FORM 10-K

Annual report pursuant to section 13 and 15(d)

Filing Date: **2009-03-31** | Period of Report: **2008-12-31**
SEC Accession No. 0001188112-09-000776

(HTML Version on secdatabase.com)

FILER

HEALTH DISCOVERY CORP

CIK:**1141788**| IRS No.: **743002154** | State of Incorp.:**2Q** | Fiscal Year End: **1231**
Type: **10-K** | Act: **34** | File No.: **333-62216** | Film No.: **09718546**
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2008

OR

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

For the transition period from to

Commission File No. 333-62216

HEALTH DISCOVERY CORPORATION

(Name of Registrant as Specified in its charter)

Georgia	**74-3002154**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
2 East Bryan Street, Suite #601, Savannah, GA	**31401**
(Address of principal executive offices)	*(Zip Code)*

(912) 443-1987
(Registrant's telephone number, including area code)

Securities Registered Pursuant to Section 12 (b) of the Exchange Act:
None

Securities Registered Pursuant to Section 12 (g) of the Act:
None

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

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act. Yes ☐ No ☒

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

Indicate by check mark 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 registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

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

Large Accelerated Filer ☐ Accelerated Filer ☐

Non-accelerated Filer ☐ Smaller Reporting Company ☒

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

The aggregate market value of the voting common stock held by non-affiliates as of March 27, 2009 was approximately $10,313,875. There were 169,522,590 shares of common stock outstanding as of March 27, 2009. There were 7,437,184 shares of Series A Preferred Stock outstanding as of March 27, 2009. There were 2,500,000 shares of Series B Preferred Stock outstanding as of March 31, 2009.

PART I

ITEM 1. BUSINESS

Our History

We were organized under the name Direct Wireless Communications, Inc. in April 2001 by Direct Wireless Corporation, which licensed to us its technology for a wireless telephone. In October 2001, Direct Wireless Corporation, then our sole stockholder, pursuant to an effective registration statement under the Securities Act of 1933, distributed its entire holdings of our common stock as a stock dividend to its stockholders. As a result of the dividend, Direct Wireless Corporation ceased to own any of our equity securities. The negative events that occurred over the next several years in the communications industry made it difficult for us to fund the advancement of our communication platform. As a result, we made the decision to strategically change the overall direction of our intended business activities.

On August 26, 2003, we acquired all of the assets of The Barnhill Group, LLC, which was owned by Stephen D. Barnhill, M.D. Dr. Barnhill is a physician trained in laboratory medicine and clinical pathology. He developed artificial intelligence and pattern recognition computational techniques used in medicine, genomics, proteomics, diagnostics and drug discovery. Following the acquisition, Dr. Barnhill became our Chief Executive Officer and Chairman of our Board of Directors. Also, immediately following our acquisition of the assets of The Barnhill Group, LLC and the change in strategic direction of the Company, our licensing rights to the telecommunications technology previously granted by Direct Wireless Corporation were terminated and all payments due to Direct Wireless Corporation were terminated.

Subsequently, we amended our charter to change our name to Health Discovery Corporation ("HDC" or the "Company"). Direct Wireless Communications (DWCM) officially became Health Discovery Corporation on November 6, 2003, at which time the new trading symbol (HDVY) became effective.

On September 30, 2003, we acquired the assets of Fractal Genomics, LLC, a company with patented Fractal Genomics Modeling ("FGM") software, through the issuance of 3,825,000 common shares of the Company. In addition to the shares of common stock of the Company issued for the acquisition of Fractal Genomics, LLC's assets, the Company agreed to execute a note for $500,000 payable in $62,500 quarterly installments to the sellers beginning on January 1, 2004 with the final payment being made in October 2005. Our acquisition of Fractal Genomics' assets was completed on December 30, 2003.

On July 30, 2004, we began purchasing rights to a portfolio of 71 patents and pending patent applications, including patents on the use of Support Vector Machines, or SVMs, and other machine learning tools useful for diagnostic and drug discovery (the "SVM Portfolio"). On May 6, 2005, we acquired the remaining interest in the SVM Portfolio from a group of unrelated third parties.

Effective September 26, 2004, we were assigned a patent license agreement with Lucent Technologies GRL Corporation ("Lucent"). The patent license agreement was associated with the patents acquired July 30, 2004. We agreed to pay minimum royalty fees to Lucent, which increases as a percentage of revenue based on each licensed product that is sold, leased, or put into use by the Company. The license granted will continue for the entire unexpired term of Lucent's patents.

On July 12, 2007, we completed our reincorporation in Georgia by effecting a conversion in our legal domicile from Texas to Georgia. Our business, assets, liabilities, net worth and headquarters were unchanged as a result of the conversion, and our directors and officers prior to the conversion continued to serve after the conversion. In connection with the conversion, the Company's shares were converted on a one-for-one basis.

The conversion was approved by the shareholders holding at least two-thirds of the outstanding common shares of the Company at the reconvened special meeting of the shareholders held on June 13, 2007. Articles of Conversion were filed with the Secretaries of State of Texas and Georgia on July 12, 2007 to effect the reincorporation.

In connection with the conversion, we filed Articles of Incorporation in the State of Georgia, which increased the number of authorized shares of common stock, no par value, from two hundred million (200,000,000) shares to three hundred million (300,000,000) shares and authorized thirty million (30,000,000) shares of preferred stock, no par value, with the rights and preferences to be determined by the Company's Board of Directors prior to issuance. We also amended and restated our Bylaws. The Articles of Incorporation and Bylaws were submitted to the shareholders and were approved on June 13, 2007.

On October 9, 2007, we filed Articles of Amendment (the "Amendment") with the Secretary of State of the State of Georgia to amend our Articles of Incorporation. The Amendment sets forth the rights and preferences of the Series A Preferred Stock, including the right to receive dividends, the right to vote on matters presented to holders of common stock, a preference right in the event of liquidation, and the right to convert the Series A Preferred Stock into Common Stock. The Amendment was authorized by the Board of Directors on October 5, 2007.

On March 30, 2009, we filed Articles of Amendment (the "Second Amendment") with the Secretary of State of the State of Georgia to amend our Articles of Incorporation. The Second Amendment sets forth the rights and preferences of the Series B Preferred Stock, including the right to receive dividends, including special dividends, the right to vote on matters presented to holders of common stock, a preference right in the event of liquidation, and the right to convert the Series B Preferred Stock into Common Stock. The Second Amendment was authorized by the Board of Directors on March 20, 2009. A copy of the Second Amendment is attached to this Annual Report on Form 10-K as Exhibit 3.1(b).

On March 4, 2008, we formed two wholly owned subsidiaries, SVM Technology Inc., a Georgia corporation, and SVM Technology Inc., a Delaware corporation. We anticipate that we will use each of these subsidiaries to expand our business model by applying SVM technology outside of scientific discovery in the healthcare arena.

Our Company Overview

HDC is a pattern recognition company that uses advanced mathematical techniques to analyze large amounts of data to uncover patterns that might otherwise be undetectable. The Company operates primarily in the emerging field of molecular diagnostics where such tools are critical to scientific discovery. The terms *artificial intelligence* and *machine learning* are sometimes used to describe pattern recognition tools.

HDC's mission is to use its patents, intellectual prowess, and clinical partnerships principally to identify patterns that can advance the science of medicine, as well as to advance the effective use of our technology in other diverse business disciplines, including the high-tech, financial, and homeland security markets.

Our historical foundation lies in the molecular diagnostics field where we have made a number of important discoveries that may play a critical role in developing more personalized approaches to the diagnosis and treatment of certain diseases. However, our SVM assets in particular have broad applicability in many other fields. Intelligently applied, HDC's pattern recognition technology can be a portal between enormous amounts of otherwise undecipherable data and truly meaningful discovery.

Our Company's principal asset is its intellectual property which includes advanced mathematical algorithms called *Support Vector Machines* (SVM) and *Fractal Genomic Modeling* (FGM), as well as *biomarkers* that we discovered by applying our SVM and FGM techniques to complex genetic and proteomic data. Biomarkers are biological indicators or genetic expression signatures of certain disease states. Our intellectual property is protected by more than 69 patents that have been issued or are currently pending around the world.

Our business model has evolved over time to respond to business trends that intersect with our technological expertise and our capacity to professionally manage these opportunities. In the beginning, we sought only to use our SVMs internally in order to discover and license our biomarker signatures to various diagnostic and pharmaceutical companies. Today, our commercialization efforts include: utilization of our discoveries and knowledge to help develop biomarkers for use as companion diagnostics, surrogate biomarkers, and diagnostic and prognostic predictive tests; licensure of the SVM and FGM technologies directly to diagnostic and pharmaceutical companies; and, the formation of new ventures with domain experts in other fields where our pattern recognition technology holds commercial promise.

Our Principal Market

The principal healthcare market for our pattern recognition technology and biomarker discoveries is medical diagnostics, particularly the rapidly growing field of molecular diagnostics. The market consists of two basic types of diagnostic procedures: *in vitro* tests performed on a patient's fluid or tissue samples and *in vivo* tests performed directly on the body, including blood pressure monitoring and imaging analysis such as x-rays. *In vitro diagnostics* (IVD) can be further divided into several major segments including clinical chemistry, immunochemistry, hematology/ cytometry, microbiology, and molecular diagnostics.

The IVD portion of the diagnostics market currently accounts for over $31 billion in sales worldwide. Today, the molecular diagnostics segment represents a fraction of the IVD revenues with about $2.5 billion in sales, but it is widely considered to be the fastest growing segment, estimated at a 20-25% compounded annual growth rate, mainly in the U.S. and EU markets, versus 6-7% for IVD as a whole. It is difficult to accurately assess the size of this segment since many countries do not have reference laboratories external to hospitals. Areas of particular growth include infectious diseases, oncology, genetic diseases, and pharmacogenetic analyses. Companies involved in this space include several major pharmaceutical and diversified corporations. Roche, Abbott, and Johnson & Johnson have diagnostics divisions that generated $8.6 billion, $2.8 billion, and $23.1 billion in revenue in 2008, respectively, while Siemens and General Electric operate medical imaging segments that are expanding in diagnostics. Other market players include large technology companies like Becton-Dickinson, Beckman Coulter, and Bio-Rad.

IVDs have been established as effective tools for all aspects of disease management, especially in areas of unmet clinical need. Such tests have been developed for screening and prognosis as well as for applications, such as determination of genetic predisposition to disease, detection of presymptomatic disease, and prediction of individual drug response.

Molecular Diagnostics

Within the overall IVD market, the molecular diagnostics segment is expected to expand dramatically, largely attributable to advances in genomics and proteomics. Primary market drivers include the addition of new diagnostic tests in high volume testing areas coupled with the introduction of new instrumentation that provide greater ease, speed, and quality in test performance. Given its annualized growth rate, the potential for molecular diagnostics is particularly impressive in the U.S. which represents the largest commercial market with the most favorable conditions for entry and marketing.

Borrowing from the two disciplines of genomics and proteomics, molecular diagnostics categorizes cancer and other diseases using technology such as mass spectrometry and gene chips. Genomics is the study of all the genes in a cell or organism, and proteomics is the study of all the proteins. Molecular diagnostics determines how these genes and proteins interact in patients by focusing on patterns – gene and protein patterns – in different types of healthy and diseased patient cells. Molecular diagnostics uncover these genomic and proteomic changes and capture this information as expression patterns. Also called *molecular signatures*, these expression patterns improve clinicians' ability to diagnose cancer earlier, predict which patients will respond to certain treatments, predict cancer recurrence risk, and select appropriate treatment for individual patients.

Molecular diagnostics can facilitate early, accurate screening and prediction of diseases in their asymptomatic stages, years before symptoms manifest or diseases actually begin. This allows intervention to begin earlier, perhaps preventing the disease entirely. Early intervention will allow the healthcare system to encompass both preventative and reactive medicine, improving overall healthcare efficiency and possibly reducing systemic healthcare expenditures.

The molecular diagnostics industry is an increasingly powerful health care participant with tremendous potential. It is characterized by a very diverse, constantly changing technology base that continuously produces new opportunities and applications. Advances in polymerase chain reaction ("PCR"), multiplexing, sequencing and other technologies are propelling both new and old companies forward with novel capabilities. Similarly, a growing understanding of the molecular basis of cancer and other chronic diseases has awakened new realms of medicine to the possibilities of molecular diagnostic testing.

Clinicians have discovered that molecular diagnostics have many uses beyond just the creation of new screening and diagnostic tools. Expression patterns can also provide information for the design of new cancer treatments, monitor the treatment's effectiveness as it is studied in a clinical trial, and even predict the patient's response to a new treatment. In addition to its importance in addressing the many kinds of cancer, molecular diagnostics will likely become an important technology for detecting resistance to antibiotics, a major hazard in the hospital setting. In the future, molecular tests should be able to determine within two to three hours not only the nature of an infection, but also therapeutic selection and any potential resistance.

The molecular diagnostics market is a rapidly growing and rapidly changing market with explosive potential, multiple opportunities for entry and growth, and intensifying competition. New tests and new instruments to perform automated analysis continue to expand the capabilities of companies in this segment. The identification and validation of novel genes, gene products, and biomarkers makes it possible to develop and introduce even more tests. The market includes sales of reagents, instruments, and kits to clinical laboratories and research reagents that can be used by labs to develop their own in-house procedures. It also includes testing services by those clinical labs that have developed their own products, plus diagnostics companies that operate their own branded, certified testing services.

Molecular diagnostic tests typically analyze DNA, RNA, or protein biomarkers (analytes) to identify a disease, determine its course, evaluate response to therapy, or predict individual predisposition to a disease. The techniques applied involve analysis of DNA sequences, DNA methylation patterns, gene expression profiles, proteins, protein expression, or combinations of these biomarkers. Such biomarkers provide direct information about genotypic and/or phenotypic changes associated with specific diseases or responses to treatment. Biomarker analysis has also become an important tool in drug discovery, preclinical drug development, and patient monitoring during clinical trials.

Most molecular diagnostics currently on the market are primarily single-analyte tests involving the detection of a single gene or protein. However, many disease-related processes are multifactorial, involving the abnormal expression of multiple genes or proteins. Second-generation molecular diagnostics are anticipated to utilize novel detection technologies and multiplexing platforms to allow the measurement of a large number of analytes simultaneously. These innovations will increasingly utilize multiplexing platforms such as DNA microarrays that perform parallel biomarker analysis.

The market has been driven by transition to fully automated systems, real time amplification, and growing development of point-of-care platforms. Industry experts estimate that future growth will stem from emerging applications like genotyping for identifying drug resistant strains; bioterrorism testing applications within infectious disease; disease diagnostics and prognostic assays for disease applications like sepsis and nosocomial infections, such as MRSA, cancer, cardiovascular disease, and Alzheimer's disease; diagnosis of inherited disorders; and theranostics companion diagnostics.

Genomic testing to determine diagnosis, therapeutic selection and response, and preventative measures is an important segment of the overall IVD market. Although this segment is small today, it is an extremely fast-growing component. Today, genomic testing is responsible for driving growth of the overall market, currently constituting approximately 7%–8% of the clinical testing service market. In the service segment, genomic testing is growing by about 60%–75% per year.

Other market segments include traditional genomics, personalized medicine, and cancer with 13%, 9%, and 8% of the U.S. clinical lab services market, respectively. Experts predict that the cancer segment is growing at 20% a year, traditional genomics about 15% a year, and personalized medicine about 20% a year, compared to the 5-10% growth rate for infectious diseases.

From a demographic standpoint, 12% of the U.S. population was 65 years old or older in 2000. By 2030, that segment is anticipated to grow to 20% of the population, burdening the healthcare system with increased numbers of cardiovascular, neurological, and other age-related diseases. Age-related conditions are expected to contribute to the health care market that will require greater product development and marketing of assays, including molecular tests.

Diagnostics addressing the pharmacogenetic testing segment (i.e. companion diagnostics and surrogate biomarkers) are expected to drive market growth in the years ahead. Pharmacogenetics broadly relates to the study of genetic variations and their application to drug discovery to provide personalized therapy. Currently the second largest market sector behind diagnostics for infectious diseases, the pharmacogenetic sector of the molecular diagnostics market is projected to grow rapidly.

The Role of HDC's Technology in Molecular Diagnostics

Our SVM technology offers pharmaceutical companies a key tool as they approach drug discovery in this new era of personalized medicine. Accordingly, our marketing efforts are focused on utilizing our technology in partnership with many of the world's leading pharmaceutical and life-sciences companies. Our primary commercialization pathway for our technology and discoveries is to enter into both licensing agreements and joint development opportunities that feature up-front license fees, fee-for-service development revenue, milestone payments, and royalty streams. We believe the pharmaceutical segment offers us an excellent commercial opportunity for the application of our technology, as the pharmaceutical industry is characterized by costly R&D efforts to create new patent-protected products, fierce competition for products that are not so well protected, and ongoing consolidation as major companies acquire smaller players to add new products to existing pipelines.

The use of HDC's SVM technology and our discovered biomarkers may help pharmaceutical companies develop and evaluate new drugs and medical therapies in less time and at lower cost. According to the lobby group PhRMA, only 1 of every 10,000 potential medicines investigated by America's drug companies survives the research and development process and is approved for patient use by the U.S. Food and Drug Administration (FDA). On average, the drug developmental process can take up to 15 years in research and development, with costs approaching many hundreds of millions of dollars. This extended timeframe and enormous expense has led to an emphasis on the development of "blockbuster" drugs.

Within the drug discovery R&D process, biomarkers like ours can help pharmaceutical companies identify disease targets and pathways and validate mechanisms of drug action. They may also serve as pharmacodynamic indicators of drug activity, drug response, and drug toxicity in clinical development. Biomarkers may also be used to help avoid new drug failures in late stage trials, earlier detection of disease, and improved prognosis of therapeutic outcome.

We consistently work to influence the evolving relationship between diagnostics and monitoring patients for therapeutic outcome. With its February 2007 approval of *MammoPrint*, Agendia's multi-gene expression breast cancer prognosis test, the FDA signaled its acceptance of the field of molecular diagnostics and highlighted the growing importance of personalized medicine. In particular, the advent of molecular diagnostics has led to the promise of a completely new paradigm in the care of patients suffering from cancer and other diseases.

Using companion diagnostics in patient care can substantially improve patient outcomes and pave the way for more personalized, targeted medicine by reducing both misdiagnoses and adverse reactions, and by eliminating unnecessary and expensive downstream tests. Today, patient dosage levels are based on age, sex, and weight, as determined by empirical studies. However, specific drug metabolism may be as individualized as one's fingerprint. In the future, molecular diagnostics may be able to direct physicians to the right drugs for every patient, no matter what the illness.

This trend towards personalized medicine may ultimately lead to the reduction of overall healthcare expenditures. What is known as a *surrogate molecular marker* may now be substituted for the lengthy process of comparing the effects of a prospective new drug versus a placebo on the ultimate outcome of a disease. As a result, a drug's effectiveness against the disease process in question may be monitored more efficiently by evaluating the presence or absence of a specific biomarker, thereby avoiding failures late in the research and development process as well as the threat of recalls. One example of the successful application of biomarker data to therapeutic evaluation is the use of blood cholesterol levels to evaluate the effectiveness of cholesterol lowering drugs. *This approach has the potential for creating a revolutionary new paradigm in the conduct of clinical trials worldwide.*

Current diagnostic tools, such as blood marker-based immunoassays, imaging techniques, and biopsy analyses, provide valuable information and have played an important role in increasing survival rates of cancer patients. However, these tools have inherent limitations in accuracy and remain quite expensive. There is a significant need for advanced diagnostic and prognostic tests that can provide meaningful information, screen for cancer, detect early recurrence, and monitor progression and therapeutic response in real time. HDC's pattern recognition technology can play a critical role in the development of these tests because an advanced pattern recognition technique *is required* for this type of discovery. SVM technology is recognized as a superior pattern recognition tool available today as evidenced in hundreds of scientific papers worldwide.

Working with recognized diagnostic and pharmaceutical partners, our goal is to develop a product line of newly discovered biomarker signatures and pathways that can be found in human genes and genetic variations, as well as gene, protein and metabolite expression differences. In addition, we market our expertise in the design of clinical trials for companion diagnostics to substantiate the clinical validity and commercial utility of those biomarkers. We also market the potent combination of our intellectual property and intellectual prowess to our prospective collaborative partners. As inventors of the SVM technology, our world renowned mathematicians offer these companies the strongest possible development team for their drug discovery, diagnostic test, or other applications.

Our Technologies and Discoveries

HDC owns a patent portfolio of machine learning technology, including certain pioneer patents on SVM. We also have consulting arrangements with many of the physicians, clinical specialists and mathematicians responsible for developing and filing the pioneer neural network and SVM patents for the analysis of clinical data.

The Company's SVM technology is commonly considered within the context of *artificial intelligence*. This is a branch of computer science concerned with giving computers the ability to perform functions normally associated with human intelligence, such as reasoning and optimization through experience. Machine learning is a type of artificial intelligence that enables the development of algorithms and techniques that allow computers to learn. Pattern recognition is machine learning with a wide spectrum of applications including medical diagnosis, bioinformatics, classifying DNA sequences, detecting credit card fraud, stock market analysis, object recognition in computer vision, and robot locomotion.

SVM Overview

SVMs are mathematical algorithms that allow computers to sift through large, complex datasets to identify patterns. SVMs are widely acknowledged for their ability to discover hidden relationships in these complex datasets. With the ability to handle what is known as *infinite dimensional space*, SVMs are broadly considered to be superior to neural networks and other mathematical techniques. SVM is a core machine learning technology with strong theoretical foundations and excellent empirical successes.

Since their introduction in 1992, SVMs marked the beginning of a new era in the *learning from examples* paradigm in artificial intelligence. Rooted in the Statistical Learning Theory developed by Professor Vladimir Vapnik, a member of HDC's Scientific Advisory Board, SVMs quickly gained attention from the math and science communities due to a number of theoretical and computational merits. This development advanced a new framework for modeling learning algorithms. Within this framework, the fields of machine learning and statistics were merged introducing powerful algorithms designed to handle the difficulties of prior computational techniques.

