)	\$ (5,882,856)
Total Assets	\$ 11,563,015	\$ 15,250,941	\$ 19,291,364
<b>Consumer Products:</b>			
Revenue	\$ 7,394,293	\$ 6,873,209	\$ 2,050,264
EBITDA	\$ 1,593,375	\$ 791,970	\$ (452,388)
Interest, net	(1,057)	17,584	4,275
Provision for income taxes	(57,102)	15,500	(7,000)
Depreciation	(18,782)	(40,270)	(17,054)
Amortization	(1,234,745)	(1,578,021)	(591,733)
Net income/(loss)	\$ 281,689	\$ (793,237)	\$ (1,063,900)
Total Assets	\$ 591,373	\$ 1,135,008	\$ 3,338,921
<b>Consolidated:</b>			
Total revenue	\$ 10,014,980	\$ 9,700,493	\$ 4,731,026
EBITDA	\$ (5,019,908)	\$ (3,962,561)	\$ (5,543,384)
Interest, net	27,463	200,085	48,902
Provision for income taxes	(26,102)	(15,500)	(7,000)
Depreciation	(297,399)	(332,083)	(337,335)
Amortization	(1,335,439)	(2,108,726)	(1,107,939)
Net loss	\$ (6,651,385)	\$ (6,218,785)	\$ (6,946,756)
Total Assets	\$ 12,154,388	\$ 16,385,949	\$ 22,630,285

The Company has no operations outside of the United States. For the years ended December 31, 2008, 2007 and 2006, the Company had minimal royalty income derived from distributors outside the United States, minimal expenses derived from research partners outside the United States and minimal assets outside of the United States. The Company does not believe this risk is material and does not use derivative financial instruments to manage foreign currency fluctuation risk.

Table of Contents**Note 15 Selected Quarterly Financial Data (Unaudited)**

The following are selected quarterly financial data for the years ended December 31, 2008 and 2007:

	Quarter Ended			
	March 31, 2008	June 30, 2008	September 30, 2008	December 31, 2008
Revenue	\$ 2,654,523	\$ 2,476,234	\$ 2,171,595	\$ 2,712,628
Gross profit	\$ 1,318,551	\$ 1,169,759	\$ 1,171,330	\$ 1,617,422
Loss from operations	\$ (1,908,239)	\$ (1,676,129)	\$ (1,659,029)	\$ (1,409,350)
Net loss	\$ (1,875,102)	\$ (1,666,345)	\$ (1,641,849)	\$ (1,468,089)
Basic and diluted net loss per common share	\$ (0.06)	\$ (0.05)	\$ (0.05)	\$ (0.05)

	Quarter Ended			
	March 31, 2007	June 30, 2007	September 30, 2007	December 31, 2007
Revenue	\$ 2,419,277	\$ 2,408,469	\$ 2,561,285	\$ 2,311,462
Gross profit	\$ 1,172,917	\$ 1,259,389	\$ 1,353,563	\$ 1,215,178
Loss from operations	\$ (1,607,978)	\$ (1,900,480)	\$ (1,009,119)	\$ (1,428,847)
Net loss	\$ (1,667,909)	\$ (1,964,689)	\$ (1,081,659)	\$ (1,500,532)
Basic and diluted net loss per common share	\$ (0.06)	\$ (0.07)	\$ (0.04)	\$ (0.05)

**Note 16 Industry Risk and Concentration**

The Company develops genetic risk assessment tests under contract, performs research for its own benefit and provides research services to a collaborative partner. As of December 31, 2008, the Company has introduced three genetic risk assessment tests commercially, two of which are sold exclusively through its strategic partner Alticor, and is in various stages of development for several other genetic risk assessment tests. Commercial success of the Company's genetic risk assessment tests will depend on the marketing success of its collaborative partner and consumer acceptance of the tests as scientific, credible and cost-effective.

Research in the field of disease predisposing genes and genetic markers is intense and highly competitive. The Company has many competitors in the United States and abroad that have considerably greater financial, technical, marketing, and other resources available. If the Company does not discover disease predisposing genes or genetic markers and develop risk assessment tests and launch such services or products before its competitors, then the potential for significant revenues may be reduced or eliminated.

The market for health supplement products is competitive and other companies sell products similar to those sold by the Company. The Company's sales and margins may be influenced by competitor actions or other factors, such as the cost of product, contract terms and general market conditions.