The new generation of learning algorithms that were developed based on this theory has proved to be remarkably resistant to the problems imposed by noisy data and high dimensionality. They are computationally efficient, have an inherent modular design that simplifies their implementation and analysis and allows the insertion of domain knowledge, and, more importantly, they have theoretical guarantees about their generalization ability. SVMs have been validated in hundreds of independent academic publications and presentations. In recognition for his work, Professor Vapnik received the prestigious Alexander von Humboldt Prize from the German government honoring foreign scientists and scholars for lifetime achievement.

SVMs have become widely established as one of the leading approaches to pattern recognition and machine learning worldwide and are replacing neural networks in a variety of fields, including engineering, information retrieval and bioinformatics. This technology has been incorporated into product and research applications by many biomedical, pharmaceutical, software, computer and financial companies. Educational and research institutions throughout the world have successfully applied SVMs to a wide array of applications, including gene and protein expression analysis, medical image analysis, flow cytometry, and mass spectrometry.

Recursive Feature Elimination - Support Vector Machine Overview

Recursive Feature Elimination (RFE-SVM) is an application of SVM that was created by members of HDC's science team to find discriminate relationships within clinical datasets, as well as within gene expression and proteomic datasets created from micro-arrays of tumor versus normal tissues. In general, SVMs identify patterns – for instance, a biomarker/genetic expression signature of a disease. The RFE-SVM utilizes this pattern recognition capability to identify and rank order the data points that contribute most to the desired results. The Company believes that its four RFE-SVM patents are currently the only RFE patents issued in the world.

Using RFE-SVM, we have been able to access information in micro-array datasets that the most advanced bioinformatics techniques missed. In one micro-array experiment, RFE-SVMs were able to filter irrelevant tissue-specific genes from those related to the malignancy. RFE-SVM has also been used to determine gene expression patterns that correlate to the severity of a disease, not just its existence. It has been shown to improve both diagnosis and prognosis by providing physicians with an enhanced decision tool. HDC scientists believe that these analytic methods are effective for finding genes and proteins implicated in several cancers, as well as in assisting with the pharmacogenetic and toxicological profiling of patients. The RFE-SVM method is also capable of finding those specific genes and proteins that are unhindered by ever-increasing patent protection.

Fractal Genomic Modeling Overview

On September 30, 2003, we acquired the assets of Fractal Genomics, LLC, a company with patented FGM software. The fractal technology is used to find discriminate relationships within clinical datasets as well as within gene expression datasets created from micro-arrays of disease versus normal tissues.

The Fractal Genomic Modeling ("FGM") data analysis technique has been shown to improve the mapping of genetic pathways involved in the diagnosis and prevention of certain diseases. HDC scientists feel that these analytic methods are effective for finding genes implicated in several cancers, HIV infection, lymphedema, Down's syndrome, and a host of other diseases, as well as the pharmacogenetic profiling of patients.

FGM technology is designed to study complex networks. A complex network can be made up of genes inside a living organism, web pages on the Internet, stocks within a financial market, or any group of objects or processes that appear to be connected together in some intricate way. FGM uses a new approach toward modeling network behavior to rapidly generate diagrams and software simulations that facilitate prediction and analysis of whatever process is your particular object of study. Two important concepts behind FGM technology are the notions of scale-free networks and self-similarity.

Our Scientific Achievements

HDC's world renowned scientific team is uniquely experienced in the design, analysis and application of machine learning technology, having invented the concepts and many of the methodologies used to exploit domain knowledge. In addition, through pattern recognition, our science team has identified and patent-protected biomarkers as possible treatment advances for several diseases, including Benign Prostatic Hyperplasia (BPH), prostate cancer, leukemia, colon cancer, AIDS and breast cancer.

Benign Prostatic Hyperplasia (BPH)

HDC has identified and patent-protected a subset of genes that separates benign prostatic hyperplasia (BPH) from prostate cancer with a high degree of accuracy. This same set of genes also separated BPH from normal tissue patterns, indicating that BPH is a disease with molecular characteristics of its own. This discovery could be used to develop a new non-invasive diagnostic test for BPH, which does not currently exist, as well as a completely new type of therapy for patients with this disease. This patent-protected gene set is the subject of discussions with an international pharmaceutical company to be used as a surrogate biomarker for their clinical trial evaluating a new BPH drug.

BPH is a non-cancerous enlargement of the prostate gland that occurs as men age. The enlargement often leads to obstruction in the flow of urine through the urethra that passes through the prostate gland. BPH is a common condition, representing a global treatment market of almost $4 billion annually growing by 12% per year in fixed-rate US dollar terms. According to the National Institutes of Health (NIH), BPH affects more than 50% of men over age 60 and as many as 90% of men over the age of 70. While BPH does not cause prostate cancer, both may be found together.

Prostate Cancer

HDC has identified, patent-protected and recently licensed a genetic biomarker signature that identifies clinically significant high grade prostate cancer cells based on analysis of tissue samples. More than one million men a year undergo biopsies of the prostate gland after a cancer-screening test reveals moderately elevated levels of prostate specific antigen (PSA) in the blood. Upon the achievement of successful validation, the Company's test will be used to analyze patients with elevated PSA or abnormal rectal exams, with negative biopsy results to determine if there is genomic evidence of grade three or higher cancer cells present in biopsy tissue, indicating the presence of a cancer missed by the biopsy. We and Clarient, Inc. have successfully completed all phases of the clinical trial process with the hope of achieving the statistical significance necessary to validate the ability to commercialize a test. Results from both the Phase I, Phase II and Phase III double-blinded clinical validation studies now completed at Clarient demonstrated a very high success rate for identifying the presence of Grade 3 or higher prostate cancer cells (clinically significant cancer), as well as normal BPH (benign prostatic hyperplasia) cells. With the completion of the clinical trial, HDC's new gene-based molecular diagnostic test is now being commercialized to be used by physicians on their patients at risk of having prostate cancer.

Prostate cancer is the second-leading cause of cancer death in men, after lung cancer. The National Cancer Institute (NCI) estimates that more than 186,000 new cases of prostate cancer will be diagnosed in the U.S. in 2008, with more than 28,660 deaths.

Leukemia

HDC has identified and patent-protected a set of leukemia genes that can separate ALL-T-cell leukemia from ALL-B-cell leukemia with a high degree of accuracy. The Company collaborated with a prominent cancer research hospital to analyze a gene expression database to identify new biomarkers and pathways involved in leukemia. The Company intends to further validate this finding in anticipation of developing a molecular diagnostic product for commercialization.

Leukemia is a type of cancer that originates in the bone marrow. The accumulation of malignant cells interferes with the body's production of healthy blood cells and makes the body unable to protect itself against infections. The National Cancer Institute (NCI) estimates that more than 44,000 new cases will be diagnosed in the U.S. in 2008, with almost 22,000 deaths.

Colon Cancer

HDC has identified and patent-protected colon cancer-specific biomarkers that can be used in the development of diagnostic assays for cancer detection, disease discrimination, and even a potential vaccine. The aim of this early biomarker discovery project was to define the gene expression patterns associated with colon cancer. Our RFE-SVM served as an effective tool for sifting through the noise of thousands of measurements to highlight only those genes that optimally contributed to the study focus. The Company is currently validating these findings in anticipation of developing a molecular diagnostic product for commercialization.

In the United States, colorectal cancer is the third most common cancer in men and women. The National Cancer Institute (NCI) estimates that more than 108,000 new cases of colon and rectal cancer will be diagnosed in the U.S. in 2008, with nearly 50,000 deaths.

AIDS

HDC identified and patent-protected an AIDS expression signature that separated AIDS brain cells from non-AIDS brain cells with a high degree of accuracy.

This biomarker discovery was accomplished in conjunction with Dr. Paul Shapshak, Director of the Dementia/HIV Laboratory at the University of Miami Medical School, and a group of leading scientists using HDC's proprietary FGM analysis technique. HDC sold the biomarker discovery to the University of Miami in November 2005.

Breast Cancer

HDC licensed its two breast cancer diagnostic technologies (*MammoSIGHT,* for detecting malignancy in mammograms and *MetastaSIGHT,* for identifying circulating tumor cells in the blood) to Smart Personalized Medicine, LLC in exchange for a 15% ownership position in Smart Personalized Medicine, LLC and a per test royalty up to 7.5% based on net proceeds received from the sale of the new breast cancer prognostic test. The detection component of these technologies finds the areas of particular interest in the image and separates these objects from the background. The feature extraction component formulates numerical values relevant to the classification task from the segmented objects. HDC's patented technology can be used within all diagnostic imaging radiology techniques, including PET scans, CT scans, and MRIs.

For women, breast cancer is the most common non-skin cancer and the second leading cause of cancer-related death in the United States. However, death rates from breast cancer have been declining since 1990, and these decreases are believed to be the result, in part, of earlier detection and improved treatment. Mammography remains the best method of early breast cancer detection. According to studies cited by the National Cancer Institute, 10-20% of breast cancers detected by a physical exam were missed by a film mammogram. For this reason, there have been extensive research efforts to improve mammography.

The FDA reports that there are about 33.5 million mammography procedures performed each year in the United States. Data from 2000-2002 show that about 70 percent of all mammograms that are performed annually are for screening purposes (to detect cancer as opposed to following cancer once it has been diagnosed). This translates to about 23.5 million screening procedures every year.

Studies have shown that among newly diagnosed breast cancer cases in which the patients have previous mammograms, 75% of the cases will have abnormality detectable in the old films. In fact, missed cancer reading in mammography is a major source of lawsuits in radiology. Detecting malignancy in mammograms can be very difficult. Individual mammograms are unique and there can be great variation within "normal" images. Unlike CT and MRI, mammograms are not cross-sectional images. Basically, a mammogram produces a two-dimensional picture of a three-dimensional object. The projection from 3D to 2D and the resulting overlaps on the images may interfere with the recognition of the distinguishing features. The features are often very subtle. The rules for differentiating the benign and malignant cases are vague and not easily formulated.

One way to reduce reading errors is to have two radiologists read the same mammograms independently. However, in most health care systems, it is not feasible to implement such a two-radiologist reading process. A computer-assisted detection (CAD) system serving as a second reader is therefore an attractive option and CAD is currently reimbursed by both insurance companies and Medicare.

Both digital and film mammography use X-rays to produce an image of the breast. In film mammography, which has been used for over thirty-five years, the image is created directly on a film. While standard film mammography is very good, it is less sensitive for women who have dense breasts. A major limitation of film mammography is the film itself. Once a film mammogram is obtained, it cannot be significantly altered; if the film is underexposed, for example, contrast is lost and cannot be regained.

Digital mammography takes an electronic image of the breast and stores it directly in a computer. Digital mammography uses less radiation than film mammography and allows for improvement in image storage and transmission because images can be stored and sent electronically. Radiologists can use software to help interpret digital mammograms.

MammoSIGHT

HDC's *MammoSIGHT* technology introduces the use of SVMs in detecting malignancy in mammograms. The SVM classifier produces an index discriminating between the benign and malignant cases. The individual components can be developed in parallel because of the modular structure. In developing the calcification segmentation component, a selected set of malignant, benign and normal cases representing a wide range of images was used to guide and test the design in order to produce a general, robust and accurate algorithm. At the same time, the SVM classifier was developed and tested with manually prepared input data. A set of 300 images (150 benign and 150 malignant cases) was used in training the SVM. An independent set of 328 images was used for testing. High dimensional input features were used to ensure a sufficient capacity for automatically extracted features.

Clusters of micro calcifications are characterized by their relatively small sizes and high densities. The algorithm combines a recursive peak seeking technique with morphological operations to achieve a highly accurate calcification detection and segmentation.

MetastaSIGHT

Cancer cells have the ability to migrate from the organ of its origin to any distant organ throughout the body. This is known as metastasis, the hallmark of malignant cancers. During metastasis, cancerous cells break through barriers to travel through the body's circulatory system to invade other organs. These cells form new cells in vital organs throughout the body, becoming secondary tumors that destroy normal cells by depriving them of nutrition.

Even with today's best treatment when the cancer is forced into remission, metastasis will not necessarily leave the body. Metastasis cannot be eliminated by surgery. Often, malignant cells circulate in the blood before detection by clinical examination. *MetastaSIGHT* uses an SVM-based approach to introduce new cellular imaging technology that identifies circulating tumor cells in the blood.

Employees

On December 31, 2008, we had 3 full time employees.

Website Address

Our corporate website address is www.HealthDiscoveryCorp.com. To view our public filings from the home page, select the "Display SEC Filings" tab followed by "SEC Filings." This is a direct link to our filings with the Securities and Exchange Commission ("SEC"), including but not limited to our Annual Report of Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and any amendments to these reports. These reports are accessible soon after we file them with the SEC.

Governmental Regulation

Our business plan involves *Biomarker Discovery* in the field of molecular diagnostics. This early discovery process does not involve any governmental regulations or approvals. If we are successful in licensing our discoveries to other companies, FDA approvals may be required before the ultimate product may be sold to consumers. Companies licensing our discoveries or technologies will be responsible for all costs involved in such approvals. If we are not successful in licensing these discoveries and choose to take these discoveries to market ourselves, we may then be subject to applicable FDA regulations and would then bear the costs of such approvals.

We know of no governmental regulations that will affect the Company's current operations or products.

Intellectual Property

In connection with the SVM Acquisition, we obtained rights to the intellectual property within the "SVM portfolio" that currently consists of thirty-three patents which were or have since issued as well as thirty-four other patent applications that are pending in the U.S. and elsewhere in the world. The issued patents and pending applications in the SVM portfolio to date, including new applications that we have filed since acquiring the original IP, HDC are:

Patent/Application No.	Title	Expiration Date
U.S. Patent No. 6,128,608	Enhancing Knowledge Discovery Using Multiple Support Vector Machines	05/01/2019
U.S. Patent No. 6,157,921	Enhancing Knowledge Discovery Using Support Vector Machines in a Distributed Network Environment	05/01/2019
U.S. Patent No. 6,427,141	Enhancing Knowledge Discovery Using Multiple Support Vector Machines.	05/01/2019
U.S. Patent No. 6,658,395	Enhancing Knowledge Discovery from Multiple Data Sets Using Multiple Support Vector Machines.	05/01/2019
U.S. Patent No. 6,714,925	System for Identifying Patterns in Biological Data Using a Distributed Network.	05/01/2019
U.S. Patent No. 6,760,715	Enhancing Biological Knowledge Discovery Using Multiple Support Vector Machines.	05/01/2019
U.S. Patent No. 6,789,069	Method of Identifying Patterns in Biological Systems and Method of Uses.	05/01/2019
U.S. Patent No. 6,882,990	Method of Identifying Biological Patterns Using Multiple Data Sets.	05/01/2019
U.S. Patent No. 6,944,602	Spectral Kernels for Learning Machines	02/19/2023
U.S. Patent No. 6,996,542	Computer-Aided Image Analysis	04/21/2021
U.S. Patent No. 7,117,188	Methods of Identifying Patterns in Biological Systems and Uses Thereof	05/01/2019
U.S. Patent No. 7,299,213	Method of Using Kernel Alignment to Extract Significant Features from a Large Dataset	03/01/2022
U.S. Patent No. 7,318,051	Methods for Feature Selection in a Learning Machine	02/25/2021
U.S. Patent No. 7,353,215	Kernels and Methods for Selecting Kernels for Use in a Learning Machine	05/07/2022
U.S. Patent No. 7,383,237	Computer-Aided Image Analysis	11/04/2019
U.S. Patent No. 7,444,308	Data Mining Platform for Bioinformatics	08/07/2020
U.S. Patent No. 7,475,048	Pre-Processed Feature Ranking for a Support Vector Machine	08/07/2020
Australian Patent No. 764897	Pre-processing and Post-processing for Enhancing Knowledge Discovery Using Support Vector Machines.	05/01/2019
Indian Patent No. 212978	Pre-Processing and Post-Processing for Enhancing Knowledge Discovery Using Support Vector Machines	05/01/2019

Patent/Application No.	Title	Expiration Date
South African Patent No. 00/7122	Pre-processing and Post-processing for Enhancing Knowledge Discovery Using Support Vector Machines.	05/01/2019
Australian Patent No. 780050	Enhancing Knowledge Discovery from Multiple Data Sets Using Multiple Support Vector Machines.	05/24/2020
Chinese Patent No. ZL00808062.3	Enhancing Knowledge Discovery from Multiple Data Sets Using Multiple Support Vector Machines.	05/24/2020
European Patent No. 1192595	Enhancing Knowledge Discovery from Multiple Data Sets Using Multiple Support Vector Machines.	05/24/2020
German Patent No. DE60024452.0-08	Enhancing Knowledge Discovery from Multiple Data Sets Using Multiple Support Vector Machines.	05/24/2020
Indian Patent No. 223409	Enhancing Knowledge Discovery for Multiple Data Sets Using Multiple Support Vector Machines	05/24/2020
Israeli Patent No. 146705	Enhancing Knowledge Discovery from Multiple Data Sets Using Multiple Support Vector Machines	05/24/2020
Norwegian Patent No. 319,838	Enhancing Knowledge Discovery from Multiple Data Sets Using Multiple Support Vector Machines.	05/24/2020
South Korean Patent No. 724104	Enhancing Knowledge Discovery from Data Sets Using Multiple Support Vector Machines	05/24/2020
Australian Patent No. 779635	Method of Identifying Patterns in Biological Systems and Method of Uses.	10/27/2020
Australian Patent No. 2002243783	Computer Aided Image Analysis	01/23/2022
Japanese Patent No. 3947109	Computer Aided Image Analysis	01/23/2022
Australian Patent No. 2002253879	Methods of Identifying Patterns in Biological Systems and Uses Thereof	01/24/2022
Japanese Patent No. 4138486	Methods of Identifying Patterns in Biological Systems and Uses Thereof	01/24/2022
Canadian Application No. 2,330,878	Pre-Processing and Post-Processing for Enhancing Knowledge Discovery Using Support Vector Machines	05/01/2019
European Publication No. 1082646	Pre-Processing and Post-Processing for Enhancing Knowledge Discovery Using Support Vector Machines	05/01/2019
Hong Kong Application No. 011065063	Pre-Processing and Post-Processing for Enhancing Knowledge Discovery Using Support Vector Machines	05/01/2019
Canadian Application No. 2,371,240	Enhancing Knowledge Discovery from Multiple Data Sets Using Multiple Support Vector Machines	05/24/2020
Japanese Application No. 2000-620577	Enhancing Knowledge Discovery from Multiple Data Sets Using Multiple Support Vector Machines	05/24/2020
Canadian Application No. 2,388,595	Method of Identifying Patterns in Biological Systems and Method of Uses	08/07/2020

European Publication No. 1236173	Method of Identifying Patterns in Biological Systems and Method of Uses	08/07/2020
Japanese Application No. 2001-534088	Method of Identifying Patterns in Biological Systems and Methods of Uses	08/07/2020

Patent/Application No.	Title	Expiration Date
U.S. Patent Publication No. 2005/0165556	Colon Cancer-Specific Markers	05/01/2019
U.S. Application No. 11/926,129	System for Providing Data Analysis Services Using a Support Vector Machine for Processing Data Received from a Remote Source	05/01/2019
U.S. Patent Publication No. 2008/0033899	Feature Selection Using Support Vector Machine Classifier	05/01/2019
European Publication No. 1828917	Biomarkers for Screening, Predicting, and Monitoring Prostate Disease	11/14/2025
Canadian Application No. 2,435,254	Methods of Identifying Patterns in Biological Systems and Uses Thereof	01/24/2022
European Publication No. 1459235	Methods of Identifying Patterns in Biological Systems and Uses Thereof	01/24/2022
U.S. Application No. 11/929,354	Kernels and Methods for Selecting Kernels for Use in a Learning Machine	05/07/2022
Canadian Application No. 2,435,290	Computer Aided Image Analysis	01/23/2022
European Publication No. 1356421	Computer Aided Image Analysis	01/23/2022
U.S. Application No. 11/929,213	Methods for Feature Selection in a Learning Machine	08/07/2020
U.S. Patent Publication No. 2005/0071140	Model Selection for Cluster Data Analysis	05/17/2022
U.S. Application No. 11/929,522	Model Selection for Cluster Data Analysis	05/17/2022
U.S. Patent Publication No. 2006/0064415	Data Mining Platform for Bioinformatics	08/07/2020
U.S. Patent Publication No. 2008/0097938	Data Mining Platform for Knowledge Discovery from Heterogeneous Data Types and/or Heterogeneous Data Sources	08/07/2020
U.S. Patent Publication No. 2005/0228591	Kernels and Kernel Methods for Spectral Data	08/07/2020
U.S. Patent Publication No. 2008/0097940	Kernels and Kernel Methods for Spectral Data	08/07/2020
U.S. Application No. 11/928,784	Pre-Processed Feature Ranking for a Support Vector Machine	08/07/2020
European Publication No. 1449108	Pre-Processed Feature Ranking for a Support Vector Machine	11/07/2022
U.S. Patent Publication No. 2008/0050836	Biomarkers for Screening, Predicting, and Monitoring Benign Prostate Hyperplasia	01/24/2022

U.S. Application No. 12/025,724	Biomarkers Upregulated in Prostate Cancer	01/24/2022
U.S. Application No. 12/242,264	Biomarkers Overexpressed in Prostate Cancer	01/24/2022

Patent/Application No.	Title	Expiration Date
U.S. Application No. 12/ 242,912	Biomarkers Downregulated in Prostate Cancer	01/24/2022
U.S. Application No. 12/ 327,823	Methods for Screening, Predicting and Monitoring Prostate Cancer	01/24/2022
U.S. Application No. 12/ 349,437	Methods for Screening, Predicting and Monitoring Prostate Cancer	01/24/2022
U.S. Application No. 12/ 367,541	Method and System for Analysis of Flow Cytometry Data Using Support Vector Machines	02/08/2029
WIPO Application No. PCT/ US09/33504	Method and System for Analysis of Flow Cytometry Data Using Support Vector Machines	02/08/2029

HDC also owns intellectual property rights in U.S. and foreign patents and pending patent applications covering the FGM technology. The FGM portfolio includes two issued patents and three pending patent applications, which are:

Patent/Application No.	Title	Expiration Date
U.S. Patent No. 6,920,451	Method for the Manipulation, Storage, Modeling, Visualization and Quantification of Datasets.	01/19/2021
U.S. Patent No. 7,366,719	Method for the Manipulation, Storage, Modeling, Visualization and Quantification of Datasets	01/19/2021
European Patent No.: 1252588	Method for the Manipulation, Storage, Modeling, Visualization and Quantification of Datasets.	01/19/2021
U.S. Patent Publication No.: 2005/0079524	Method for Identifying Biomarkers Using Fractal Genomics Modeling.	01/19/2021
U.S. Patent Publication No.: 2005/0158735	Method for Studying Cellular Chronomics and Causal Relationships of Genes Using Fractal Genomics Modeling.	01/19/2021

Our Competition

HDC's main service/product is *Biomarker Discovery*. While a number of companies perform *Biomarker Discovery*, we feel that our SVM and FGM technologies give us a distinct advantage over competing technologies. Neither classical statistical analysis nor neural networks (the two competing technologies) can handle the large amounts of inputs necessary to produce fully validated biomarkers.

Customers and Licensees

We have produced sales, licensing, and developmental revenue since 2005 through agreements with a few customers and licensees. We have a strategic alliance and licensing agreement with Clarient, Inc. for commercialization of a new molecular diagnostic test for prostate cancer based on our discovered prostate cancer biomarker signature. Pursuant to our agreement, as amended, Clarient, Inc. obtained a non-exclusive license to the prostate cancer test in exchange for our 10% royalty interest from all reimbursements of the test once commercialized. We and Clarient have successfully completed all phases of the clinical trial process with the hope of achieving the statistical significance necessary to validate the ability to commercialize a test. Results from both the Phase I, Phase II and Phase III double-blinded clinical validation studies now completed at Clarient demonstrated a very high success rate for identifying the presence of Grade 3 or higher prostate cancer cells (clinically significant cancer), as well as normal BPH (benign prostatic hyperplasia) cells. With the completion of the clinical trial, HDC's new gene-based molecular diagnostic test is now being commercialized to be used by physicians on their patients at risk of having prostate cancer. The new prostate cancer test will be performed at Clarient's Clinical Laboratory in Aliso Viejo, CA. HDC will receive 10% royalty on each test performed.

In July 2008, we entered into a development and license agreement with DCL Medical Laboratories LLC, a full-service clinical laboratory focused on women's health, for the collaborative development and commercialization of SVM-based computer assisted diagnostic tests for the independent detection of ovarian, cervical and endometrial cancers. Pursuant to the development and license agreement, we will own any developed intellectual property and DCL will have a sole use license relating to applications and new mathematical tools developed during the course of the development and license agreement. Images and interpretative data from this new SVM-based system may now be transmitted electronically, thus allowing remote review and collaborative interpretation. Dr. Hanbury, one of our directors, is currently President, CEO and a shareholder of DCL.

In August 2008, we entered into a licensing agreement with Smart Personalized Medicine, LLC, a company founded by our former director, Dr. Richard Caruso. Under the terms of this agreement, we will work to develop a superior breast cancer prognostic test using our SVM technology in collaboration with a prominent cancer research hospital. In exchange for a license to use our SVM technology, we received a 15% equity position in Smart Personalized Medicine, LLC (which will remain undiluted until there is at least $5 million in investment from investors in Smart Personalized Medicine, LLC) and a per test royalty up to 7.5% based on net proceeds received from the sale of the new breast cancer prognostic test.

In September 2008, we received royalty proceeds related to our licensing agreement with Bruker Daltonics, which was originally announced in August, 2006. The royalties relate to Bruker Daltonics' sales of its ClinProTools™ clinical proteomics product line for its mass spectrometers, which contains HDC's SVM technology. Bruker launched its ClinProTools™ at approximately the same time as the license with our Company. While this royalty was relatively small, it represents additional royalty payments from this relationship and offers the opportunity of future royalties for the life of the patents related to future sales of the Bruker product.

See Subsequent Events for additional licensing agreements that the Company has executed since December 31, 2008.

Research and Development

Our past Research and Development costs have been minimal due to the unique relationships we have maintained with the members of our scientific team and their institutions. Our total R&D costs have consisted solely of the consultant fees paid to Dr. Stamey, Dr. Vapnik, and Dr. Guyon. These fees consisted of $14,160 for 2008 and $46,432 for 2007.

ITEM 1A. RISK FACTORS

This document contains certain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 including, without limitation, all statements, other than statements of historical facts, that address activities, events or developments that we expect or anticipate will or may occur in the future, including statements regarding the successful implementation of our services, business strategies and measures to implement such strategies, competitive strengths, expansion and growth of our business and operations, references to future success and other such matters. All such statements are forward-looking statements and are based on the beliefs of, assumptions made by and information currently available to our management. The words "expect," "estimate," "anticipate," "believe," "intend," "plan" and similar expressions and variations thereof are intended to identify forward-looking statements. Such forward-looking statements may involve uncertainties and other factors that may cause the actual results and performance of our company to be materially different from future results or performance expressed or implied by such statements.

The cautionary statements set forth in this "Risk Factors" section and elsewhere in this annual report identify important factors with respect to such forward-looking statements, including certain risks and uncertainties, which could cause actual results to differ materially from those expressed in or implied by such forward-looking statements. Among others, factors that could adversely affect actual results and performance include failure to successfully develop a profitable business, delays in identifying and enrolling customers, and the inability to retain a significant number of customers. All written or oral forward-looking statements attributable to us are expressly qualified in their entirety by the foregoing cautionary statement.

Risks Related to Our Business

We are a developing business and a high-risk company.

We are a high-risk company in a volatile industry. In September 2003, we completely changed the focus of our business from wireless telecommunications to biotechnology. Consequently, we have a limited history on which to base an evaluation of our business and prospects. Thus, investors should recognize that an investment in our company is risky and highly speculative. We are a developing business, and our prospects must be considered in light of the risks, uncertainties, expenses and difficulties frequently encountered by companies in their early stages of development. Failure to implement and execute our business and marketing strategy successfully, to provide superior customer service, to respond to competitive developments and to integrate, retain and motivate qualified personnel could have a material adverse effect on our business, results of operations and financial condition. We must successfully overcome these and other business risks. If our efforts are unsuccessful or other unexpected events occur, purchasers of the common stock offered hereby could lose their entire investment.

We expect to incur future losses, and we may never achieve or sustain profitability.

We expect to continue to incur net losses and have negative cash flows in the future due in part to high research and development expenses, including enhancements to our technologies and investments in new technologies. Our expenses are expected to exceed our income until we successfully complete transactions resulting in significant revenue and thus our capital will be decreased to pay these operating expenses. If we ever become profitable, of which there is no assurance that we can, from time to time our operating expenses could exceed our income and thus our capital will be decreased to pay these operating expenses. We cannot assure you that we will ever achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability.

Our business is difficult to evaluate because we have a limited history of operations.

Since reorganizing in 2003, our focus and our business model have been continually evolving. Accordingly, we have a history of operations in which there is limited information to identify any historical pattern. Even if we could discern such a pattern, the rapidly evolving nature of the biotechnology and pharmaceutical industries would make it very difficult to identify any meaningful information in such a short history. Therefore, it is also difficult to make any projections about the future of our operations. This difficulty may result in our shares trading below their value.

We may need additional financing.

During the first quarter of 2009, we raised additional capital in the amount of $200,000 through the issuance of Series B Preferred Stock. If we are unable to generate sufficient revenue, additional proceeds may be required to finance our activities. We cannot assure prospective investors that we will not need to raise additional capital or that we would be able to raise sufficient additional capital on favorable terms, if at all. There can be no assurance that additional financing will be available, if required, on terms acceptable to us. If we fail to raise sufficient funds, we may have to cease operations, which would materially harm our business and financial results. If we raise additional capital by issuing equity securities, our stockholders may experience dilution. If we raise additional funds through collaboration and licensing arrangements, we may be required to relinquish some rights to our technologies or product candidates, or grant licenses on terms that are not favorable to us.

Demand for additional shares of Company common stock from private placement investor could cause substantial dilution to existing shareholders.

The Company recently received letters from an investor in the Company's 2007 private placement ("2007 Private Placement"), claiming (a) that its anti-dilution rights received on the 2007 Private Placement had been triggered by various amendments to the vesting provisions of outstanding warrants and that, as a result, it is entitled to receive additional shares of Company common stock for no additional consideration, (b) breaches of its contractual rights to approve certain issuances of derivative securities, (c) breaches of other covenants made by the Company in the 2007 Private Placement, (d) the Company had violated its SEC disclosure obligations, and (e) various breaches by the members of the Board of Directors of their fiduciary duties. While the Company denies the allegations and believes they are without merit, if the investor's position is correct, the Company may be required, among other things, to issue approximately 98,500,000 shares to such investor, and, if all of the other investors in the 2007 Private Placement sought the same remedy, the Company may be required to issue approximately 739,000,000 shares in the aggregate. Issuing such shares of common stock would cause substantial dilution to existing shareholders and would exceed the number of the Company's authorized shares of common stock.

Our operating results are unpredictable and may fluctuate significantly from period to period, which may cause our stock price to decline and result in losses to investors.

Our operating results may vary from period to period due to numerous factors, many of which are outside our control, including the number, timing and acceptance of our services. Factors that may cause our results to vary by period include:

- changes in the demand for our products and services;
- the nature, pricing and timing of products and services provided to our collaborators;
- acquisition, licensing and other costs related to the expansion of our operations, including operating losses of acquired businesses;
- reduced capital investment for extended periods;
- losses and expenses related to our investments in joint ventures and businesses;
- regulatory developments or changes in public perceptions relating to the use of genetic information and the diagnosis and treatment of disease based on genetic information;
- changes in intellectual property laws that affect our rights in genetic information that we sell; and
- payments of milestones, license fees or research payments under the terms of our increasing number of external alliances.

Research and development costs associated with our technologies and services, as well as personnel costs, marketing programs and overhead, account for a substantial portion of our operating expenses. These expenses cannot be adjusted quickly in the short term. If revenues of the business decline or do not grow as anticipated, we may not be able to reduce our operating expenses accordingly. Failure to achieve anticipated levels of revenue could therefore significantly harm our operating results for a particular period.

Our stock price has been, and is likely to continue to be, highly volatile.

Our stock price has, since September 1, 2003, traded as high as $0.60 and as low as $0.04. Our stock price could fluctuate significantly due to a number of factors beyond our control, including:

- variations in our actual or anticipated operating results;
- sales of substantial amounts of our stock;
- announcements about us or about our competitors, including technological innovation or new products or services;
- litigation and other developments related to our patents or other proprietary rights or those of our competitors;
- conditions in the life sciences, pharmaceuticals or genomics industries; and
- governmental regulation and legislation.

In addition, the stock market in general, and the market for life sciences and technology companies in particular, have experienced extreme price and volume fluctuations recently. These fluctuations often have been unrelated or disproportionate to the operating performance of these companies. These broad market and industry factors may decrease the market price of our common stock, regardless of our actual operating performance.

In the past, companies that have experienced volatility in the market prices of their stock have been the objects of securities class action litigation. If we became the object of securities class action litigation, it could result in substantial costs and a diversion of management's attention and resources, which could affect our profitability.

Our approach of incorporating ideas and methods from mathematics, computer science and physics into the disciplines of biology, organic chemistry and medicine is novel and may not be accepted by our potential customers or collaborators.

We intend to create a fully integrated biomarker discovery company to provide pharmaceutical and diagnostic companies worldwide with new, clinically relevant and economically significant biomarkers. We are a drug and diagnostic discovery company, which incorporates ideas and methods from mathematics, computer science and physics into the disciplines of biology, organic chemistry and medicine. Our objective is to significantly increase the probability of success of drug discovery and diagnostic development. Our approach and the products and technologies derived from our approach are novel. Our potential customers and collaborators may be reluctant to accept our new, unproven technologies, and our customers may prefer to use traditional services. In addition, our approach may prove to be ineffective or not as effective as other methods. Our products and technologies may prove to be ineffective if, for instance, they fail to account for the complexity of the life processes that we are now attempting to model. If our customers or collaborators do not accept our products or technologies and/or if our technologies prove to be ineffective, our business may fail or we may never become profitable.

Even if our computational technologies are effective as research tools, our customers or we may be unable to develop or commercialize new drugs, therapies or other products based on them.

Even if our computational technologies perform their intended functions as research tools, our customers may be unable to use the discoveries resulting from them to produce new drugs, therapies, diagnostic products or other life science products. Despite recent scientific advances in the life sciences and our improved understanding of biology, the roles of genes and proteins and their involvement in diseases and in other life processes is not well understood. Only a few therapeutic products based on the study of and discoveries relating to genes or proteins have been developed and commercialized. If our customers are unable to use our discoveries to make new drugs or other life science products, our business may fail or we may never become profitable.

Our acquired SVM Portfolio utilizes technology covered by an earlier-issued patent, and if we lose the rights to use that patent, our ability to exploit certain aspects of our SVM technology will be impaired.

Our acquired SVM Portfolio utilizes technology covered by the original hyperplane patent (Pat. No. 5,649,068) invented by members of our Scientific Advisory Board and owned by Lucent Technologies, Inc. - GRL Corp. ("Lucent"). We have obtained an assignment of a pre-existing patent license from Lucent. If Lucent were to terminate the license, it is possible that we would not be able to use portions of the Support Vector Machine technology.

We are currently marketing our SVM Portfolio for sale.

In August 2008, we entered into an agreement with Patent Profit International ("PPI"), a Silicon Valley-based patent brokerage firm, with the goal of marketing our patent portfolio and exclusive rights to SVM techniques and applications beyond biomarker discovery and the healthcare field, to prospective buyers/licensees in a wide range of technologies, including, but not limited to, information technology such as Internet browsers and search engines, digital photography, spam mail detection, oil exploration, homeland security, and the automotive industry. As a requirement of any potential sale of the patent portfolio, HDC expects to retain a royalty-free, worldwide, exclusive license, with the right to grant sublicenses, in the entire field of healthcare to enable our continued research, development, licensing and commercialization activities in diagnostic and prognostic areas such as prostate cancer, ovarian cancer, breast cancer, endometrial cancer, colon cancer, leukemia and other healthcare arenas. While we intend to enter into a definitive agreement to effect the sale of the SVM Portfolio, we cannot offer assurances that any strategic sale of the SVM Portfolio will be available to us on a timely basis or on acceptable terms, if at all.

The industries in which we are active are evolving rapidly, and we may be unable to keep pace with changes in technology.

The pharmaceutical and biotechnology industries are characterized by rapid technological change. This is especially true of the data-intensive areas of such technologies. Our future success will largely depend on maintaining a competitive position in the field of drug, therapeutics and diagnostic products discovery. If we fail to keep pace with changes in technology, our business will be materially harmed. Rapid technological development may result in our products or technologies becoming obsolete. This may occur even before we recover the expenses that we incurred in connection with developing those products and technologies. Products or services offered by us could become obsolete due to the development of less expensive or more effective drug or diagnostics discovery technologies. We may not be able to make the necessary enhancements to our technologies to compete successfully with newly emerging technologies.

We face intense competition and if we are unable to compete successfully we may never achieve profitability.

The markets for our products and services are very competitive, and we expect our competition to increase in the future. Although we have not identified one company that provides the full suite of services that we do, we compete with entities in the U.S. and elsewhere that provide products and services for the analysis of genomic information and information relating to the study of proteins (proteomic information) or that commercializes novel genes and proteins. These include genomics, pharmaceutical and biotechnology companies, academic and research institutions and government and other publicly funded agencies. We may not be able to successfully compete with current and future competitors. Many of our competitors have substantially greater capital resources, research and development staffs, facilities, manufacturing and marketing experience, distribution channels and human resources than we do. This may allow these competitors to discover or to develop products in advance of us or of our customers.

Some of our competitors, especially academic and research institutions and government and other publicly funded agencies, may provide for free services or data similar to the services and data that we provide for a fee. Moreover, our competitors may obtain patent and other intellectual property protection that would limit our rights or our customers' and partners' ability to use or commercialize our discoveries, products and services. If we are unable to compete successfully against existing or potential competitors, we may never achieve profitability.

Our management may be unable to address future growth.

We anticipate that if we experience a period of growth in the future, a period of significant expansion will be required to address potential growth in our customer base and market opportunities. This expansion will place a significant strain on our management, operational and financial resources. To manage future growth of our operations, if any, we will be required to improve existing and implement new operational systems, procedures and controls, and to expand, train and manage our employee base. There can be no assurance that our current and planned personnel, systems, procedures and controls will be adequate to support our future operations, that management will be able to hire, train, retain, motivate and manage the required personnel or that we will be able to identify, manage and exploit existing and potential strategic relationships and market opportunities. Our failure to manage growth effectively could have a material adverse effect on our business, results of operations and financial condition.

If our business does not keep up with rapid technological change or continue to introduce new products, we may be unable to maintain market share or recover investments in our technologies.

Technologies in the biomarker industry have undergone, and are expected to continue to undergo, rapid and significant change. We may not be able to keep pace with the rapid rate of change and introduce new products that will adequately meet the requirements of the marketplace or achieve market acceptance. If we fail to introduce new and innovative products, we could lose market share to our competitors and experience a reduction in our growth rate and damage to our reputation and business.

The future success of our business will depend in large part on our ability to maintain a competitive position with respect to these technologies. We believe that successful new product introductions provide a significant competitive advantage because customers make an investment of time in selecting and learning to use a new product, and are reluctant to switch to a competing product after making their initial selection. However, our business or others may make rapid technological developments, which could result in our technologies, products or services becoming obsolete before we are able to recover the expenses incurred to develop them.

If our business cannot enter into strategic alliances or licensing agreements, we may be unable to develop and commercialize our technologies into new products and services or continue to commercialize existing products or services.

We may be unable to maintain or expand existing strategic alliances or establish additional alliances or licensing arrangements necessary to continue to develop and commercialize products, and any of those arrangements may not be on terms favorable to the business. In addition, current or any future arrangements may be unsuccessful. If we are unable to obtain or maintain any third party license required to sell or develop our products or product enhancements, we may choose to obtain substitute technology either through licensing from another third party or by developing the necessary technology ourselves. Any substitute technology may be of lower quality or may involve increased cost, either of which could adversely affect our ability to provide our products competitively and harm our business.

We also depend on collaborators for the development and manufacture of complex instrument systems and chemicals and other materials that are used in laboratory experiments. We cannot control the amount and timing of resources our collaborators devote to our products. We may not be able to enter into or satisfactorily retain these research, development and manufacturing collaborations and licensing agreements, which could reduce our growth and harm our competitive position.

We may not be able to find business partners to develop and commercialize product candidates deriving from our discovery activities.

Our strategy for the development and commercialization of diagnostic markers and therapeutic proteins depends on the formation of collaborations or licensing relationships with third parties that have complementary capabilities in relevant fields. Potential third parties include pharmaceutical and biotechnology companies, diagnostic companies, academic institutions and other entities. We cannot assure you that we will be able to form these collaborations or license our discoveries or that these collaborations and licenses will be successful.

Our dependence on licensing and other collaboration agreements with third parties subjects us to a number of risks.

We may not be able to enter into licensing or other collaboration agreements on terms favorable to us. Collaborators may typically be afforded significant discretion in electing whether to pursue any of the planned activities. In most cases, our collaborators or licensees will have responsibility for formulating and implementing key strategic or operational plans. Decisions by our collaborators or licensees on these key plans, which may include development, clinical, regulatory, marketing (including pricing), inventory management and other issues, may prevent successful commercialization of the product or otherwise affect our profitability.

In addition, we may not be able to control the amount and timing of resources our collaborators devote to the product candidates, and collaborators may not perform their obligations as expected. Additionally, business combinations or changes in a collaborator's or a licensee's business strategy may negatively affect its willingness or ability to complete its obligations under the arrangement with us. Furthermore, our rights in any intellectual property or products that may result from our collaborations may depend on additional investment of money that we may not be able or willing to make.

Potential or future collaborators may also pursue alternative technologies, including those of our competitors. Disputes may arise with respect to the ownership of rights to any technology or product developed with any future collaborator. Lengthy negotiations with potential collaborators or disagreements between us and our collaborators may lead to delays or termination in the research, development or commercialization of product candidates or result in time-consuming and expensive litigation or arbitration. If our collaborators pursue alternative technologies or fail to develop or commercialize successfully any product candidate to which they have obtained rights from us, our business, financial condition and results of operations may be significantly harmed.

If we are unable to hire or retain key personnel or sufficient qualified employees, we may be unable to successfully operate our business.

Our business is highly dependent upon the continued services of our Chief Executive Officer, Board of Directors, and Scientific Advisory Board. While members of our senior management are parties to employment or consulting agreements and non-competition and non-disclosure agreements, we cannot assure you that these key personnel and others will not leave us or compete with us, which could materially harm our financial results and our ability to compete. The loss, incapacity or unavailability for any reason of any of these individuals could have a material adverse effect upon our business, as well as our relationships with our potential customers. We do not carry key person life insurance on any member of our senior management. Furthermore, competition for highly qualified personnel in our industry and geographic locations is intense. Our business would be seriously harmed if we were unable to retain our key employees, or to attract, integrate or retain other highly qualified personnel in the future.

We may not be able to employ and retain experienced scientists, mathematicians and management.

Technologies in our industry have undergone, and are expected to continue to undergo, rapid and significant change. A highly skilled staff is integral to developing, marketing and supporting new products that will meet or exceed the expectations of the marketplace and achieve market acceptance. Without experienced staff, our business may be unable to maintain or grow market share, which could result in lower than expected revenues and earnings.