For the year ended December 31, 2008, approximately 51.7% of the consumer products revenue was from a single customer. As of December 31, 2008, approximately 47.6% of the trade accounts receivable was from that same customer.

During 2008, the majority of the Company's consumer products were sourced from three suppliers. The Company pays a contracted rate per completed unit for each product. The suppliers are responsible for procuring raw materials and packaging finished products. If the Company is unable to maintain the relationship with these suppliers, it will need to find an alternative.



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**Note 17 Subsequent Event**

On March 11, 2009 The Company entered into an amended and restated note purchase agreement, dated as of March 10, 2009, with Pyxis Innovations Inc., a majority stockholder of the Company ("Pyxis"), to extend the availability of the credit facility described below until March 31, 2010. The credit facility had been scheduled to expire on March 31, 2009.

The original note purchase agreement, entered into on October 23, 2002, was subsequently amended on November 13, 2002, January 28, 2003, March 5, 2003, February 23, 2006, August 17, 2006 and August 12, 2008. Pursuant to the note purchase agreement, as so amended, Pyxis extended to the Company a credit facility in the amount of \$14.3 million. In June 2008, the Company drew down \$4.0 million under this credit facility, leaving \$10.3 million of remaining availability. The Company may now borrow under the credit facility until March 31, 2010. All such borrowing becomes due on August 16, 2011 and is convertible into shares of common stock at a conversion price equal to \$5.68 per share.

**Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

None.

**Item 9A. Controls and Procedures**

***Evaluation of Disclosure Controls and Procedures***

The Company's senior management is responsible for establishing and maintaining a system of disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act") designed to ensure that the information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Exchange Act is accumulated and communicated to the issuer's management, including its principal executive officer or officers and principal financial officer or officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Our Principal Executive Officer and Principal Financial Officer have evaluated the effectiveness of the design and operation of our disclosure controls and procedures under the supervision of and with the participation of management, as of the end of the period covered by this report. Based on that evaluation, our management has concluded that our disclosure controls and procedures are effective.

**Management's Report on Internal Control over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with generally accepted accounting principles in the United States. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control - Integrated Framework* issued by the

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Committee of Sponsoring Organizations of the Treadway Commission. Based on that evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2008.

**Changes in Internal Control and Financial Reporting.**

No change in internal control over financial reporting occurred during the quarter ended December 31, 2008 that has materially affected, or is reasonably likely to materially affect, such internal control over financial reporting.

There are inherent limitations in any system of internal control. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that its objectives are met. Further, the design of a control system must consider that resources are not unlimited and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected. These inherent limitations include the realities that judgment in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls.

**Item 9A(T). *Controls and Procedures***

This Annual Report on Form 10-K does not include an attestation report of the Company's registered public accounting firm regarding the Company's internal control over financial reporting. Management's report on internal control over financial reporting was not subject to attestation by the Company's registered public accounting firm pursuant to temporary rules of the Securities and Exchange Commission that permit the Company to provide management's report on internal control over financial reporting without an accompanying attestation report by the Company's registered public accounting firm in this Annual Report on Form 10-K.

**Item 9B. *Other Information***

None

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**PART III**

**Item 10. *Directors, Executive Officers and Corporate Governance***

Information responsive to this item is incorporated by reference from the relevant discussions in our Proxy Statement for the 2009 Annual Meeting of Stockholders under the captions "Management," "Compliance with Section 16(a) of the Securities Exchange Act of 1934," "Code of Conduct and Ethics," and "Corporate Governance Matters."

**Item 11. *Executive Compensation***

Information responsive to this item is incorporated by reference from the relevant discussions in our Proxy Statement for the 2009 Annual Meeting of Stockholders under the captions "Executive Compensation," "Compensation Committee Interlocks and Insider Participation," and "Compensation Committee Report."

**Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters***

Information responsive to this item is incorporated by reference from the relevant discussions in our Proxy Statement for the 2009 Annual Meeting of Stockholders under the captions "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information."

**Item 13. *Certain Relationships and Related Transactions, and Director Independence***

Information responsive to this item is incorporated by reference from the relevant discussions in our Proxy Statement for the 2009 Annual Meeting of Stockholders under the captions "Certain Relationships and Related Transactions" and "Corporate Governance Matters - Director Independence."