We may acquire or make strategic investments in other businesses and technologies in the future, and these could prove difficult to integrate, disrupt our business, dilute stockholder value and adversely affect our operating results.

If opportunities arise, we may consider making acquisitions of businesses, technologies, services or products. Acquisitions may involve significant cash expenditures, debt incurrence, additional operating losses and expenses that may have a material adverse effect on the operating results of our business. Moreover, even if we acquire complementary businesses or technologies, we may be unable to successfully integrate any additional personnel, operations or acquired technologies into our business.

Difficulties in integrating an acquired business could disrupt our business, distract our management and employees and increase our expenses. Future acquisitions could expose us to unforeseen liabilities and result in significant charges relating to intangible assets. Sizable acquisitions may also divert senior management from focusing on our existing business plan. Finally, if we make acquisitions using convertible debt or equity securities, existing stockholders may be diluted, which could affect the market price of our stock.

If our access to tissue samples or to genomic data or other information is restricted, or if this data is faulty, our business may suffer.

To continue to build our technologies and related products and services, we need access to third parties' scientific and other data and information. We also need access to normal and diseased human and other tissue samples and biological materials. We may not be able to obtain or maintain such access on commercially acceptable terms. Some of our suppliers could become our competitors and discontinue selling supplies to us. Information and data from these suppliers could contain errors or defects that could corrupt our databases or the results of our analysis of the information and data. In addition, government regulation in the United States and other countries could result in restricted access to, or use of, human and other tissue samples. Although currently we do not face significant problems in obtaining access to tissues, if we lose access to sufficient numbers or sources of tissue samples, or if tighter restrictions are imposed on our use of the information generated from tissue samples, our business may suffer.

The sales cycle for some of our products and services is lengthy. We expend substantial funds and management effort with no assurance of successfully selling our products or services.

Our ability to obtain customers for our platforms, tools and services depends in large part upon the perception that our technologies can help accelerate their efforts in drug and diagnostics discovery. Our ability to obtain customers for our therapeutic or diagnostic product candidates significantly depends on our ability to validate and prove that each such product candidate is suitable for our claimed therapeutic or diagnostic purposes. Our ability to obtain customers will also depend on our ability to successfully negotiate terms and conditions for such arrangements. The sales cycle for our therapeutic and diagnostic product candidates is typically lengthy and may take more than 12 months.

An inability to protect our proprietary data, technology or products may harm our competitive position.

If we do not adequately protect the intellectual property underlying our products and services, competitors may be able to develop and market the same or similar products and services. This would erode our competitive advantage. In addition, the laws of some countries do not protect or enable the enforcement of intellectual property to the same extent as the laws of the United States.

We use contractual obligations to protect a significant portion of our confidential and proprietary information and know-how. This includes a substantial portion of the knowledge base from which we develop a large portion of our proprietary products and services. However, these measures may not provide adequate protection for our trade secrets or other proprietary information and know-how. Customers, employees, scientific advisors, collaborators or consultants may still disclose our proprietary information in violation of their agreements with us, and we may not be able to meaningfully protect our trade secrets against this disclosure.

In addition, we have applied for patents covering some aspects of some of our technologies and predicted genes and proteins we have discovered using these technologies. We plan to continue to apply for patents covering parts of our technologies and discoveries as we deem appropriate, but cannot assure you that we will be able to obtain any patents. The patent positions of biotechnology companies are generally uncertain and involve complex legal and factual questions. Legislative changes and/or changes in the examination guidelines of governmental patents offices may negatively affect our ability to obtain patent protection for certain aspects of our intellectual property, especially with respect to genetic discoveries.

Our success depends in large part on our ability to patent our discoveries.

Our success depends, in large part, on our ability to obtain patents on biomarkers and pathways that we have discovered and are attempting to commercialize. We face intense competition from other biotechnology and pharmaceutical companies. These include customers who use our products and technologies and are pursuing patent protection for discoveries, which may be similar or identical to our discoveries. We cannot assure you that other parties have not sought patent protection relating to the biomarkers and pathways that we discovered or may discover in the future. Our patent applications may conflict with prior applications of third parties or with prior publications. They may not result in issued patents and, even if issued, our patents could be invalidated or may not be sufficiently broad to provide us with any competitive advantages. U.S. and other patent applications ordinarily remain confidential for 18 months from the date of filing. As a result, patent applications that we file which we believe are novel at the time of filing, may be determined at a later stage to be inconsistent with earlier applications. Any of these events could materially harm our business or financial results.

Litigation or other proceedings or third party claims of intellectual property infringement could prevent us, or our customers or collaborators, from using our discoveries or require us to spend time and money to modify our operations.

If we infringe patents or proprietary rights of third parties, or breach licenses that we have entered into with regard to our technologies and products, we could experience serious harm. If litigation is commenced against us for intellectual property rights infringement, we may incur significant costs in litigating, whether or not we prevail in such litigation. These costs would also include diversion of management and technical personnel to defend us against third parties or to enforce our patents (once issued) or other rights against others. In addition, parties making claims against us may be able to obtain injunctive or other equitable relief that could prevent us from being able to further develop or commercialize. This could also result in the award of substantial damages against us. In the event of a successful claim of infringement against us, we may be required to pay damages and obtain one or more licenses from third parties. If we are not able to obtain these licenses at a reasonable cost, if at all, we could encounter delays in product introductions while we attempt to develop alternative methods or products. Defense of any lawsuit or failure to obtain any of these licenses could prevent us from commercializing available products.

The technology that we use to develop our products, and the technology that we incorporate in our products, may be subject to claims that they infringe the patents or proprietary rights of others. The risk of this occurring will tend to increase as the genomics, biotechnology and software industries expand, more patents are issued and other companies engage in other genomic-related businesses.

As is typical in the genomics, biotechnology and software industries, we will probably receive in the future notices from third parties alleging patent infringement. We believe that we are not infringing the patent rights of any third parties. No third party has filed a patent lawsuit against us. We may, however, be involved in future lawsuits alleging patent infringement or other intellectual property rights violations. In addition, litigation may be necessary to:

- assert claims of infringement;
- enforce our patents as they are granted;
- protect our trade secrets or know-how; or
- determine the enforceability, scope and validity of the proprietary rights of others.

We may be unsuccessful in defending or pursuing these lawsuits. Regardless of the outcome, litigation can be very costly and can divert management's efforts. An adverse determination may subject us to significant liabilities or require us to seek licenses to other parties' patents or proprietary rights. We may also be restricted or prevented from licensing or selling our products and services. Further, we may not be able to obtain any necessary licenses on acceptable terms, if at all.

The scope of patents we receive may not provide us with adequate protection of our intellectual property, which would harm our competitive position.

Any issued patents that cover our proprietary technologies may not provide us with substantial protection or be commercially beneficial to the business. The issuance of a patent is not conclusive as to its validity or its enforceability. Federal courts may invalidate these patents or find them unenforceable. Competitors may also be able to design around our patents. If we are unable to protect our patented technologies, we may not be able to commercialize our technologies, products or services and our competitors could commercialize our technologies.

Our business also relies on a combination of trade secrets, copyrights and trademarks, non-disclosure agreements and other contractual provisions and technical measures to protect our intellectual property rights. While we generally require employees, collaborators, consultants and other third parties to enter into confidentiality agreements where appropriate, it is not always possible to enforce these arrangements.

Monitoring the unauthorized use of our technology is difficult, and the steps we have taken may not prevent unauthorized use of our technology. The disclosure or misappropriation of our intellectual property for any of the above reasons could harm our ability to protect our rights and our competitive position.

We may become involved in disputes regarding our patents and other intellectual property rights, which could result in the forfeiture of these rights, expose the business to significant liability and divert management's focus.

In order to protect or enforce our patent rights, our business may need to initiate patent litigation against third parties. In addition, we may be sued by third parties alleging that we are infringing their intellectual property rights. These lawsuits are expensive, take significant time and divert management's focus from other business concerns. These lawsuits could result in the invalidation or limitation of the scope of our patents, forfeiture of the rights associated with these patents or an injunction preventing Health Discovery from selling any allegedly infringing product. In addition, we may not prevail or a court may find damages or award other remedies in favor of the opposing party in any of these suits. During the course of these suits, there may be public announcements of the results of hearings, motions and other interim proceedings or developments in the litigation. Securities analysts or investors may perceive these announcements to be negative, which could cause the market price of our common stock to decline.

Many of our services will be based on complex, rapidly developing technologies. Although we will try to identify all relevant third party patents, these products could be developed by the business without knowledge of published or unpublished patent applications that cover some aspect of these technologies. The biomarker industry has experienced intensive enforcement of intellectual property rights by litigation and licensing. If we are found to be infringing the intellectual property of others, we could be required to stop the infringing activity, or we may be required to design around or license the intellectual property in question. If we are unable to obtain a required license on acceptable terms, or are unable to design around any third party patent, we may be unable to sell some of our services, which could result in reduced revenue.

Risks Related to Our Industry

There are many risks of failure in the development of drugs, therapies, diagnostic products and other life science products. These risks are inherent to the development and commercialization of these types of products.

Risks of failure are inseparable from the process of developing and commercializing drugs, therapies, diagnostic products and other life science products. These risks include the possibility that any of these products will:

- be found to be toxic or ineffective;
- fail to receive necessary regulatory approvals;
- be difficult or impossible to manufacture on a large scale;
- be uneconomical to market;
- fail to be developed prior to the successful marketing of similar products by competitors; or
- be impossible to market because they infringe on the proprietary rights of third parties or compete with superior products marketed by third parties.

We are dependent on our customers' commercialization of our discoveries. Any of these risks could materially harm our business and financial results.

The trend towards consolidation in the pharmaceutical and biotechnology industries may adversely affect us.

The trend towards consolidation in the pharmaceutical and biotechnology industries may negatively affect us in several ways. These consolidations usually involve larger companies acquiring smaller companies, which results in the remaining companies having greater financial resources and technological capabilities, thus strengthening competition in the industry. In addition, continued consolidation may result in fewer customers for our products and services.

We may be subject to product liability claims if products derived from our products or services harm people.

We may be held liable if any product that is made with the use, or incorporation of, any of our technologies or data causes harm or is found otherwise unsuitable. These risks are inherent in the development of genomics, functional genomics and pharmaceutical products. If we are sued for any harm or injury caused by products derived from our services or products, our liability could exceed our total assets. In addition, such claims could cause us to incur substantial costs and subject us to negative publicity even if we prevail in our defense of such claims.

Our business and the products developed by our collaborators and licensees may be subject to governmental regulation.

Any new therapy or diagnostic product that may be developed by our collaborators or by our licensees will have to undergo a lengthy and expensive regulatory review process in the United States and other countries before it can be marketed. It may be several years, or longer, before any therapy or diagnostic product that is developed by using our technologies, will be sold or will provide us with any revenues. This may delay or prevent us from becoming profitable. Changes in policies of regulatory bodies in the United States and in other countries could increase the delay for each new therapy and diagnostic product.

Even if regulatory approval is obtained, a product on the market and its manufacturer are subject to continuing review. Discovery of previously unknown problems with a product may result in withdrawal of the product from the market.

Although we intend to become involved in the clinical phases in the future, we still expect to rely mainly on collaborators or licensees of our discovery activities to file regulatory approval applications and generally direct the regulatory review process. We cannot be certain whether they will be able to obtain marketing clearance for any product that may be developed on a timely basis, if at all. If they fail to obtain required governmental clearances, it will prevent them from marketing therapeutic or diagnostic products until clearance can be obtained, if at all. This will in turn reduce our chances of receiving various forms of payments, including those relating to sales of marketed therapeutic or diagnostic products by them.

The law applicable to us may change in a manner that negatively affects our prospects.

We must comply with various legal requirements, including requirements imposed by federal and state securities and tax laws. Should any of those laws change over the term of our existence, the legal requirements to which we may be subject could differ materially from current requirements, which could increase the cost of doing business or preclude us from undertaking certain parts of our business plan, would result in adverse consequences.

If ethical and other concerns surrounding the use of genetic information become widespread, there may be less demand for our products and services.

Genetic testing has raised ethical issues regarding confidentiality and the appropriate uses of the resulting information. For these reasons, governmental authorities may call for limits on or regulation of the use of genetic testing or prohibit testing for genetic predisposition to various conditions, particularly for those that have no known cure. Any of these scenarios could reduce the potential markets for our technologies in the field of predictive drug response, which could materially harm our business and financial results.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We do not own any real property. We lease 908 square feet of office space in Savannah, Georgia, pursuant to a three year lease dated July 1, 2007 with an initial cost of $1,678 per month. We currently pay $1,741 per month due to subsequent contractual increases. Our principal executive office is located at 2 East Bryan Street, Suite #601, Savannah, Georgia 31401, and our telephone number is (912) 443-1987. Our principal executive office is well maintained and suitable for the business conducted in it.

ITEM 3. LEGAL PROCEEDINGS

None.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

No matter was submitted during the fourth quarter of the fiscal year ended December 31, 2008 to a vote of our shareholders, through the solicitation of proxies or otherwise.

PART II

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

Our common stock is traded on the OTC Bulletin Board under the symbol HDVY. The range of closing prices for our common stock, as reported on YahooFinance.com during each quarter of the last two fiscal years was as follows. These quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not represent actual transactions.

	High	Low
First Quarter 2007	$0.16	$0.09
Second Quarter 2007	$0.14	$0.09
Third Quarter 2007	$0.11	$0.07
Fourth Quarter 2007	$0.11	$0.07
First Quarter 2008	$0.08	$0.03
Second Quarter 2008	$0.08	$0.03
Third Quarter 2008	$0.09	$0.03
Fourth Quarter 2008	$0.07	$0.04

At March 27, 2009, there were approximately 355 holders of record of our common stock.

We have not paid any cash dividends since inception, and we do not anticipate paying any in the foreseeable future. We intend to retain future earnings, if any, to support the development and growth or our business. Payment of future dividends, if any, will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs and plans for expansion. Under the Georgia Business Corporation Act, a company is prohibited from paying a dividend if, after giving effect to that dividend, either the company would not be able to pay its debts as they become due in the usual course of business or the company's total assets would be less than the sum of its total liabilities plus the amount that would be needed if the company were to be dissolved at the time of the dividend to satisfy the preferential rights upon dissolution of shareholders whose preferential rights are superior to those receiving the dividends. The Company has had limited revenue since inception, has incurred recurring losses from operations, and has had to continually seek additional capital investment in order to fund operations. The Company's auditors have concluded that these factors, among others, raise substantial doubt about the Company's ability to continue as a going concern. As a result, the Company may be unable to pay any dividend until the Company achieves a level of revenue that provides sufficient resources to pay its debts as they become due and to continue as a going concern. If the Company were to pay dividends, the holders of the shares of Series A Preferred Stock and the Series B Preferred Stock have a right to first receive, or simultaneously receive, a dividend on each outstanding share of Series A Preferred Stock on an as if converted to Common Stock basis. The holders of the shares of Series B Preferred Stock also accrue a 10% annual dividend and have a special dividend right to receive a portion of the Company's net revenues, subject to certain limitations.

Equity Compensation Plan Information

	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)
Equity compensation plans approved by security holders	0	0
Equity compensation plans not approved by security holders	11,900,000[1]	$ 0.09
Total	11,900,000	$ 0.09

[1] Includes options and warrants previously granted to service providers, consultants, directors and employees.

Private Placements

Effective September 7, 2007, the Company issued 31,937,500 shares of restricted common stock in return for $2.55 million in cash. Proceeds from the private placement were used for general working capital purposes. Each purchaser of common stock also received one warrant to acquire an equal number of shares at $0.14 (the "Tranche 1 Warrants") and one warrant to acquire an equal number of shares at $0.19 (the "Tranche 2 Warrants"). The holders must exercise fifty percent of the Tranche 1 Warrants if the market price for the Company's common stock is $0.17 for a period of thirty consecutive calendar days. The holders must exercise fifty percent of the Tranche 2 Warrants if the market price for the Company's common stock is $0.24 for a period of thirty consecutive calendar days. The common shares were valued at $0.07 each, and the warrants were valued at $0.005 each for a total of $0.08. Under the terms of the securities purchase agreement, the Company agreed to use its best efforts to file a registration statement to register the shares underlying the warrants issued and sold to the investors by May 15, 2008, and to use its best efforts to cause the registration statement to be declared effective by August 28, 2008. Shares totaling 515,384 were issued in 2008 under the terms of the agreement. The securities issued in the private placement were not registered under the Securities Act of 1933, as amended, and until they are registered the securities could not be offered or sold in the United States absent registration or the availability of an applicable exemption from registration. On September 19, 2008, the Company filed registration statement 333-150878 wherein 352,746 shares of stock and 70,549,868 shares of stock issuable upon the exercise of warrants were registered with the Securities and Exchange Commission.

Also in 2007, the Company also issued 19,601,322 shares of common stock and 7,437,184 shares of Series A Preferred Stock in a conversion of secured debt to equity. The amount of debt converted to common stock and warrants was approximately $1.6 million and the amount of debt converted to Series A Preferred Stock was $594,975. Each share of common stock issued in the conversion was accompanied by one warrant to acquire an equal number of shares of common stock at $0.14 and one warrant to acquire an equal number of shares of common stock at $0.19. The holders must exercise fifty percent of the Tranche 1 Warrants if the market price for the Company's common stock is $0.17 for a period of thirty consecutive calendar days. The holders must exercise fifty percent of the Tranche 2 Warrants if the market price for the Company's common stock is $0.24 for a period of thirty consecutive calendar days.

The shares of Series A Preferred Stock may be converted into common stock of the Company at any time without the payment of additional consideration. The Series A Preferred Stock must be converted into common stock of the Company when the trading value of the common stock of the Company exceeds $0.12 per share for a period of 30 consecutive calendar days. The holder of the Series A Preferred Stock has the right to receive dividends, the right to vote on matters presented to the common stockholders, and a preference right in the event of liquidation in an amount equal to $594,975, which is the amount of debt converted, plus any declared but unpaid dividends. The Company has a right to redeem the shares of Series A Preferred Stock upon the fifth anniversary of the issue date at a redemption price of $0.08 per share.

The shares and warrants offered and sold in each of the Company's private placements were offered and sold in reliance upon exemptions from registration pursuant to Section 4(2) of the Securities Act of 1933, as amended, and Regulation D promulgated thereunder. Based on information provided by each of the investors, all investors qualify as accredited investors (as defined by Rule 501 under the Securities Act of 1933, as amended). There were no underwriters in connection with either of these transactions, and there were no underwriting discounts or commissions.

The Company recently received letters from an investor in the Company's 2007 private placement, ("2007 Private Placement"), claiming, among other things further described in Item 1A Risk Factors to this Form 10-K, that its anti-dilution rights received in the 2007 Private Placement had been triggered by various amendments to the vesting provisions of outstanding warrants and that, as a result, it is entitled to receive additional shares of Company common stock for no additional consideration. Pursuant to the terms of the securities purchase agreement in the 2007 Private Placement, the investors are entitled to receive shares of Company common stock in certain dilutive events, including extending the exercise period of warrants. The investor claims that its anti-dilution protections were triggered as a result of the amendment to the vesting provisions of two outstanding warrants because the amendments were an extension of the exercise period of the warrant. The Company believes that the amendment was not an extension of the exercise period but rather a change to the condition on vesting, which would not trigger anti-dilution protections under the securities purchase agreement. Notwithstanding the Company's belief that the investor's claim is without merit, the Company rescinded one of the amendments (another warrant was held by Mr. Goldstein, who has since deceased). If the investor's position is correct, the Company may be required under the terms of the securities purchase agreement to issue approximately 98,500,000 shares to the investor, and, if all of the other investors sought the same remedy as a result of the amendment to the warrant, the Company may be required to issue approximately 739,000,000 shares in the aggregate, which would exceed the number of shares the Company is authorized to issue. Issuing shares of common stock to satisfy the Company's obligations under the anti-dilution provisions of the securities purchase agreement, if triggered, could cause substantial dilution to existing shareholders and would exceed the number of the Company's authorized shares of common stock.

On March 31, 2009, pursuant to a Securities Purchase Agreement (the "Purchase Agreement"), we completed the sale to individual investors to acquire of Series B Preferred Stock for $200,000 in cash. In connection with the Purchase Agreement, the Company may issue up to 6,250,000 shares of Series B Preferred Stock. The Series B Preferred Stock may be converted into Common Stock of the Company at the option of the holder, at a price of $0.08 per share (subject to adjustment) so long as the Company has a sufficient number of authorized shares to allow for the exercise of all of its outstanding derivative securities, and without the payment of additional consideration by the holder. The Shares of Series B Preferred Stock must be converted into Common Stock of the Company upon the demand by the Company after the fifth anniversary of the date of issuance. The Series B Preferred Stock will not be immediately registered under either federal or state securities laws and must be held for at least six months from the time they are issued or until a registration statement covering such securities is declared effective by the Securities and Exchange Commission or other applicable exemption applies.

Additional Issuance of Securities

In January 2007, the Company issued 100,000 shares of stock for warrants exercised at $0.01 each. Proceeds of $1,000 were recorded in capital stock. In February 2007, the Company granted warrants to purchase 15,235,000 restricted shares of Company stock at a fixed price of $0.35 per share. These warrants expired in November 2007. Also in February 2007, the Company issued warrants to purchase up to 500,000 shares of Company common stock to consultants, which vested immediately, and have an exercise price of $0.14. Additionally, the Company issued a warrant to purchase up to 100,000 shares of Company common stock to a consultant, which vests over ten months, and has an exercise price of $0.14.

During the second quarter of 2007, the Company issued warrants to purchase up to 500,000 shares of Company common stock to consultants, which vested immediately and had an exercise price of $0.11. These warrants expire December 31, 2009.

In July 2007, the Company issued 575,000 shares of common stock valued at $46,000 to a former employee as part of a termination agreement. In connection with that termination agreement, the Company also issued to the former employee a warrant to purchase 300,000 shares of Company common stock with an exercise price of $0.08. These warrants vested immediately and expire in three years. The Company also issued 400,000 shares of common stock valued at $32,000 as part of a litigation settlement in July 2007.

During the third quarter of 2007, the Company issued warrants to purchase 60,750 shares of Company common stock to a vendor as payment for professional services. These warrants expired on December 31, 2008.

During the third quarter of 2007, two new directors were each awarded warrants to purchase 1,500,000 shares of Company common stock, which vest over three years and expire in six years. These warrants have an exercise price of $0.08, and will be charged as directors' fees over the vesting period. One director subsequently forfeited his warrant upon his resignation as a director.

In the first quarter of 2008, the Company fully vested a 1,500,000 warrant grant for a retiring director by accelerating the vesting of 375,000 warrants exercisable at $0.13. A charge of $44,438 was recorded as directors' fees.

In June 2008, a warrant to purchase 1,500,000 shares of Company common stock at an exercise price of $0.08, vesting over three years and expiring in six years, was issued by the Company to a new director. The value of $85,200 will be charged as directors' fees over the vesting period.

During the third quarter of 2008, a director forfeited 1,250,000 warrants as a result of his resignation. The Company granted 1,250,000 options to an advisor to the Company during the third quarter of 2008. The aggregate computed value of these options was $74,693 and this amount will be charged as expense over the two year vesting period.

The Company granted 6,000,000 options to its Chief Executive Officer on August 15, 2008. The aggregate computed value of these options was $172,485 and this amount will be charged as expense over the 1.4 year vesting period.

All of these issuances of equity securities in 2007, 2008 and 2009 were made in reliance upon exemptions from registration pursuant to Section 4(2) under the Securities Act of 1933, as amended.

ITEM 7. Management's Discussion and Analysis or Plan of Operation

Corporate Overview

Our Company is a pattern recognition company that uses advanced mathematical techniques to analyze large amounts of data to uncover patterns that might otherwise be undetectable. Our Company operates primarily in the emerging field of molecular diagnostics where such tools are critical to scientific discovery. Our primary business consists of licensing our intellectual property and working with prospective customers on the development of varied products that utilize pattern recognition tools. We also endeavor to develop our own product line of newly discovered biomarkers and pathways that include human genes and genetic variations, as well as gene, protein, and metabolite expression differences. In drug discovery, biomarkers can help elicit disease targets and pathways and validate mechanisms of drug action. They may also be pharmacodynamic indicators of drug activity, response and toxicity for use in clinical development.

We partnered and intend to continue partnering with clinical laboratories to commercialize our clinical diagnostic tests and to provide pharmaceutical and diagnostic companies with all aspects of diagnostic and drug discovery, from expert assessment of the clinical dilemma through proper selection and procurement of high quality specimens. We will then apply our proprietary analytical evaluation methods and state-of-the-art computational analysis to derive relevant and accurate clinical data, producing accurate biomarker and pathway discoveries, resulting in patent protection of our biomarker discoveries for future development.

Our business is based on the belief that in order to discover the most clinically relevant biomarkers, the computational component must begin at the inception of the clinical dilemma to be solved. This process includes several critical levels of decision-making - all of which are part of our business strategy. We intend to produce more relevant and predictable biomarkers for drug discovery so that new and better medicines and diagnostic markers can be developed for patients worldwide.

Operational Activities

The Company actively markets its technology and related developmental expertise to several prospects in the healthcare field, including some of the world's largest corporations in the pharmaceutical, biotech, and life sciences industries. Given the scope of some of these prospects, the sales cycle can be quite long, but management believes that these marketing efforts will produce favorable results.

The U.S. Patent and Trademark Office issued one new patent to the Company in April 2008, which covers the use of FGM technology for visualization of data patterns. In May 2008, the U.S. Patent and Trademark Office issued two new patents to the Company, one of which claims a method for analysis of any type of data that has a structure. The second patent covers additional feature selection techniques that can be used to successfully identify the most important pieces of information needed to solve complex pattern-recognition problems. The U.S. Patent and Trademark Office issued one new patent to the Company in June 2008, which covers the use of SVMs for computer-aided analysis of medical images, with particular applications in cytology and pathology. Also in June 2008, the Company was issued a patent in Japan, which covers recursive feature elimination (RFE) using SVMs for selection and ranking of the most important features within large datasets. In October 2008, an Indian patent was issued to the Company covering the use of SVMs for knowledge discovery from multiple data sets. Also that month, the U.S. Patent and Trademark Office issued a new patent to the Company covering a data mining platform with multiple SVM modules for use in analyzing bioinformatics data. With the issuance of these patents, the Company now holds the exclusive rights to 34 issued U.S. and foreign patents covering uses of SVM and FGM technology for discovery of knowledge from large data sets.

In July 2008, the Company and DCL Medical Laboratories LLC, a full-service clinical laboratory focused on women's health, entered into a development and license agreement for the collaborative development and commercialization of SVM-based computer assisted diagnostic tests for the independent detection of ovarian, cervical and endometrial cancers. Through the application of the advanced technology of pattern recognition, this new SVM-based system is intended to further improve the sensitivity of the Pap test and augment the recent improvements of computer guided screening that have already significantly improved detection rates. In addition, images and interpretative data from this new SVM-based system may now be transmitted electronically, thus allowing remote review and collaborative interpretation. Pursuant to the development and license agreement, HDC will own any developed intellectual property and DCL will have a sole use license relating to applications and new mathematical tools developed during the course of the development and license agreement. Dr. Hanbury, one of our directors, is currently President, CEO and a shareholder of DCL.

As we disclosed in our Form 10-K for the fiscal year ended December 31, 2007, we were in discussions regarding the licensing of and product development using SVMs and FGMs in diagnostic radiology, including mammography, PET scans, CT scans, MRI and other radiological images. In August 2008, we entered into a licensing agreement with Smart Personalized Medicine, LLC, a company founded by our former director, Dr. Richard Caruso. Under the terms of this agreement, we will work to develop a superior breast cancer prognostic test using our SVM technology in collaboration with a prominent cancer research hospital. In exchange for a license to use our SVM technology, we received a 15% equity position in Smart Personalized Medicine, LLC (which will remain undiluted until there is at least $5 million in investment from investors in Smart Personalized Medicine, LLC) and a per test royalty up to 7.5% based on net proceeds received from the sale of the new breast cancer prognostic test.

In August 2008, we entered into an agreement with Patent Profit International ("PPI"), a Silicon Valley-based patent brokerage firm, with the goal of marketing our patent portfolio and exclusive rights to SVM techniques and applications beyond biomarker discovery and the healthcare field, to prospective buyers/licensees in a wide range of technologies, including, but not limited to, information technology such as Internet browsers and search engines, digital photography, spam mail detection, oil exploration, homeland security, and the automotive industry. As a requirement of any potential sale of the patent portfolio, HDC expects to retain a royalty-free, worldwide, exclusive license, with the right to grant sublicenses, in the entire field of healthcare to enable our continued research, development, licensing and commercialization activities in diagnostic and prognostic areas such as prostate cancer, ovarian cancer, breast cancer, endometrial cancer, colon cancer, leukemia and other healthcare arenas and to retain ownership of patents relating solely to biomarker discovery and healthcare. PPI's marketing of our patent portfolio is ongoing.

In August 2008, the U.S. Patent and Trademark Office granted a patent to us covering the use of SVMs in computer-aided image analysis of digitized microscopic images of medical specimens. This patent focuses on a method and computer system for analyzing medical images generated during microscopic evaluation of cytology specimens and tissue samples. SVM-aided image analysis using this patented method could permit automated and rapid analysis of a series of sample images that are typically examined visually by a technologist or pathologist, greatly increasing the sensitivity and accuracy of tests.

On September 24, 2008, our previously-filed registration statement on Form S-1, which was required by the terms of the private placement we completed in September, 2007 (the "Private Placement") and first disclosed on Form 8-K, dated September 10, 2007, was declared effective. The registration statement covers 35,274,934 shares of our common stock if warrants with an exercise price of $0.14 per share are exercised and 35,274,934 shares of our common stock if warrants with an exercise price of $0.19 per share are exercised. The registration statement also covers 352,746 shares of our common stock that were issued to the investors in September pursuant to the terms of the Private Placement. All of the Private Placement warrants are currently outstanding. We will not receive any proceeds from any shares ultimately sold pursuant to the registration statement. However, we will receive cash upon the exercise of the warrants of $11,640,728.22 if all of the warrants are exercised. The exercise price of the warrants is fixed, subject to adjustments for stock splits or combinations.

On December 31, 2008, the U.S. Patent and Trademark Office issued a notice of allowance for the Company's pending patent application entitled "Data Mining Platform for Bioinformatics and Other Knowledge Discovery." This application includes claims covering a web-based data mining system that utilizes multiple support vector machine models to analyze combinations of biological data of many different types, for example, genomic, proteomic, and clinical data, from many different sources, including measurement instruments, clinical databases, on-line databases and on-line journals to produce ranked lists of genes or proteins that may be used as biomarkers. Once the above identified application and those applications described in Subsequent Events below issue as patents, which is expected to occur in mid-2009, the Company will own exclusive rights in 37 issued U.S. and foreign patents covering SVM and FGM technologies and their uses.

On July 31, 2007, we announced our alliance and licensing agreement with Clarient, Inc. for development of a new molecular diagnostic test for prostate cancer based on our discovered prostate cancer biomarker signature. Under the terms of that agreement, as amended, Clarient obtained a non-exclusive license to make, use and sell any Licensed Product in the Field of Use within the Licensed Territory with respect to both the commercial reference laboratory field and the academic and research fields. In exchange for the non-exclusive license, Clarient will pay the Company 10% of Clarient's net proceeds with respect to all licensed laboratory tests performed during the term of the license. During 2008, we and Clarient successfully completed all phases of the clinical trial process with the hope of achieving the statistical significance necessary to validate the ability to commercialize a test. Results from both the Phase I, Phase II and Phase III double-blinded clinical validation studies now completed at Clarient demonstrated a very high success rate for identifying the presence of Grade 3 or higher prostate cancer cells (clinically significant cancer), as well as normal BPH (benign prostatic hyperplasia) cells. On November 6, 2008, we announced that the RT-PCR assay for the four genes comprising the Company's recently commercialized gene-based molecular diagnostic test for prostate cancer, which is currently available at Clarient's Clinical Laboratory, can be successfully used in urine samples for gene testing. The study, completed in collaboration with a prominent cancer research hospital, demonstrated that the gene expression of all four genes comprising the molecular signature for clinically significant prostate cancer could be detected in urine samples spiked with as few as 50 prostate cancer cells. On January 13, 2009, we announced the commercial launch of the new gene expression test for prostate cancer, which will be available through Clarient's PATHSiTETM virtual reporting tool and accessible to the Company's entire pathology network. The new prostate cancer test will be performed at Clarient's Clinical Laboratory in Aliso Viejo, CA. HDC will receive 10% royalty on each test performed.

In September 2008 and December 2007, we received royalty proceeds related to our licensing agreement with Bruker Daltonics, which was originally announced in August, 2006. The royalties relate to Bruker Daltonics' sales of its ClinProTools™ clinical proteomics product line for its mass spectrometers, which contains HDC's SVM technology. Bruker launched its ClinProTools™ at approximately the same time as the license with HDC. While these royalty payments were relatively small, it offers the opportunity of future royalties for the life of the patents related to future sales of the Bruker product.

Management believes that our research agreement with a leading biotech company to develop an SVM-based diagnostic test to help interpret flow cell cytometry data for a particular medical condition has resulted in a successful proof of concept. These findings were presented during the first quarter of 2008 and the due diligence process has accelerated to confirm our findings for that particular condition and determine other applications within flow cytometry.

We are in discussions with a large international pharmaceutical company to develop a diagnostic test using our discovered biomarkers during a clinical trial for its new drug to treat BPH (enlarged prostate).

We have advanced our dialogue with several other important industry players in the healthcare field and, in certain situations, related to the field of molecular diagnostics, including a proposed project with one of the world's largest pharmaceutical companies, and other prospective partnership opportunities with additional companies and research institutions. We also continue to pursue development opportunities with our existing licensing customers.

In January 2007, SVM Capital, LLC was formed as a joint venture between HDC and Atlantic Alpha Strategies, LLC ("Atlantic Alpha") to explore and exploit the potential applicability of our SVM technology to quantitative investment management techniques. Atlantic Alpha has over thirty years of experience in commodity and futures trading. SVM Capital has made significant progress since the formation of the joint venture. The SVM technology is now working well with dynamic time series for S&P data accumulated over the past fifty-eight years as well as a limited pilot program of real-time trading activity. The latest SVM-derived models generated by SVM Capital have successfully outperformed the static *buy-and-hold* model both in increased returns as well as in reduced risk. Once the stability of these models is confirmed, SVM Capital intends to apply the models to a wide range of financial asset classes such as interest rates, currencies, metals and petroleum products. The joint venture partners plan to apply the investment model either in a single fund or a series of related funds. SVM Capital expects to charge a management fee and a performance fee related to its investment activities. Depending on the level of its success, this venture can be profitable given its reliance on cost effective use of computer technology and ready access to efficient trading platforms.

The Company has recorded revenue of $555,000 through December 31, 2008 and has deferred revenue yet to be recognized of $450,000 at December 31, 2008. In addition, the Company has received $150,000 in additional cash payments in 2009. The Company believes that the aggregate value created by its patent portfolio to date is therefore $1,055,000.

While we have a number of negotiations in process with potential licensing partners, there is a possibility that we will be unable to reach agreement with any party, that the negotiations continue but are not finalized, or that those that may be finalized do not provide the economic returns that we expect.

Subsequent Events

On March 31, 2009, we entered into the Purchase Agreement with certain individual investors for the private issuance of shares of our Series B Preferred Stock at an offering price of $ 0.08 per share (the "Private Placement") . We anticipate that, in connection with the Private Placement, we will receive up to $500,000 in cash in exchange for the issuance of up to 6,250,000 shares of Series B Preferred Stock. A copy of the form of Purchase Agreement is attached to this Annual Report on Form 10-K as Exhibit 10.15. The shares will be offered and sold in reliance upon exemptions from registration pursuant to Section 4(2) under the Securities Act of 1933, as amended, and Regulation D promulgated thereunder.

On January 30, 2009, we entered into a license agreement with Abbott Molecular Inc. ("Abbott"), pursuant to which the Company granted Abbott a worldwide, exclusive, royalty-bearing license for in-vitro diagnostic rights to develop and commercialize reagent test kits for the Company's prostate cancer molecular diagnostic tests in both biopsy tissue and urine. Upon regulatory approval, these individual test kits could be sold to national, regional and local clinical laboratories, as well as hospital, academic and physician laboratories around the world.

We also granted Abbott a worldwide, royalty bearing, co-exclusive license (co-exclusive with Quest) for developing and commercializing a "laboratory developed" urine based molecular diagnostic test for clinically significant prostate cancer which could be commercialized and sold directly to physicians for their patients in a clinical laboratory.

We also granted Abbott a worldwide, royalty bearing, co-exclusive license (co-exclusive with Clarient, Inc.) for developing and commercializing a "laboratory developed" biopsy tissue based molecular diagnostic test for clinically significant prostate cancer which could be commercialized and sold directly to physicians for their patients in a clinical laboratory.

In February 2009, Abbott paid to us a one-time initial signing fee of $100,000. In addition, with respect to the products subject to the license (the "Products"), Abbott will pay milestone payments to us upon achievement of the following events: $250,000 upon completion of Phase 1 and 2 as described in the FDA Submission Plan; $250,000 upon completion of Phase 3 and 4 as described in the FDA Submission Plan; $500,000 upon submission of either a 510(k) or Pre Market Approval ("PMA") submission to the FDA; and $500,000 upon the receipt of a written notification by the FDA of the approval of the applicable 510(k) or PMA submission. We will also receive royalty payments of 10% of Abbott's Net Sales for the Products with medical utility claims for use on prostate biopsy tissue samples, and 5% of Abbott's Net Sales for the Products with medical utility claims for use on urine samples. We will also receive royalty payments on the "Laboratory Developed Tests" equal to 10% of Abbott's Net Sales for the tests performed on prostate biopsy tissue and 5% of Abbott's Net Sales for tests performed on urine samples. In addition to the royalty payments, with respect to the urine based Products, Abbott will also pay us certain amounts upon the achievement of certain milestones as follows: after the sale of 50,000 tests in a calendar year, a milestone payment of $200,000; after a sale of 200,000 tests in a calendar year, a milestone payment of $750,000; and after a sale of 500,000 tests in a calendar year, a milestone payment of $1,500,000. "Net Sales" is equal to Abbott's gross revenue less 5% subject to adjustments as described in the license.

On January 30, 2009, we entered into a license agreement with Quest Diagnostics Incorporated ("Quest"), pursuant to which the Company granted to Quest a non-exclusive, royalty bearing license for developing and commercializing a "laboratory developed" urine based molecular diagnostic test for clinically significant prostate cancer which could be commercialized and sold by Quest's clinical laboratories directly to physicians for their patients. In consideration of granting the license to Quest, Quest paid a license fee to the Company and will pay running royalty payments, certain milestone payments, and development fees.

On February 20, 2009, the U.S. Patent and Trademark Office issued a notice of allowance of the claims of the Company's patent application for "Feature Selection Using Support Vector Machine Classifier." The claims of this application are directed to the Company's innovative SVM-based Recursive Feature Elimination (RFE) technique. Although the Company has already been granted a U.S. patent covering this important method, because of its widespread use in industry and research, alternative claims were submitted to expand the scope of coverage. The newest set of allowed claims is directed to both biological and non-biological applications of RFE- SVM.

On February 26, 2009, the U.S. Patent and Trademark Office issued a notice of allowance for the Company's pending patent application entitled "Kernels and Kernel Methods for Spectral Data." The allowed claims in the application are directed to a method for identification of patterns in mass spectrographic data for protein analysis using support vector machines. The method includes pre-processing steps that involve alignment of the spectra and feature selection to utilize only the most determinative peaks of the spectra for separation of the data. The claimed technique identifies protein biomarkers that may be useful for diagnosis, prognosis or monitoring of diseases, including cancer, psychiatric conditions and others. Once the above identified applications and the application identified in "Operational Activities" above issue as patents, which is expected to occur in mid-2009, the Company will own exclusive rights in 37 issued U.S. and foreign patents covering SVM and FGM technologies and their uses.

Year Ended December 31, 2008 Compared with Year Ended December 31, 2007

Revenue

For the year ended December 31, 2008, revenue was $65,731 compared with $57,905 in revenue for the year ended December 31, 2007. Revenue is recognized for licensing and development fees over the period earned and the revenue recognized in 2008 was primarily the amortization and recognition of prior deferred revenue items during the year. As of December 31, 2008, the Company had deferred revenue of $453,715. This deferred revenue includes $341,215 of cash received but not yet recognized as revenue and $112,500 in accounts receivable. Deferred revenue was $516,424 at December 31, 2007.

Cost of Revenue and Gross Margin

Cost of revenues for 2008 was $9,000. Cost of revenues includes all direct costs associated with the acquisition and development of patents and processes sold. All direct costs, primarily professional fees associated with licensing negotiations, are also included in cost of revenues. Cost of revenues was $21,300 in 2007.

Operating and Other Expenses

Amortization expense, which is the amortization of patents over their estimated useful lives, was $262,719 for the twelve months ended December 31, 2008 and 2007.

Professional and consulting fees totaled $748,748 for 2008 compared with $980,833 for 2007. These fees, related to legal, accounting, scientific and sundry activities, were reduced because of fewer outside services being required in the current year.

Compensation of $745,918 for the twelve months ended December 31, 2008 was slightly lower than the $783,721 reported for the comparable period of 2007 as compensation was held constant in an effort by the Company to control costs. The decrease was due to a smaller charge for employee stock, options and warrants.

Other general and administrative expenses increased from $459,064 in 2007 to $484,806 in 2008. This increase was due to additional costs related to the issuance of common stock.

Loss from Operations

The loss from operations for the twelve months ended December 31, 2008 was $2,185,460 compared to $2,449,737 for the prior year. The decreased loss was due to reduced expenses as previously discussed.

Other Income and Expense

Interest income was $39,160 for the twelve months ended December 31, 2008 compared to $39,614 in 2007. Decreased interest income was due to the higher average cash available to invest throughout 2008, offset by generally lower rates available.

A gain on the restructuring of accounts payable of $44,594 was recorded in 2007 to reflect common stock warrants issued in payment of liabilities. No corresponding event occurred in 2008.

The Company recognized a $5,000 loss related to its investment in SVM Capital LLC in 2007. No gain or loss relating to SVM Capital LLC was recorded in 2008.

The Company recorded an expense of approximately $42,000, which was associated with the settlement of litigation in 2007. No such charge applied to 2008.

Interest expense was $1,161 in 2008 compared with $286,398 in 2007. This decrease was due to the elimination of indebtedness during the third quarter of 2007.

Net Loss

The net loss for the twelve months ended December 31, 2008 was $2,147,461 compared to $2,698,927 for the twelve months ended December 31, 2007. The reduced loss was due to the overall reduction in expenses as previously discussed.

Net loss per share was $0.01 for the twelve months ended December 31, 2008 compared to a net loss per share of $0.02 for the prior year. The smaller net loss in 2008 and the increased number of average shares outstanding in 2008 favorably impacted the net loss per share.

Liquidity and Capital Resources

At December 31, 2008, the Company had $325,887 in available cash. Cash used by operating activities was $1,309,832. This was due primarily to the net loss of $2,147,461; however, net non-cash charges and adjustments of $837,629 favorably impacted the computation of the net cash used. Cash used by investment activities was $12,720 due to the acquisition of assets. Net cash provided by financing activities was zero because no such activities occurred.

On July 15, 2008, the Company received $112,500 due from Ciphergen Biosystems, Inc. in accordance with a patent license and settlement agreement.

The following table summarizes the due dates of our contractual obligations.