**Item 14. *Principal Accountant Fees and Services***

Information responsive to this item is incorporated by reference from the relevant discussions in our Proxy Statement for the 2009 Annual Meeting of Stockholders under the caption "Principal Accountant Fees and Services."

Table of Contents**PART IV****Item 15. Exhibits and Financial Statement Schedules**

(a)

Documents Filed as Part of this Report

(1) Financial Statement Schedules:

Schedule II: Valuation and Qualifying Accounts for the Years Ended December 31, 2006, 2007 and 2008

All other information required by this item is not applicable or has been included in the consolidated financial statements and related notes thereto.

**INTERLEUKIN GENETICS, INC. AND SUBSIDIARIES****SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS****YEARS ENDED DECEMBER 31, 2006, 2007 AND 2008**

Description	Balance at Beginning of Year	Assumed in the Acquisition	Charges to Cost and Expense	Deductions	Balance at End of Year
<b>Allowance for Doubtful Accounts:</b>					
Year Ended December 31, 2006	\$	\$	\$ 28,000	\$	\$ 28,000
Year Ended December 31, 2007	\$ 28,000	\$	\$	\$ (21,304)	\$ 6,696
Year Ended December 31, 2008	\$ 6,696	\$	\$	\$	\$ 6,696
<b>Allowance for Sales Returns:</b>					
Year Ended December 31, 2006	\$	\$ 1,833,960	\$ 324,035	\$ (737,730)	\$ 1,420,265
Year Ended December 31, 2007	\$ 1,420,265	\$	\$ 1,365,616	\$ (1,877,574)	\$ 908,307
Year Ended December 31, 2008	\$ 908,307	\$	\$ 1,042,892	\$ (965,074)	\$ 986,125
<b>Allowance for Trade Promotions:</b>					
Year Ended December 31, 2006	\$	\$ 303,366	\$ 261,491	\$ (433,530)	\$ 131,327
Year Ended December 31, 2007	\$ 131,327	\$	\$ 845,404	\$ (554,266)	\$ 422,465
Year Ended December 31, 2008	\$ 422,465	\$	\$ 584,018	\$ (431,610)	\$ 574,873

(2) Exhibits:

The exhibits listed below are filed as part of or incorporated by reference into this Annual Report. Where certain exhibits are incorporated by reference from a previous filing, the exhibit numbers and previous filings are identified in parentheses.

Exhibit No.	Identification of Exhibit
3.1	Articles of Incorporation of the Company, as amended (incorporated herein by reference to Exhibit 3.1 of the Company's Quarterly Report on Form 10-Q filed August 14, 2000)
3.2	Amended and restated bylaws of the Company dated July 24, 2008 (incorporated by reference to the Current Report on Form 8-K filed on July 28, 2008)
3.3	Certificate of Designations, Preferences and Rights of Series A Preferred Stock (incorporated herein by reference to Exhibit 3.1 of the Company's Current Report filed on Form 8-K on March 5, 2003)
3.4	Certificate of Amendment to Certificate of Incorporation, as filed with the Delaware Secretary of State on August 5, 2003 (incorporated herein by reference to Exhibit 3.1 of the Company's Quarterly Report on Form 10-Q filed on November 12, 2003)