	Total	Less than 1 Year	1-3 Years
Deferred Compensation	54,500	54,500	—
Corporate Office Lease	31,338	20,892	10,446
Total	$ 85,838	$ 75,392	$ 10,446

The Company continues to incur maintenance fees for its patent portfolio and expects those fees to be approximately $29,500 during 2009.

In the first quarter of 2008, the Company fully vested a 1,500,000 warrant grant for a retiring director by accelerating the vesting of 375,000 warrants exercisable at $0.13. A charge of $44,438 was recorded as directors' fees.

In June 2008, a warrant to purchase 1,500,000 shares of Company common stock at an exercise price of $0.08, vesting over three years and expiring in six years, was granted by the Company to a new director. The value of $85,200 will be charged as directors' fees over the vesting period.

The Company granted 1,250,000 options to an advisor to the Company during the third quarter of 2008, at an exercise price of $0.08, vesting over two years and expiring in five years. The value of these options was $74,693 and this amount will be charged as expense over the two year vesting period.

Also during the third quarter of 2008, the Company granted 6,000,000 options to its Chief Executive Officer. The options have an exercise price of $0.08, with an aggregate value of $172,485 that will be charged to expense over the 1.4 year vesting period. The vesting period of the options is conditioned upon the achievement of certain service and performance goals.

In August 2008, the Company issued 515,384 shares of common stock to certain investors pursuant to the terms of the Securities Purchase Agreement dated August 15, 2007. A charge of $0.07 per share or $36,076 was recorded. The Company did not issue any other shares during the twelve months ended December 31, 2008.

The Company has relied primarily on equity funding plus debt financing for liquidity. The Company produced sales, licensing, and developmental revenue since 2005 and must continue to do so in order to generate sufficient cash to continue operations. The Company's plan to have sufficient cash to support operations is comprised of generating revenue through licensing its significant patent portfolio, providing services related to those patents, and obtaining additional equity or debt financing. The Company has been and continues to be in meaningful discussions with a variety of parties, which if successful, may result in significant revenue. The Company has implemented a cash conservation plan that includes a reduction in consulting payments, and a heightened scrutiny of all potential expenditures.

Should it prove necessary, the Company may also consider such alternatives as raising additional equity through private placements and/or debt offerings. Although this raises doubt with respect to our ability to operate as a going concern, the Company believes that it has sufficient capability to operate through the next twelve months, if the Company is able to achieve milestones contained in the Abbott and Quest license agreement and we complete the sale of our patent portfolio.

Critical Accounting Policies, Estimates and Assumptions

We consider our accounting policies related to revenue recognition, impairment of intangible assets and stock based compensation to be critical accounting policies. A number of significant estimates, assumptions, and judgments are inherent in our determination of when to recognize revenue, how to evaluate our intangible assets, and stock-based compensation expense. These estimates, assumptions and judgments include deciding whether the elements required to recognize revenue from a particular arrangement are present, estimating the fair value of an intangible asset, which represents the future undiscounted cash flows to be derived from the intangible asset, and estimating the useful life and volatility of stock awards granted. We base our estimates and judgments on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ materially from these estimates.

Valuation of intangible and other long-lived assets.

We assess the carrying value of intangible and other long-lived assets at least annually, which requires us to make assumptions and judgments regarding the future cash flows related to these assets. The assets are considered to be impaired if we determine that the carrying value may not be recoverable based upon our assessment of the following events or changes in circumstances such as:

- the asset's ability to continue to generate income from operations and positive cash flow in future periods;
- loss of legal ownership or title to the asset;
- significant changes in our strategic business objectives and utilization of the asset(s); and
- the impact of significant negative industry or economic trends.

If the assets are considered to be impaired, the impairment we recognize is the amount by which the carrying value of the assets exceeds the fair value of the assets. In addition, we base the useful lives and related amortization or depreciation expense on our estimate of the period that the assets will generate revenues or otherwise be used by us. We also periodically review the lives assigned to our intangible assets to ensure that our initial estimates do not exceed any revised estimated periods from which we expect to realize cash flows from the technologies. If a change were to occur in any of the above-mentioned factors or estimates, the likelihood of a material change in our reported results would increase.

Revenue Recognition

We recognize revenue principally from license and royalty fees for intellectual property and from development agreements with research partners. Each element of revenue recognition requires a certain amount of judgment to determine if the following criteria have been met: (i) persuasive evidence of an arrangement exists; (ii) delivery has occurred or services have been rendered; (iii) the seller's price to the buyer is fixed or determinable; (iv) collectability is reasonably assured, and (v) both title and the risks and rewards of ownership are transferred to the buyer. We are required to make more significant estimates involving our recognition of revenue from license and royalty fees. Our license and royalty fees revenue estimates depend upon our interpretation of the specific terms of each individual arrangement and our judgment to determine if the arrangement has more than one deliverable and how each of these deliverables should be measured and allocated to revenue. In addition, we have to make significant estimates about the useful life of the technology transferred to determine when the risk and rewards of ownership have transferred to the buyer to decide the period of time to recognize revenue. In certain circumstances we are required to make judgments about the reliability of third party sales information and recognition of royalty revenue before actual cash payments for these royalties have been received.

Share-Based Compensation

Share-based compensation expense is significant to our financial position and results of operations, even though no cash is used for such expense. In determining the period expense associated with unvested options, we estimate the fair value of each option at the date of grant. We believe it is important for investors to be aware of the high degree of subjectivity involved when using option pricing models to estimate share-based compensation under SFAS No. 123R. The determination of the fair value of share-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of complex and subjective variables. These variables include, but are not limited to, our valuation methodology, the expected term, expected stock price volatility over the term of the awards, the risk-free interest rate, expected dividends and pre-vesting forfeitures. If any one of these factors changes and we employ different assumptions in the application of SFAS No. 123R in future periods, the compensation expense that we record under SFAS No. 123R will differ significantly from what we have recorded in the current period.

For share-based awards issued during the year ended December 31, 2008, we estimated the expected term by considering various factors including the vesting period of options granted, employees' historical exercise and post-employment termination behavior; however, due to the limited history of our Company, such data is limited. We estimated the expected life will be substantially longer than the vesting period given the start-up nature of our operations and accordingly have used the contractual life as the expected term. Our estimated volatility was derived using our historical stock price volatility. We have never declared or paid any cash dividends on our common stock and currently do not anticipate paying such cash dividends. The risk-free interest rate is based upon U.S. Treasury securities with remaining terms similar to the expected term of the share-based awards.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements that provide financing, liquidity, market or credit risk support or involve leasing, hedging or research and development services for our business or other similar arrangements that may expose us to liability that is not expressly reflected in the financial statements.

ITEM 8. FINANCIAL STATEMENTS.

Financial statements appear beginning on page F1 of this Report.

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

We have had no disagreements with our certifying accountants on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure.

ITEM 9A(T). DISCLOSURE CONTROLS AND PROCEDURES.

As of the end of the period covered by this report (the "Evaluation Date"), we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer, who is also serving as our Principal Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based upon this evaluation, our Chief Executive Officer concluded that, as of the Evaluation Date, our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in the reports that are filed or submitted under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified by the Securities and Exchange Commission's rules and forms and that our disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management including our Chief Executive Officer, as appropriate to allow timely decisions regarding required disclosure.

Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that the Company's disclosure controls and procedures will detect or uncover every situation involving the failure of persons within the company to disclose material information otherwise required to be set forth in the Company's periodic reports.

The Company's management is also responsible for establishing and maintaining adequate internal control over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. The Company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. Internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of the financial statements in accordance with U.S. generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, 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.

In connection with the preparation of our annual financial statements, management has undertaken an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2008. Management's assessment included an evaluation of the design of our internal control over financial reporting and testing of the operational effectiveness of those controls.

Based on this evaluation, management has concluded that our internal control over financial reporting was not effective as of December 31, 2008. Our Chief Executive Officer, who is also serving as our Principal Financial Officer, concluded that we have material weaknesses in our internal control over financial reporting because we do not have an adequate segregation of duties due to a limited number of employees among whom duties can be allocated. The lack of segregation of duties is due to the limited nature and resources of the Company.

This annual report does not include an attestation report of the Company's registered public accounting firm regarding internal controls over financial reporting. Management's report 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 only management's report in this annual report.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS, CORPORATE GOVERNANCE, COMPLIANCE WITH SECTION 16(a) OF THE EXCHANGE ACT.

Our executive officers, directors and significant employees are:

Name	Age	Position
Stephen D. Barnhill, M.D.	50	Chief Executive Officer and Chairman of the Board
Hong Zhang, Ph.D.	47	Senior Vice President
Michael Hanbury	45	Director

Stephen D. Barnhill, M.D., is currently our Chief Executive Officer and Chairman of the Board. He has been a member of the Board of Directors since November 2003. He is a physician trained in laboratory medicine and clinical pathology. He has developed and used artificial intelligence, pattern-recognition, and computational techniques in Medicine, Genomics, Proteomics, Diagnostics and Drug Discovery.

Dr. Barnhill is or has been a Fellow of the American College of Physician Inventors, the American College of International Physicians, the American Medical Association, the American College of Physician Executives, the American Association of Artificial Intelligence, the American College of Managed Care Medicine, the Association of Clinical Scientists, the American Society of Contemporary Medicine and Surgery, the American Society of Law, Medicine and Ethics, the Southern Medical Society, the American Federation for Clinical Research, and the National Federation of Catholic Physicians.

Dr. Barnhill founded the Barnhill Clinical Laboratories in 1988 and served as Chairman, CEO, President and Medical Director. This laboratory was later acquired by Corning-Metpath in 1989 and after the acquisition he served as Medical Director of this clinical laboratory until 1992. This clinical laboratory, now owned by Quest Diagnostics, continues to be the largest and busiest clinical laboratory in the Savannah, Georgia area.

In 1992, Dr. Barnhill founded National Medical Specialty Laboratories and served as Chairman, CEO, President, and Medical Director. This research laboratory was founded to utilize pattern-recognition mathematics and artificial intelligence techniques in cancer diagnosis. Dr. Barnhill is an inventor on the very first patents issued by the United States Patent and Trademark Office for the use of neural networks in medicine. This company was acquired by Horus Therapeutics, a New York based pharmaceutical company. Dr. Barnhill served as Executive Vice-President and Chairman of the Scientific Advisory Board for Horus Therapeutics until 1998. Johnson & Johnson later acquired the Horus patents invented by Dr. Barnhill.

In 1999, Dr. Barnhill founded and served as Chairman, President and CEO of Barnhill BioInformatics, Inc. Barnhill BioInformatics, Inc. later became Barnhill Genomics, Inc. and BioWulf Technologies, LLC and raised over $13.5 million in private placement funding. The primary focus of these companies was to utilize the next generation of artificial intelligence and pattern-recognition techniques, known as support vector machines, to identify genes that cause cancer. Dr. Barnhill is the sole inventor on the very first patents issued by the United States Patent and Trademark Office for the use of support vector machines in medicine. From the summer of 2000 until he organized The Barnhill Group L.L.C. in the summer of 2003, Dr. Barnhill was not engaged in any professional activities as the result of a non-compete agreement signed by Dr. Barnhill when he left the employment of Barnhill Genomics, Inc.

Hong Zhang, Ph.D. is our Senior Vice President, Computational Medicine. As visiting faculty at Johns Hopkins University, Dr. Zhang lectured at the Center for Biomarker Discovery on Bioinformatics: Peak Detection Methods for Mass Spectral Data. Currently a Yamacraw Associate Professor at Armstrong Atlantic University, Dr. Zhang was the Vice President and CIO for a neural network and computer assisted medical diagnostic systems company that employs neural network and mathematical/statistical preprocessing techniques. In this position, Dr. Zhang was involved in digital image processing and pattern recognition for medical image processing as well as software design and programming for support vector machine applications. Dr. Zhang was a professor in the Department of Mathematical Sciences at Purdue University from 1989 to 1996. He has held numerous academic positions, including Adjunct Associate Professor, Associate Professor with Tenure, and Assistant Professor. He was a visiting Associate Professor in 1995 in the Department of Biometry at the Medical University of South Carolina.

Throughout his academic career, Dr. Zhang has consulted on many software and analytical development projects for Union Switch and Signal, Inc., General Electric Company, and the Department of Pharmacology at the University of Pittsburgh. Dr. Zhang has published numerous articles on the use of neural networks in the detection of cancers. He has been published in more than twenty medical and technical journals. Dr. Zhang received a Ph.D., Mathematics at the University of Pittsburgh, 1989, M.A., Mathematics, University of Pittsburgh, 1986, M.S.E.E., Electrical Engineering, University of Pittsburgh, 1984, B.S., Computer Science, Fudan University, 1982. Dr. Zhang's numerous awards and honors include: National Cancer Institute SBIR Grant, 1999, 2000; Purdue Research Foundation Summer Faculty Grant, 1993; IPFW Summer Research Grant, 1992; Andrew Mellon Fellowship, 1986-1987; Andrew Mellon Fellowship, 1985-1986; First Place, Fudan University Mathematics Competition, 1979

Michael Hanbury is a member of the Board of Directors and has been a director since June 27, 2008. Dr. Hanbury has over 25 years professional and associated corporate management experience in medical diagnostic and clinical laboratory sectors with a diverse experience base including successful tenures in research and direct patient care in nationally renowned academic medical centers; operations management in public and private clinical laboratories; and concept-to-market design, development, customer support, engineering, compliance and regulatory management in *in-vitro* diagnostic manufacturing companies. In addition to substantial academic research experience, he has directed all US operations for an international *in-vitro* diagnostics company and managed regulatory affairs for Roche Molecular Systems, where his efforts were instrumental in obtaining the first FDA clearances for some of the most widely used commercial molecular diagnostic products on the market. Before its acquisition by Quest Diagnostics, he was Chief Operating Officer of Unilab Corporation, formerly the third largest reference laboratory in the country operating 51 laboratories with revenue exceeding $600 million annually. He also remains operating Principal at HCC Consulting providing operating and regulatory services to a number of recognized clinical laboratories and IVD clients and he continues to serve on the Board of Alexeter Technologies. Dr. Hanbury is currently President, CEO and a shareholder of DCL Medical Laboratories in Indianapolis, Indiana. Dr. Hanbury completed his undergraduate studies at the University of Virginia in Biochemistry and Economics and graduate studies at the Medical College of Virginia where he also completed his clinical training. He also holds Masters Degrees in Clinical Chemistry and a MBA from ODU/Eastern Virginia Medical School and the University of Michigan, respectively.

The directors named above will serve until the next annual meeting of our stockholders. Absent an employment agreement, officers hold their positions at the pleasure of the Board of Directors.

Audit Committee

We do not have a separately designated standing audit committee. The entire board of directors is acting as our audit committee, and no individual on our Board of Directors possesses all of the attributes of an "audit committee financial expert." Given the development stage and size of the Company and the difficulty in attracting additional directors, the Board does not have an audit committee financial expert. In forming our Board of Directors, we sought out individuals who would be able to guide our operations based on their business experience, both past and present, or their education. Responsibility for our operations is centralized within management.

Shareholder Nomination of Candidates for Board of Directors

Nominations of persons for election to the Board of Directors may be made by any shareholder who complies with the notice provisions set forth in Section 3.8 of the Bylaws, which provides that a shareholder's notice must be delivered or mailed and received at the principal executive office of the Company not less than thirty days before the date of the meeting; provided, however, that in the event that less than forty days' notice or prior public disclosure of the date is given, notice by the shareholder to be timely must be so received not later than the close of business on the tenth day following the day on which the public announcement of the meeting date was made. Such shareholder's notice shall set forth (i) as to each person whom the shareholder proposes to nominate for election or reelection as a Director, all information relating to such person as required to be disclosed in solicitation of proxies for election of Directors made in compliance with Regulation 14A under the Securities and Exchange Act of 1934, as amended (including such person's written consent to being named in a proxy statement as a nominee and to serving as a Director if elected); and (ii) as to the shareholder giving the notice (A) the name and address, as they appear on the books of the Company, of such shareholder and (B) the class and number of shares of the Company's capital stock that are beneficially owned by such shareholder. At the request of the Board of Directors, any person nominated by the Board of Directors for election as a Director shall furnish to the Secretary of the Company that information required to be set forth in a shareholder's notice of nomination which pertains to the nominee. No person shall be eligible for election as a Director of the Company unless nominated in accordance with the provisions of Section 3.8 of the Company's Bylaws.

Code of Ethics

The Company has adopted a Code of Ethics applicable to its Chief Executive Officer and Principal Financial Officer. This Code of Ethics is posted on our website at www.HealthDiscoveryCorp.com. These codes are also available without charge upon request directed to Investor Relations, Health Discovery Corporation, 2 East Bryan Street, Suite #601, Savannah, GA 31401. The Company intends to disclose amendments or waivers of the Code of Ethics required to be disclosed by posting such information on its website.

ITEM 11. EXECUTIVE COMPENSATION.

Summary Compensation Table

The following table sets forth various elements of compensation for our Named Executive Officers for each of the last two calendar years:

Name and Principal Position	Year	Salary ($)	Bonus ($)	Option Awards ($)	All Other Compensation ($)	Total
Stephen D. Barnhill, M.D.	2008	$300,000	$50,000	$52,587[1]	$ 38,291[2]	$440,878
Chief Executive Officer	2007	$196,875	$50,000	—	$ 3,719[2]	$250,594
Daniel R. Furth	2008	$ 54,000	—	38,615	$ 7,443[3]	$100,058
Executive Vice President	2007	$ 91,500	—	92,676	$ 5,969[2]	$190,145

(1) The options vest according to the following vesting schedule: 1,000,000 vest on August 15, 2008 and upon the Company's common stock's closing price for any 20 consecutive trading days achieving a minimum share price of $0.10; 2,000,000 vest on January 1, 2009 and upon the Company's common stock's closing price for any 20 consecutive trading days achieving a minimum share price of $0.15; 2,000,000 vest on January 1, 2010 and upon the Company's common stock's closing price for any 20 consecutive trading days achieving a minimum share price of $0.20; and 1,000,000 vest on January 1, 2010 and upon the Company's common stock's closing price for any 20 consecutive trading days achieving a minimum share price of $0.25. The fair value of each option granted was $0.03 and was estimated on the date of grant using a probability weighted fair value model, similar to a lattice valuation model, with the following assumptions: dividend yield at 0%, risk-free interest rate of 3.50%, an expected life of 6 years, and volatility of 106.52%. The aggregate computed value of these options was $172,485, and this amount will be charged as expense over the 1.4 year vesting period.

(2) Represents health insurance premiums and reimbursed healthcare costs.

(3) Includes health insurance premiums and consulting payments.

Outstanding Equity Awards at Fiscal Year-end

	Option Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price	Option Expiration Date
Stephen Barnhill M.D.	0	6,000,000 (1)	$0.08	August 15, 2018

(1) The options vest according to the following vesting schedule: 1,000,000 vest on August 15, 2008 and upon the Company's common stock's closing price for any 20 consecutive trading days achieving a minimum share price of $0.10; 2,000,000 vest on January 1, 2009 and upon the Company's common stock's closing price for any 20 consecutive trading days achieving a minimum share price of $0.15; 2,000,000 vest on January 1, 2010 and upon the Company's common stock's closing price for any 20 consecutive trading days achieving a minimum share price of $0.20; and 1,000,000 vest on January 1, 2010 and upon the Company's common stock's closing price for any 20 consecutive trading days achieving a minimum share price of $0.25.

Director Compensation

Outside directors are paid $1.00 each year. Each outside director is awarded options to purchase 1,500,000 shares of Company common stock, which vest over three years and expire in six years.

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)	Total ($)
Stephen D. Barnhill, M.D.	$0.00	$ 0.00	$ 0.00
Michael Hanbury (1)	$1.00	$ 14,200	$ 14,201
William F. Quirk, Jr. (2)	$1.00	$ 29,625	$ 29,626
William M. Goldstein (3)	$1.00	$ 59,250	$ 59,251
Richard E. Caruso (4)	$1.00	$ 31,981	$ 31,982

(1) 1,500,000 warrants remain outstanding as of December 31, 2008.

(2) 1,000,000 warrants remain outstanding as of December 31, 2008.

(3) 1,500,000 warrants remain outstanding as of December 31, 2008.

(4) 250,000 warrants and 1,250,000 options remain outstanding as of December 31, 2008.

Michael Hanbury was awarded warrants to purchase 1,500,000 shares of Company common stock in 2008, which vest over three years and expire in six years. These warrants have an exercise price of $0.08, and will be charged as directors' fees over the vesting period. In August 2008, the Company awarded 1,250,000 options to Dr. Richard Caruso which vest over 2 years and expire in 4 years. The vesting of the options is conditioned upon Dr. Caruso's continued service as an advisor to the Company.

Employment Agreements

On August 15, 2008, the Company entered into a new employment agreement with Dr. Stephen Barnhill for his employment as Chief Executive Officer. Dr. Barnhill's existing employment agreement was scheduled to expire by its terms on September 15, 2008. The employment agreement has a term of two years. Under the terms of the employment agreement, Dr. Barnhill received a one-time retention signing bonus of $50,000 and his annual base salary is $300,000. Dr. Barnhill will also be eligible to receive a cash bonus equal to 10% of the Company's revenue received during the term of the employment agreement; but such cash bonus cannot exceed 300% of his annual base salary. Dr. Barnhill was also granted an option to purchase an aggregate of 6,000,000 shares of the Company's common stock at an exercise price of $0.08; the options vest over a two year period, assuming a minimum share price. Dr. Barnhill is eligible to be reimbursed monthly for reasonable and necessary business expenses and to receive health insurance benefits and other benefits maintained by us for our executives. Dr. Barnhill will be entitled to twenty paid vacation days during the calendar year. If Dr. Barnhill's employment is terminated for Cause, as that term is defined in the employment agreement, or if Dr. Barnhill terminates the employment agreement for Good Reason, as that term is defined in the employment agreement, then Dr. Barnhill will receive as severance the amount of his base salary for the remainder of the term and an amount equal to the actual cost of ninety days of his COBRA premium payments. If the employment agreement is terminated for any other reason than for Cause or for Good Reason, Dr. Barnhill is not eligible to receive severance. The employment agreement also generally provides that Dr. Barnhill will keep confidential information confidential and that he will not compete with us in our business nor solicit our customers or employees for a period of 12 months following termination of employment.

In 2007, the Company awarded Dr. Barnhill a bonus in the gross amount of $50,000 in recognition of his extraordinary efforts on behalf of the Company.

We entered into an employment agreement with Mr. Daniel R. Furth effective November 18, 2005 regarding Mr. Furth's employment as Executive Vice President. The term of the employment is for three years, with compensation of $60,000, reviewed each year for potential increase. Effective as of September 10, 2007, Mr. Furth's annual salary was increased to $108,000. Mr. Furth received options to acquire 1,500,000 shares of our common stock. Mr. Furth is eligible to be reimbursed monthly for reasonable and necessary business expenses and for other benefits maintained by us. If the Company terminates the employment agreement for cause or if the agreement is terminated by Mr. Furth without cause, Mr. Furth will be entitled to receive his salary only through the date such termination is effective. If Mr. Furth terminates the employment agreement for cause or, if the employment agreement is terminated without cause, he will be entitled to receive his salary for a period of three months from the date such termination is effective. The agreement also generally provides that Mr. Furth will keep confidential information confidential and that he will not compete with us in our business nor solicit our customers or employees for a period of 12 months following termination of employment. On June 30, 2008, Mr. Furth notified the Company of his resignation. As a result of his resignation, his employment agreement was terminated.

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

The following table sets forth information concerning the beneficial ownership of our common stock as of March 24, 2009 by (i) each of our directors, (ii) each of our executive officers, (iii) each person who is known to us to be the beneficial owner of more than five percent of our common stock, and (iv) all of our executive officers and directors as a group. At March 24, 2009, there were 169,522,590 shares of common stock outstanding and 7,437,184 shares of Series A Preferred Stock outstanding. At March 31, 2009, there were 2,500,000 shares of Series B Preferred Stock outstanding.

Name and Address of Beneficial Owner	Amount and Nature of Beneficial Owner	Percent of Class [1]
Dr. Stephen D. Barnhill Chairman of the Board, Chief Executive Officer and Chief Medical Officer, Director 2 East Bryan Street, Suite #601 Savannah, GA 31401	22,181,522 [2]	13.08%
Michael Hanbury Director Suite 200 9550 Zionville Road Indianapolis IN 46268	250,000 [3]	0.15%
William Quirk 2 East Bryan Street, Suite #601 Savannah, GA 31401	68,624,302 [4]	32.21%
Dr. Richard Caruso 795 East Lancaster Avenue, Suite #200 Villanova, PA 19085	10,156,250 [5]	5.75%
Micro Capital Fund, LP 623 Fifth Avenue Suite 2502 New York, NY 10022	13,733,124 [6]	7.69%
Prime Mover Capital Partners 767 Third Avenue New York, NY 10007	20,693,750 [7]	11.29%
Curtis G. Anderson 44 Delegal Road Savannah, GA 31411	14,248,915 [8]	7.96%
Stephen M. Grosberg 201 East 20th Street, #8C New York, NY 10010	12,040,000 [9]	6.78%
Frank T. Nickell 320 Park Ave. 24th Floor New York, NY 10027	9,406,250 [10]	5.35%
All executive officers and directors as a group (2 persons)	22,431,522	13.21%

(1) The percentage assumes the exercise by the stockholder or group named in each row of all options or warrants for the purchase of our common stock held by such stockholder or group and exercisable within 60 days as of March 24, 2009.

(2) These shares are held by The Barnhill Group LLC, which is wholly owned by Dr. Barnhill.

(3) Consists of warrants vesting within 60 days.

(4) Includes 43,527,776 vested warrants.

(5) Consists of 3,156,250 shares and 6,250,000 vested warrants held by Athena Venture Partners LP, a limited partnership in which Dr. Caruso's children are limited partners, 250,000 vested warrants and 500,000 vested options held individually.

(6) Includes 9,125,000 vested warrants. Includes beneficial ownership of MicroCapital Fund Ltd., which includes 2,281,250 vested warrants.

(7) Includes 13,750,000 vested warrants.

(8) Includes 9,467,718 vested warrants.

(9) Includes 8,000,000 vested warrants.

(10) Includes 6,250,000 vested warrants.

For Equity Compensation Plan Information Table, see Item 5.

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

In May 2008, we entered into a letter of intent with DCL Medical Laboratories LLC, a full-service clinical reference laboratory focused on women's health, for the joint development of an SVM-based computer assisted diagnostic test for the analysis of cervical cells. Through the application of the advancing technology of pattern recognition, this new SVM-based system is intended to further improve the sensitivity of the Pap test and augment the recent improvements in computer guided screening that have already significantly improved detection rates. In addition, images and interpretative data from this new SVM-based system may now be transmitted electronically, thus allowing remote review and collaborative interpretation. In July 2008, the Company and DCL Medical Laboratories, LLC entered into a Development and License Agreement for the collaborative development and commercialization of SVM-based computer assisted diagnostic tests for the independent detection of ovarian, cervical and endometrial cancers, which expands the scope of the joint development efforts. Pursuant to the Development and License Agreement, HDC will own any developed intellectual property and DCL Medical Laboratories will have a sole use license relating to applications and new mathematical tools developed during the course of the Development and License Agreement. In connection with the Development and License Agreement, HDC will receive 50% of the profits from screening services performed by DCL Medical Laboratories. If HDC commercializes an application and offers services as permitted by the Development and License Agreement, HDC will pay DCL Medical Laboratories 25% of HDC's profits. Dr. Hanbury, one of the Company's directors, is currently President, CEO and a shareholder of DCL Medical Laboratories.

In August 2008, we entered into a licensing agreement with Smart Personalized Medicine, LLC, a company founded by our former director, Dr. Richard Caruso. Under the terms of this agreement, we will work to develop a superior breast cancer prognostic test using our SVM technology in collaboration with a prominent cancer research hospital. In exchange for a license to use our SVM technology, we will receive a 15% equity position in Smart Personalized Medicine, LLC (which will remain undiluted until there is at least $5 million in investment from investors in Smart Personalized Medicine, LLC) and a per test royalty up to 7.5% based on net proceeds received from the sale of the new breast cancer prognostic test.

On August 14, 2008, the Company and Dr. Richard Caruso entered into an Amendment to Stock Purchase Warrant. The Amendment permits Dr. Caruso's warrants, which were previously granted to Dr. Caruso in 2007 for his services as a director, to continue to vest so long as he serves the Company as an advisor. The amendment was subsequently rescinded by the Company and Dr. Caruso. The Company granted 1,250,000 options to Dr. Caruso during the third quarter of 2008. These options will continue to vest so long as Dr. Caruso is an advisor to the Company.

The Company has adopted the independence standards promulgated by the New York Stock Exchange and has made a determination that, as of March 27, 2009, the following directors are independent according to those standards: Michael Hanbury.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The following table sets forth the fees billed by Hancock Askew & Co. LLP for 2008 and 2007.

	2008	2007
Audit Fees	$86,000	$88,570
Audit-Related Fees	—	—
Tax Fees	—	—
Sub-Total	$86,000	$88,570
All Other Fees	$4,083	—
Total Fees	$90,083	$88,570

Audit Fees. This category includes aggregate fees billed for professional services rendered for the audit of the Company's annual financial statements for the year ended December 31, 2008 and 2007, review for the annual report on Form 10-K and for the limited reviews of quarterly condensed financial statements (Forms 10-Q) included in periodic reports filed with the SEC during 2008 and 2007, including out of pocket expenses.

Audit-Related Fees. This category includes fees billed for professional services associated with consultation concerning financial accounting and reporting standards. No such fees were billed in 2008 or 2007.

Tax Fees. This category includes the aggregate fees billed or to be billed for tax services for the years ended December 31, 2008 and 2007. No such fees were billed in 2008 or 2007.

All Other Fees. This category includes the aggregate fees billed for all other services, exclusive of the fees disclosed above, rendered to the Company.

The services provided by the independent auditors were pre-approved by the Board of Directors of the Company to the extent required under applicable law. The Board of Directors of the Company requires pre-approval of all audit and allowable non-audit services.

ITEM 15. EXHIBITS.

The following exhibits are attached hereto or incorporated by reference herein (numbered to correspond to Item 601(a) of Regulation S-B, as promulgated by the Securities and Exchange Commission) and are filed as part of this Form 10-K:

3.1 Articles of Incorporation. Registrant incorporates by reference Exhibit 3.1 to Form 8-K filed July 18, 2007.

3.1(a) Articles of Amendment to Articles of Incorporation. Registrant incorporates by reference Exhibit 99.1 to Form 8-K filed October 10, 2007.

3.1(b) Articles of Amendment to Articles of Incorporation. Filed herewith.

3.2 By-Laws. Registrant incorporates by reference Exhibit 3.2 to Form 8-K filed July 18, 2007.

4.1 Copy of Specimen Certificate for shares of common stock. Registrant incorporates by reference Exhibit 4.1 to Registration Statement on Form SB-2, filed June 4, 2001.

4.1(a) Copy of Specimen Certificate for shares of common stock. Registrant incorporates by reference Exhibit 4.1 (b) to Form 10-KSB, filed March 30, 2004.

4.1(b) Copy of Specimen Certificate for shares of Series A Preferred Stock. Registrant incorporates by reference Exhibit 4.1(b) to Form 10-K filed March 31, 2008.

4.1(c) Copy of Specimen Certificate for shares of Series B Preferred Stock. Filed herewith.

10.1 Employment Agreement between the Company and Stephen Barnhill dated August 15, 2008. Registrant incorporates by reference Exhibit 10.2 to Form 8-K filed August 18, 2008. *

10.2 Form of Warrant. Registrant incorporates by reference Exhibit 10.7 to Form 10-KSB, filed April 19, 2005.

10.3 Form of Warrant. Registrant incorporates by reference Exhibit 10.9 to Form 10-KSB, filed April 19, 2005.

10.4 Employment Agreement with Daniel R. Furth, dated as of December 5, 2005. Registrant incorporates by reference Exhibit 10.11 to Form SB-2/A, filed December 14, 2005. *

10.4(a) First Amendment to Employment Agreement with Daniel R. Furth. Registrant incorporates by reference Exhibit 10.4(a) to Form 10-QSB filed August 16, 2007. *

10.4(b) Second Amendment to Employment Agreement with Daniel R. Furth. Registrant incorporates by reference Exhibit 99.2 to Form 8-K filed September 10, 2007. *

10.5 Warrant Agreement by and between Registrant and William F. Quirk, Jr., dated as of September 1, 2006. Registrant incorporates by reference Exhibit 99.2 to Form 8-K, filed September 5, 2006.

10.6 License Agreement between the Company and Clarient, Inc. dated July 31, 2007. Registrant incorporates by reference Exhibit 10.1 to Form 8-K filed August 3, 2007.

10.6(a) Amendment to License Agreement between Health Discovery Corporation and Clarient, Inc., dated January 13, 2009. Registrant incorporates by reference Exhibit 10.2 to Form 8-K filed February 5, 2009.

10.7 Patent License and Settlement Agreement with Ciphergen Biosystems, Inc. Registrant incorporates by reference Exhibit 10.10 to Form 10-QSB filed August 16, 2007.

10.8 Securities Purchase Agreement by and among the Company, the Cash Purchasers and the Lender Purchasers. Registrant incorporates by reference Exhibit 10.11 to Form 10-QSB filed August 16, 2007.

10.9 Form of Warrant to Cash and Lender Purchasers. Registrant incorporates by reference Exhibit 10.14 to Form 10-K filed March 31, 2008.

10.10 Amendment to Stock Purchase Warrant with Dr. Richard Caruso. Registrant incorporates by reference Exhibit 10.1 to Form 8-K filed August 18, 2008. *

10.11 Option Award to Stephen D. Barnhill, M.D. dated August 15, 2008. Registrant incorporates by reference Exhibit 10.3 to Form 8-K filed August 18, 2008. *

10.12 License and Development Agreement by and between the Company and DCL Medical Laboratories, LLC dated July 14, 2008. Registrant incorporates by reference Exhibit 10.17 to Registration Statement on Form S-1 filed September 19, 2008.

10.13 License Agreement between Health Discovery Corporation and Abbott Molecular Inc., dated January 30, 2009. Filed herewith. **

10.14 License Agreement between Health Discovery Corporation and Quest Diagnostics Incorporated, dated January 30, 2009. Registrant incorporates by reference Exhibit 10.3 to Form 8-K filed February 5, 2009. **

10.15 Form of Securities Purchase Agreement. Filed herewith.

16.1 Letter from Porter Keadle Moore LLP regarding change in certifying accountant. Registrant incorporates by reference Exhibit 16.1 to Form 8-K, filed September 27, 2006.

21.1 Subsidiaries of the Registrant. Filed herewith.

31.1 Rule 13a-14(a)/15(d)-14(a) Certifications of Chief Executive Officer and Principal Financial Officer.

32.1 Section 1350 Certification of Chief Executive Officer and Principal Financial Officer.

* management contract or compensatory plan or arrangement

** portions of exhibit have been omitted pursuant to a request for confidential treatment

SIGNATURES

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

HEALTH DISCOVERY CORPORATION

By: /s/ Stephen D. Barnhill, M.D., Chief Executive Officer and Principal Financial Officer

Date: March 31, 2009

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

Name	Title	Date
/S/Stephen D. Barnhill M.D. Stephen D. Barnhill M.D.	Chief Executive Officer, Principal Financial Officer, and Chairman	March 31, 2009
/S/Michael Hanbury Michael Hanbury	Director	March 31, 2009

Hancock Askew & Co LLP
100 Riverview Drive
Savannah, GA 31404

Report of Independent Registered Public Accounting Firm

Board of Directors
Health Discovery Corporation
Savannah, Georgia

We have audited the accompanying balance sheets of Health Discovery Corporation as of December 31, 2008 and 2007, the related statements of operations, changes in stockholders' equity, and cash flows for each of the two years in the period ended December 31, 2008. These financial statements are the responsibility of the management of Health Discovery Corporation. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we expressed 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 financial statements referred to above present fairly, in all material respects, the financial position of Health Discovery Corporation as of December 31, 2008 and 2007 and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2008 in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note M, the Company has had limited revenue since inception, has incurred recurring losses from operations, and has had to continually seek additional capital investment in order to fund operations. These factors, among others, raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note M. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Hancock Askew & Co., LLP

Savannah, Georgia
March 20, 2009

HEALTH DISCOVERY CORPORATION

Balance Sheets

December 31, 2008 and 2007

	2008	2007
Assets		
Current Assets		
Cash	$325,887	1,648,439
Accounts Receivable	112,500	112,500
Prepaid Expense and Other Current Assets	34,355	33,829
Total Current Assets	472,742	1,794,768
Equipment, Less Accumulated Depreciation of $25,947 and $22,402	14,888	7,596
Other Assets		
Accounts Receivable – Long Term	—	112,500
Patents, Less Accumulated Amortization of $1,205,963 and $942,972	2,780,101	3,042,820
Total Assets	$3,267,731	4,957,684
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts Payable – Trade	$220,972	61,173
Accrued Liabilities	245,742	239,589
Deferred Revenue	57,153	62,708
Total Current Liabilities	523,867	363,470
Deferred Revenue – Long Term	396,562	453,715
Total Liabilities	920,429	817,185
Commitments and Contingencies		
Stockholders' Equity		
Series A Preferred Stock, Convertible, Stated Value of $0.08 per Share 7,437,184 Shares Authorized, Issued and Outstanding	594,975	594,975
Common Stock, No Par Value, 300,000,000 Shares Authorized, Issued and Outstanding 169,522,590 and 169,007,206 Shares, respectively	15,744,873	15,390,609
Accumulated Deficit	(13,992,546)	(11,845,085)
Total Stockholders' Equity	2,347,302	4,140,499
Total Liabilities and Stockholders' Equity	$3,267,731	4,957,684

See accompanying notes to financial statements.

HEALTH DISCOVERY CORPORATION

Statements of Operations

For the Years Ended December 31, 2008 and 2007

	2008	2007
Revenues		
Licensing and Development	$65,731	57,905
Cost of Revenues		
Licensing and Development	9,000	21,300
Gross Profit	56,731	36,605
Expenses:		
Amortization	262,719	262,719
Professional and Consulting Fees	748,748	980,833
Compensation	745,918	783,726
Other General and Administrative Expenses	484,806	459,064
Total Expenses	2,242,191	2,486,342
Net Loss from Operations	(2,185,460)	(2,449,737)
Other Income (Expense):		
Interest Income	39,160	39,614
Gains on Restructuring of Accounts Payable	—	44,594
Loss from Unconsolidated Joint Venture	—	(5,000)
Litigation Settlement	—	(42,000)
Interest Expense	(1,161)	(286,398)
Total Other Income (Expense)	37,999	(249,190)
Net Loss	$(2,147,461)	(2,698,927)
Weighted Average Outstanding Shares	169,165,786	132,718,789
Loss Per Share	$(.01)	(.02)

See accompanying notes to financial statements.

HEALTH DISCOVERY CORPORATION

Statements of Changes in Stockholders' Equity

For the Year Ended December 31, 2008 and 2007

	Issued and Outstanding					
	Preferred Shares	Common Shares	Preferred Amount	Common Amount	Accumulated Deficit	Total Stockholders' Equity
Balance – January 1, 2007	—	116,393,384	$—	$11,059,674	$ (9,146,158)	$ 1,913,516
Stock Issued for Cash	—	31,937,500	—	2,490,540		2,490,540
Stock Issued upon Exercise of Options and Warrants	—	100,000	—	1,000		1,000
Stock Issued in Connection with Debt Conversion	7,437,184	19,601,322	594,975	1,298,800		1,893,775
Stock Issued for Settlement of Litigation	—	400,000	—	32,000	—	32,000
Stock Issued in Severance Agreement	—	575,000	—	46,000	—	46,000
Warrants Issued for Services	—	—	—	320,570	—	320,570
Stock Compensation Expense for Compensatory Options and Warrants	—	—	—	142,025	—	142,025
Net Loss	—	—	—	—	(2,698,927)	(2,698,927)
Balance - December 31, 2007	7,437,184	169,007,206	$594,975	$15,390,609	$ (11,845,085)	$ 4,140,499
Shares issued pursuant to the terms of the Securities Purchase Agreement for no additional consideration	—	515,384	—	36,077	—	36,077
Options Issued for Services	—	—	—	9,336	—	9,336
Warrants Issued for Services	—	—	—	217,666	—	217,666
Stock Compensation Expense for Compensatory Options	—	—	—	91,185		91,185
Net Loss	—	—	—	—	(2,147,461)	(2,147,461)
Balance - December 31, 2008	7,437,184	169,522,590	$594,975	$15,744,873	$ (13,992,546)	$ 2,347,302

See accompanying notes to financial statements.

HEALTH DISCOVERY CORPORATION

Statements of Cash Flows

For the Years Ended December 31, 2008 and 2007

	2008	2007
Cash Flows From Operating Activities:		
Net Loss	$(2,147,461)	$(2,698,927)
Adjustments to Reconcile Net Loss to Net Cash Used by Operating Activities:		
Stock Issued in Settlement of Litigation	—	32,000
Stock Issued Pursuant to Shareholder Agreement	36,077	—
Non-cash Compensation	100,520	188,025
Accretion of Debt Discount	—	192,361
Services Exchanged for Common Stock or Warrants	217,667	286,814
Issuance of Warrants	—	33,756
Gain on Restructuring Accounts Payable	—	(44,594)
Depreciation and Amortization	268,147	270,865
Changes in Assets and Liabilities:		
Decrease (Increase) in Accounts Receivable	112,500	(205,000)
(Increase) Decrease in Prepaid Expense & Other Assets	(526)	21,358
Increase (Decrease)in Accounts Payable – Trade	159,799	(132,161)
(Decrease) Increase in Deferred Revenue	(62,708)	415,312
Increase in Accrued Liabilities	6,153	173,073
Net Cash Used by Operating Activities	(1,309,832)	(1,467,118)
Cash Flows From Investing Activities:		
Purchase of Equipment	(12,720)	(998)
Net Cash Used by Investing Activities	(12,720)	(998)
Cash Flows From Financing Activities:		
Repayment of Notes Payable	—	(49,351)
Proceeds from Issuance of Common Stock	—	2,491,540
Net Cash Provided by Financing Activities	—	2,442,189
Net Increase (Decrease) in Cash	(1,322,552)	974,073
Cash, at Beginning of Period	1,648,439	674,366
Cash, at End of Period	$325,887	$1,648,439
Stock-Based Investing and Financing Transactions:		
Common Stock, Series A Preferred Stock, and Warrants Issued in Settlement of Promissory Notes	$—	$1,893,775
Supplemental Disclosures of cash Flow Information:		
Cash Paid for Interest	$1,161	$10,084

See accompanying notes to financial statements.

Note A - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

DESCRIPTION OF BUSINESS

Health Discovery Corporation (the "Company") is a biotechnology-oriented company that has acquired patents and has patent pending applications for certain machine learning tools, primarily pattern recognition techniques using advanced mathematical algorithms to analyze large amounts of data thereby uncovering patterns that might otherwise be undetectable. Such machine learning tools are currently in use for diagnostics and drug discovery, but are also marketed for other applications. The Company licenses the use of its patented protected technology or may provide services to develop specific learning tools under development agreements or to sell to third parties.

USE OF 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, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the period. Accordingly, actual results could differ from those estimates. Significant estimates that are particularly suspectible to change in the near-term include the valuation of share-based compensation and consideration for services and the recoverability of the patents.

REVENUE RECOGNITION

Revenue is generated through the sale or license of patented technology and processes and from services provided through development agreements. These arrangements are generally governed by contracts that dictate responsibilities and payment terms. The Company recognizes revenues as they are earned over the duration of a license agreement or upon the sale of any owned patent once all contractual obligations have been fulfilled. Revenue is recognized under development agreements in the period the services are performed.