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<b>Exhibit No.</b>	<b>Identification of Exhibit</b>
3.5	Certificate of Amendment to Certificate of Incorporation, as filed with the Delaware Secretary of State on June 21, 2007 (incorporated herein by reference to Exhibit 3.1 of the Company's Quarterly Report on Form 10-Q filed on August 9, 2007)
4.1	Form of Stock Certificate representing Common Stock, \$0.001 par value, of the Company (incorporated herein by reference to Exhibit 4.1 of the Company's Quarterly Report on Form 10-Q filed August 14, 2000)
10.1@	Interleukin Genetics, Inc. 1996 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.17 of the Company's Registration Statement No. 333-37441 on Form SB-2 filed October 8, 1997)
10.2@	Amendment to the Interleukin Genetics, Inc. 1996 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.18 of the Company's Registration Statement No. 333-37441 on Form SB-2 filed October 8, 1997)
10.3@	Form of Stock Option Agreement (incorporated herein by reference to Exhibit 10.19 of the Company's Registration Statement No. 333-37441 on Form SB-2 filed October 8, 1997)
10.4@	Stock Option Exercise Agreement (incorporated herein by reference to Exhibit 10.20 of the Company's Registration Statement No. 333-37441 on Form SB-2 filed October 8, 1997)
10.5@	Non-Qualified Stock Option Agreement dated June 1, 1999, between the Company and Philip R. Reilly (incorporated herein by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-QSB filed August 16, 1999)
10.6@	Non-Qualified Stock Option Agreement dated November 30, 1999 between the Company and Philip R. Reilly (incorporated herein by reference to Exhibit 4.5 of the Company's Registration Statement No. 333-32538 on Form S-8 filed March 15, 2000)
10.7@	2000 Employee Stock Compensation Plan for the Company (incorporated herein by reference to Exhibit 10.3 of the Company's Quarterly Report on Form 10-Q filed August 14, 2000)
10.8@	Form of Nonqualified Stock Option Grant (incorporated herein by reference to Exhibit 10.4 of the Company's Quarterly Report on Form 10-Q filed August 14, 2000)
10.9@	Form of Incentive Stock Option Grant (incorporated herein by reference to Exhibit 10.5 of the Company's Quarterly Report on Form 10-Q filed August 14, 2000)
10.10	Form of Common Stock Purchase Warrant (incorporated herein by reference to Exhibit 10.3 of the Company's Quarterly Report on Form 10-Q filed on November 7, 2002)
10.11	Registration Rights Agreement dated August 9, 2002 (incorporated herein by reference to Exhibit 10.4 of the Company's Quarterly Report on Form 10-Q filed on November 7, 2002)
10.12	Stock Purchase Agreement between the Company and Pyxis Innovations Inc. dated March 5, 2003 (incorporated herein by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on March 5, 2003)
10.13	Amendment No. 2 to the Security Agreement between the Company and Pyxis Innovations Inc., dated March 5, 2003 (incorporated herein by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K filed on March 5, 2003)

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<b>Exhibit No.</b>	<b>Identification of Exhibit</b>
10.14+	Exclusive License Agreement between the Company and Access Business Group dated March 5, 2003 (incorporated herein by reference to Exhibit 10.7 of the Company's Current Report on Form 8-K filed on March 5, 2003)
10.15	Registration Rights Agreement between the Company and Pyxis Innovations Inc. dated March 5, 2003 (incorporated herein by reference to Exhibit 10.8 of the Company's Current Report on Form 8-K filed on March 5, 2003)
10.16@	Form of Director's Indemnity Agreement dated March 5, 2003 (incorporated herein by reference to Exhibit 10.13 of the Company's Current Report on Form 8-K filed on March 5, 2003)
10.17	Commercial Lease Agreement between the Company and Clematis LLC dated February 13, 2004 (incorporated herein by reference to Exhibit 10.44 of the Company's Annual Report on Form 10-K filed on March 29, 2004)
10.18+	Distribution Agreement with the Company and Access Business Group International LLC, dated February 26, 2004 (incorporated herein by reference to Exhibit 10.45 of the Company's Annual Report on Form 10-K filed on March 29, 2004)
10.19@	Interleukin Genetics, Inc. 2004 Employee, Director and Consultant Stock Plan (incorporated by reference to Exhibit 99.1 of the Company's Registration Statement No. 333-118551 on Form S-8 filed on August 25, 2004)
10.20+	Research Agreement by and between the Company and Access Business Group LLC dated March 29, 2007 (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q filed on May 10, 2007)
10.21	First Amendment to Distribution Agreement with the Company and Access Business Group International LLC, dated February 28, 2005 (incorporated by reference to Exhibit 10.40 of the Company's Annual Report on Form 10-K filed on April 26, 2005)
10.22	Purchase Agreement between the Company and Access Business Group LLC dated February 23, 2006 effective as of January 31, 2006 (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q filed on May 10, 2006)
10.23	Purchase Agreement between the Company and Access Business Group LLC dated February 23, 2006 effective as of March 23, 2006 (incorporated by reference to Exhibit 10.3 of the Company's Quarterly Report on Form 10-Q filed on May 10, 2006)
10.24@	Employment Agreement dated March 31, 2006 between the Company and Kenneth S. Kornman (incorporated by reference to Exhibit 10.6 of the Company's Quarterly Report on Form 10-Q filed on May 10, 2006)
10.25	Second Amendment to Stock Purchase Agreement between the Company and Pyxis Innovations Inc. dated February 28, 2005 (incorporated by reference to Exhibit 10.41 of the Company's Annual Report on Form 10-K filed on April 26, 2005)
10.26	Stock Purchase Agreement Between the Company and Pyxis Innovations Inc. dated August 17, 2006 (incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K/A filed on October 31, 2006)
10.27	Form of Promissory Note (incorporated by reference to Exhibit 10.4 of the Company's Current Report on Form 8-K/A filed on October 31, 2006)
10.28@	Employment agreement dated January 22, 2008 between the Company and Lewis H. Bender (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q filed on May 15, 2008)

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<b>Exhibit No.</b>	<b>Identification of Exhibit</b>
10.29	Research Agreement by and between the Company and Access Business Group International, LLC, dated February 25, 2008 (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q filed on May 15, 2008)
10.30@	Employment agreement dated April 30, 2008 between the Company and Eliot M. Lurier (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q filed on August 13, 2008)
10.31	Promissory Note Dated June 10, 2008, (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10Q filed on August 13, 2008)
10.32+	Non-exclusive License Agreement by and between the Company and Access Business Group International, LLC, dated September 1, 2008 (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q filed on November 13, 2008)
10.33+	First Amendment to License Agreement by and between the Company and Access Business Group International, LLC, dated September 1, 2008 (incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q filed on November 13, 2008)
10.34+	Research and License Agreement by and between the Company and Geisinger Health System dated September 16, 2008 (incorporated by reference to Exhibit 10.3 of the Company's Quarterly Report on Form 10-Q filed on November 13, 2008)
10.35@	Employment agreement dated November 12, 2008 between the Company and Kenneth S. Kornman (incorporated by reference to Exhibit 10.4 of the Company's Quarterly Report on Form 10-Q filed on November 13, 2008)
10.36	Amended and restated Note Purchase Agreement between the Company and Pyxis Innovations Inc. dated March 10, 2009 (incorporated by reference to Exhibit 99.1 of the Company's Current Report on Form 8-K filed on March 13, 2009)
21.1*	Subsidiaries of the Company
23.1*	Consent of Grant Thornton LLP
31.1*	Certification of Chief Executive Officer pursuant to Section 302 of Sarbanes-Oxley Act of 2002
31.2*	Certification of Principal Financial Officer pursuant to Section 302 of Sarbanes-Oxley Act of 2002
32.1*	Certification pursuant to Section 906 of Sarbanes-Oxley Act of 2002

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\* Filed herewith.

+ The Securities and Exchange Commission with respect to certain portions of this exhibit has previously granted confidential treatment. Omitted portions have been filed separately with the Securities and Exchange Commission.

@ Management contract or compensatory plan, contract or arrangement.

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### SIGNATURES

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

INTERLEUKIN GENETICS, INC.

By:                     /s/ LEWIS H. BENDER                    

Lewis H. Bender  
*Chief Executive Officer*

Date: March 25, 2009

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

Signatures	Title	Date Signed
<u>                    /s/ LEWIS H. BENDER                    </u> Lewis H. Bender	Chief Executive Officer, Director (Principal Executive Officer)	March 25, 2009
<u>                    /s/ ELIOT M. LURIER                    </u> Eliot M. Lurier	Chief Financial Officer (Principal Financial and Accounting Officer)	March 25, 2009
<u>                    /s/ KENNETH S. KORNMAN                    </u> Kenneth S. Kornman	President, Chief Scientific Officer and Director	March 25, 2009
<u>                    /s/ JAMES WEAVER                    </u> James Weaver	Chairman of the Board of Directors	March 25, 2009
<u>                    /s/ GLENN S. ARMSTRONG, PH.D.                    </u> Glenn S. Armstrong, Ph.D.	Director	March 25, 2009
<u>                    /s/ GEORGE CALVERT                    </u> George Calvert	Director	March 25, 2009
<u>                    /s/ MARY E. CHOWNING                    </u> Mary E. Chowning	Director	March 25, 2009
<u>                    /s/ THOMAS R. CURRAN JR.                    </u> Thomas R. Curran Jr.	Director	March 25, 2009