COST OF REVENUE

Cost of revenue includes internal development costs and fees directly associated with sales contracts.

Cost of revenue for licensing and development revenue includes fees directly asssociated with the contracts and salary expense based upon the estimated amount of time worked on the licensing or development contract.

CASH AND CASH EQUIVALENTS

Cash and cash equivalents include cash and monies invested in overnight funds with financial institutions.

ACCOUNTS RECEIVABLE

Trade accounts receivable for licensing fees and development services are recorded at net contract value based upon the written agreement with the customer. In certain cases, accounts receivable may include royalties receivable from customers based upon those customers estimated sales of the products or diagnostic tests containing patented processes and technologies. The Company considers amounts past due based on the related terms of the agreement and reviews its exposure to amounts receivable based upon collection history and specific customer credit analysis. The Company provides an allowance for doubtful amounts if collectability is no longer reasonably assured. As of December 31, 2008 and 2007, all amounts receivable were considered fully collectable.

PROPERTY AND EQUIPMENT

Property and equipment, which consists of office furniture, computer equipment and leasehold improvements, are stated at cost. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets, which range from 3 to 10 years. Leasehold improvements are amortized using the straight-line method over the estimated useful lives of the assets or the term of the lease, whichever is shorter.

Note A - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, continued

PATENTS

Initial costs paid to purchase patents are capitalized and amortized using the straight line method over the remaining license period. The Company capitalizes the external and in-house legal costs and filing fees associated with obtaining patents on its new discoveries and amortizes these costs using the straight-line method over the shorter of the legal life of the patent or its economic life, generally 17 years, beginning on the date the patent is issued. If the applied for patents are abandoned or are not issued, the Company will expense the capitalized costs to date in the period of abandonment. The carrying value of patents is reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. As of December 31, 2008, the Company does not believe there has been any impairment of its intangible assets.

INCOME TAXES

The Company accounts for income taxes using the asset and liability method. Deferred tax assets and liabilities are recognized for future tax benefits and expenses or consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income for the years in which those temporary differences are expected to be recovered or settled.

In the event the future tax consequences of differences between the financial reporting bases and tax bases of the Company's assets and liabilities result in deferred tax assets, an evaluation of the probability of being able to realize the future benefits indicated by such assets is made. A valuation allowance is provided for the portion of the deferred tax asset when it is more likely than not that some portion or all of the deferred tax asset will not be realized. In assessing the realizabilty of the deferred tax assets, management considers the scheduled reversals of deferred tax liabilities, projected future taxable income and tax planning strategies.

On January 1, 2007 the Company adopted the provisions of FASB Interpretation No. 48, *"Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement No. 109"* (FIN 48). FIN 48 clarifies the accounting for uncertainty in income taxes recognized in a company's financial statements in accordance with SFAS No. 109. FIN 48 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. The interpretation also provides guidance on derecognition, classification, interest, and penalties, accounting in interim periods, disclosure, and transition. Based in its evaluation of tax positions, the Company has concluded that there are no significant uncertain tax positions requiring recognition in its financial statements. The Company's evaluation was performed for all tax years which remain subject to examination and adjustment by major tax jurisdictions as of December 31, 2008. FIN 48 did not have an impact on the Company's financial position or results of operations.

STOCK-BASED COMPENSATION

Stock-based compensation cost is measured at grant date, based on the fair value of the award, and is recognized as expense over the requisite service period. Stock-based expense included in the 2008 net loss consisted of $309,687 in compensatory warrants, options and stock for professional consulting services and compensation. Stock-based expense included in the net loss for 2007 consisted of $540,595 for the issuance of common stock, warrants and options.

Valuation and Amortization Method – Under SFAS No. 123(R), the fair value awards of stock which do not contain market conditions, such as a specified hurdle price, is based on the market price of the Company's common stock on the date of grant and the fair value of each stock option or warrant which does not contain a market condition is estimated on the grant date using the Black-Scholes option-pricing model. Under SFAS No. 123(R), the fair value of options which contain a market condition, such as a specified hurdle price, is estimated on the grant date using a probability weighted fair value model similar to a lattice valuation model. Both the Black-Scholes and the probability weighted valuation models require assumptions and estimates to determine expected volatility, expected life, expected dividend yield and expected risk-free interest rates.

Note A - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, continued

Expected Term – The expected term of the award represents the period that the Company's stock-based awards are expected to be outstanding and was determined based on historical experience, giving consideration to the contractual terms of the stock-based awards, vesting schedules and expectations of future employee behavior. Given the lack of historical data and start-up nature of the company's operations, the expected term is estimated as the contractual term.

Expected Volatility – Volatility is a measure of the amounts by which a financial variable such as stock price has fluctuated (historical volatility) or is expected to fluctuate (expected volatility) during a period. The Company uses the historical volatility to estimate expected volatility.

Risk-Free Interest Rate – The Company bases the risk-free interest rate used in the Black-Scholes valuation method on the implied yield currently available on U.S. Treasury zero-coupon issues with a remaining term equivalent to the expected term of a stock award.

Estimated Forfeitures – When estimating forfeitures, the Company considers voluntary termination behavior as well as analysis of actual option forfeitures.

Estimated Dividend yield – The Company has not paid any dividends and has no current plans to do so. Therefore, the dividend rate is assumed to be zero.

RESEARCH AND DEVELOPMENT EXPENSE

The Company's past research and development costs have been minimal due to the unique relationships we have maintained with the members of our scientific team and their institutions. Our total R&D costs have consisted solely of the consultant fees paid to members of our scientific advisory board. These fees consisted of $14,160 for 2008 and $46,432 for 2007.

FAIR VALUE OF FINANCIAL INSTRUMENTS

The Company's financial instruments consist of cash, accounts receivable, accounts payable and accrued expenses. The Company considers the carrying values of its financial instruments in the financial statements to approximate their fair value due to the short term nature of such items.

NET LOSS PER SHARE

Basic Earnings Per Share ("EPS") includes no dilution and is computed by dividing income or loss available to common shareholders by the weighted average number of common shares outstanding for the period. Diluted EPS reflects the potential dilution of securities that could share in the earnings or losses of the entity. Due to the net loss in all periods presented, the calculation of diluted per share amounts would cause an anti-dilutive result and therefore is not presented. Potentially dilutive shares at December 31, 2008 and 2007 include the following:

	2008	2007
Stock options	7,250,000	3,500,000
Warrants	121,527,644	159,099,644
	128,777,644	162,599,644

Note A - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, continued

CONCENTRATIONS OF CREDIT RISK

The Company maintains its cash balances at financial institutions that are insured by the Federal Deposit Insurance Corporation ("FDIC") up to $100,000. From time-to-time, the Company's cash balances exceed the amount insured by the FDIC. Management believes the risk of loss of cash balances in excess of the insured limit to be low.

NEW ACCOUNTING PRONOUNCEMENTS

In September 2006, the FASB issued Statement No. 157, *Fair Value Measurements*, ("Statement No. 157"). This statement provides a single definition of fair value, a framework for measuring fair value, and expanded disclosures concerning fair value. Previously, different definitions of fair value were contained in various accounting pronouncements creating inconsistencies in measurement and disclosures. We adopted Statement No. 157 effective January 1, 2008. The adoption of Statement No. 157 did not have a material impact on our financial statements.

In April 2008, the FASB issued FASB Staff Position FAS 142-3, *Determination of the Useful Life of Intangible Assets* ("FSP 142-3"). FSP 142-3 amends the factors to be considered in developing renewal and extension assumptions used to determine the useful life of a recognized intangible asset accounted for under FAS No. 142, *Goodwill and Other Intangible Assets*. FSP 142-3 is effective for the Company's fiscal year 2009 and must be applied prospectively to intangible assets acquired after January 1, 2009. Early adoption is not permitted. The Company does not expect the adoption of FSP 142-3 will have a material impact on its Consolidated Financial Statements.

In December 2007, FASB issued SFAS No. 160, "Noncontrolling Interests in Consolidated Financial Statements – an amendment of ARB No. 51" ("SFAS No. 160"). SFAS No. 160 requires that noncontrolling (i.e. Minority) ownership interests in subsidiaries held by parties other than the parent, and the amount of consolidated net income, be clearly identified, labeled, and presented in the consolidated financial statements within equity, but separate from the parent's equity. It also requires that once a subsidiary is deconsolidated, any retained noncontrolling equity investment in the former subsidiary be initially measured at fair value. Sufficient disclosures are required to clearly identify and distinguish between the interests of the parent and the interests of the noncontrolling owners. In addition to the amendments to ARB 51, this Statement amends SFAS No. 128 "Earnings per Share"; so that earnings-per-share data will continue to be calculated the same way those data were calculated before SFAS No. 160 was issued. SFAS No. 160 is effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008. SFAS No. 160 was effective for us beginning January 1, 2009 and did not have a material impact on our financial statement.

Note B – DEFERRED REVENUE

Deferred revenue represents the unearned portion of payments received in advance for licensing or service agreements.

The Company had total unearned revenue of $453,715 as of December 31, 2008. Unearned revenue of $57,153 is recorded as current and $396,562 is classified as long-term. The long term portion of unearned revenue is being amortized over the remaining term of the agreements or the remaining lives of the underlying patents, as appropriate, and ranges from one to sixteen years.

Deferred revenue was $516,423 as of December 31, 2007. Of this amount, $62,708 was recognized as income in 2008.

Note B – DEFERRED REVENUE, continued

The expected future annual recognition of revenue is as follows (in thousands):

For the Year Ending December 31,	
2009	$ 57,153
2010	29,375
2011	29,375
2012	29,375
2013	29,375
Thereafter	279,062
Total expected future annual amortization	$ 453,715

Note C – PATENTS

The Company has acquired a group of patents related to biotechnology and certain machine learning tools used for diagnostic and drug discovery. Additionally, legal costs associated with patent acquisitions and the application process are also capitalized as patent costs. The Company has recorded $2,780,101 and $3,042,820 in patents and patent related costs, net of accumulated amortization, at December 31, 2008 and 2007.

Amortization charged to operations for each of the years ended December 31, 2008 and 2007 was $262,719. The weighted average amortization period for patents is 14 years. Estimated amortization expense for the next five years is $262,719 per year.

Note D – INVESTMENTS

The Company uses the equity method to account for its equity investments in ventures for which it has 50% or less ownership and the ability to exercise significant influence over operating and financial policies, but does not control. The Company uses the cost method to account for its investments in companies that it does not control and for which it does not have the ability to exercise significant influence over operating and financial policies. In accordance with the cost method, these investments are recorded at cost or fair value, as appropriate. As of December 31, 2008, the Company had investments in SVM Capital, which it owned 45% and account for under the equity method, and Smart Personalized Medicine, which it owned 15% and will account for by the cost method. The carrying value of both investments was zero at December 31, 2008.

On March 27, 2007, the Company and an investment partner formed SVM Capital LLC as an equity investment for purposes of utilizing SVMs as a quantitative investment management technique. The Company owns 45% of the membership interest and has significant influence with the operation of the entity but is not considered the primary beneficiary. Accordingly, the investment is presented using the equity method of accounting. The Company's initial investment was $5,000. Equity in the loss of SVM Capital LLC for 2007 was $5,000. The resultant net value was zero as of December 31, 2008 and December 31, 2007. The Company has no contractual obligation to provide any additional funds to this venture.

Note E – LITIGATION SETTLEMENT

Effective July 1, 2007, the Company entered into a patent license and settlement agreement with Ciphergen Biosystems, Inc. ("Ciphergen") in connection with the pending litigation styled *Health Discovery Corporation v. Ciphergen Biosystems, Inc.* Case No. 07-00285-CRB before the United States District Court for the Northern District of California ("The Agreement"). The Agreement provides Ciphergen a license to use certain patents. In consideration for entering into the Agreement, Ciphergen agreed to pay the Company $600,000 over a two-year period. The revenue associated with this settlement was recorded net of $130,000 in contingently payable attorney fees as deferred revenue in the amount of $470,000 and will be recognized over the sixteen year remaining life of the subject patents.

Note E – LITIGATION SETTLEMENT, continued

On June 19, 2007, the Company entered into a settlement agreement (the "Settlement Agreement") among Bill G. Williams, Shirley K. Williams, and Automated Shrimp Corporation (collectively, the "Defendants"), Stephen Barnhill as Third-Party Defendant, and Baptist Community Services, Tim Holloway, Guadalupe Family Limited Partnership, and Gerald Easterling as Intervenors in connection with the pending litigation styled *Health Discovery Corporation v. Williams et al.*, filed in the District Court of McLennan County, State of Texas, Civil Action File No. 10-04-00012-CV. Pursuant to the terms of the Settlement Agreement, each party agreed to voluntarily dismiss with prejudice any and all claims it has against each and every other party. In consideration for entering into the Settlement Agreement, the Company agreed to issue in the aggregate 400,000 shares of Company common stock valued at $32,000 to the Defendants and pay the defendants an aggregate $10,000.

Note F – LICENSE FEES EXPENSE - LICENSE AGREEMENT

Effective September 26, 2004, the Company was assigned a patent license agreement with Lucent Technologies GRL Corporation ("Lucent"). The patent license agreement was associated with the patents acquired July 30, 2004. The Company agreed to pay royalty fees to Lucent in the amount of the greater of an annual fee of $10,000 or at the rate of five percent (5%) on each licensed product which is sold, leased, or put into use by the Company, until cumulative royalties equal $40,000 and at the rate of one percent (1%) subsequently. The license granted will continue for the entire unexpired term of Lucent's patents. During both 2008 and 2007, the Company paid approximately $10,000 in royalty fees to Lucent.

Note G – INCOME TAXES

The Company has incurred net losses since inception and, consequently, we have not recorded any U.S. federal or state income taxes. We have no recorded income tax provision or benefit for the fiscal years ending December 31, 2008 or 2007.

The following items comprise the Company's net deferred tax assets (liabilities) as of December 31, 2008.

	2008	2007
Deferred tax assets:		
Net operating loss carry-forward	$3,655,365	$2,975,861
Deferred revenue	154,263	175,584
Contributions	2,491	2,474
Depreciation and amortization	1,148	1,724
Warrants and options granted	560,136	783,341
Total	4,373,403	3,938,984
Less valuation allowance	(4,373,403)	(3,938,984)
Net deferred asset	—	—

As of December 31, 2008, an increase in the valuation allowance of $434,418 has been recorded for the deferred tax asset, as management has determined that it is more likely than not that the deferred tax asset will not be realized.

Note G – INCOME TAXES, continued

Total income tax expense (benefit) differed from the amounts computed by applying the U.S. Federal statutory tax rates to pre-tax loss for the fiscal years ending December 31, 2008 and 2007 as follows:

	2008	2007
Total expense (benefit) computed by:		
Applying the U.S. Federal statutory rate	(34.0)%	(34.0)%
State income taxes, net of federal tax benefit	(3.0)	(3.0)
Valuation allowance	37.0	37.0
Effective tax rate (benefit)	—	—

The Company has unused net operating loss carry-forwards of approximately $10.8 million that are available to offset future income taxes. The net operating loss will expire beginning in 2021.

Note H – NOTES PAYABLE AND CONVERTIBLE NOTES PAYABLE

The Company eliminated all notes payable and convertible debt in 2007 through the conversion of debt to equity.

The Company issued 19,601,323 shares of common stock and 7,437,184 shares of Series A Preferred Stock in a conversion of secured debt to equity. The amount of debt converted to common stock and warrants was $1.6 million and the amount of debt converted to Series A Preferred Stock was $594,975. Each share of common stock issued in the conversion was accompanied by one warrant to acquire an equal number of shares of common stock at $0.14 and one warrant to acquire an equal number of shares of common stock at $0.19.

	Converted Debt	Common Stock 19,601,323 Shares	Common Stock Warrants @0.14 19,601,323	Common Stock Warrants @$0.19 19,601,323	Common Stock Total	Preferred Stock 7,437,184 Shares
Term Debt	$ 321,911	$ 157,167	11,227	11,227	179,621	142,290
Convertible Debt	$ 616,292	$ 220,068	15,719	15,719	251,506	364,786
Promissory Note Payable	$ 1,000,000	$ 875,000	62,500	62,500	1,000,000	—
Accrued Interest	$ 224,878	$ 119,859	8,561	8,561	136,981	87,899
Total Debt	$ 2,163,081	1,372,094	98,007	98,007	1,568,108	594,975
Promissory Note Payable	$ (269,307)	$ (235,644)	(16,832)	(16,832)	(269,308)	—
Discount Unaccreted Increase in Equity	$ 1,893,774	$ 1,136,450	81,174	81,174	1,298,800	594,975

The $49,351 debt remaining after the conversion was paid in cash along with interest accrued of $6,374.

On September 1, 2006, the Company obtained a $1,000,000 loan from a director. The loan had interest at 5%, all interest and principal was due at maturity on September 1, 2008. The outstanding balance of this loan was converted to common stock in September 2007. The Company also issued 10,000,000 warrants to this director with an exercise price of $0.16 in connection with the promissory note dated September 1, 2006.

Note H – NOTES PAYABLE AND CONVERTIBLE NOTES PAYABLE, continued

The warrants vested over ten months because the note remained unpaid during that period. The warrants were assigned a value of $554,000. A discount of the loan was recorded in the amount of $554,000 and was accreted through interest expense over the period the loan was outstanding.

Note I – COMMITMENTS

The Company has entered into agreements with certain members of its Scientific Advisory Board wherein they are each entitled to receive 100,000 shares of the Company's common stock annually upon satisfactory completion of one year of service. The Company is accruing an expense for the anticipated issuance over the service period. At December 31, 2008, the Company has recorded $30,000 of consultant expense for anticipated issuances of the shares.

The Company signed a three year lease on July 1, 2007 at $1,678 per month for the corporate office. The Company currently pays $1,741 per month due to subsequent contractual increases in the rental rate. Future lease payments will be $20,892 and $10,446 in 2009, and 2010 respectively.

Note J – STOCK COMPENSATION

The Company approved 8,000,000 shares of common stock to be reserved solely for issuance and delivery upon the exercise of option grants. Information about options and warrants outstanding for 2008 and 2007 is summarized below:

Number of Derivative Securities Issued	2008	Weighted Average Exercise Price	2007	Weighted Average Exercise Price
Outstanding beginning of year	162,599,644	$ 0.17	72,296,250	$ 0.23
Granted	8,750,000	$ 0.08	122,773,394	$ 0.18
Exercised	0		(100,000)	$ 0.01
Expired un-exercised	(42,572,000)	$ 0.21	(32,370,000)	$ 0.33
Outstanding end of the year	128,777,644	$ 0.16	162,599,644	$ 0.17

December 31, 2008

Exercise Prices	Number Outstanding	Weighted-Average Remaining Contractual Life (years)	Number Exercisable	Weighted Average Remaining Contractual Life (years) of Exercisable Warrants
$0.08	9,300,000	7.75	1,050,000	4.15
$0.10	300,000	0.7	300,000	0.7
$0.11	500,000	1.0	500,000	1.0
$0.13	5,000,000	0.7	5,000,000	0.7
$0.14	52,138,822	1.7	52,138,822	1.7
$0.16	10,000,000	1.7	10,000,000	1.7
$0.19	51,538,822	1.7	51,538,822	1.7
Total	128,777,644		120,527,644	

Note J – STOCK COMPENSATION, continued

There were 2,875,000 options exercisable at December 31, 2007. There were 250,000 options exercisable at December 31, 2008. The weighted average exercise prices of options were $0.08 and $0.11 at December 31, 2008 and 2007 respectively. The weighted average remaining life of all exercisable and non-vested options at December 31, 2008 is 8.8 years.

As of December 31, 2008, there was approximately $179,030 of unrecognized cost related to stock option grants. The cost is to be recognized over the remaining vesting periods that average approximately 1.17 years. The aggregate intrinsic value of options outstanding and exercisable as of December 31, 2008 was zero.

The Company granted 1,250,000 options to an advisor during the third quarter of 2008. The fair value of each option granted was $0.06 and was estimated on the date of grant using the Black-Scholes pricing model with the following assumptions: dividend yield at 0%, risk-free interest rate of 2.62%, an expected life of 5 years, and volatility of 98.61 %. The aggregate computed value of these options was $74,693 and this amount will be charged as expense over the two year vesting period.

The Company entered into an award agreement with the Chief Executive Officer granting 6,000,000 stock options. The options vest in the following increments once both the service condition, indicated by the applicable Vesting Date, and the market condition, indicated by attaining the minimum share price for any 20 consecutive trading days, are satisfied:

Vesting Date	Minimum Share Price	Number of Options
August 15, 2008	$ 0.10	1,000,000
January 1, 2009	$ 0.15	2,000,000
January 1, 2010	$ 0.20	2,000,000
January 1, 2010	$ 0.25	1,000,000

The fair value of each option was $0.03 and was estimated on the date of the grant using a probability weighted fair value model similar to a lattice valuation model with the following assumptions: dividend yield at 0%, risk free interest rate of 3.50%, an expected life of 6 years, and volatility of 106.52%. The aggregate computed value of these options was $172,485 and this amount will be charged as expense over the 1.4 year vesting period.

On February 1, 2007, the Company issued in the aggregate 15,235,000 warrants to purchase common stock of the Company to certain institutional investors and individual accredited investors. These warrants vested immediately and had an exercise price of $0.35 per share. The warrants expired on November 1, 2007. On February 1, 2007, an equal number of warrants issued to the same institutional and individual investors and with substantially similar terms expired. The fair value of the warrants issued was approximately $33,755 and they were recorded as expense on the issue date.

Also on February 1, 2007, the Company issued 500,000 warrants to consultants, which vested immediately, and have an exercise price of $0.14. Additionally, the Company issued 100,000 warrants to a consultant, which vested over a period of ten months, and have an exercise price of $0.14. Together, these warrants were valued at $49,068 and expire on December 31, 2009.

During the second quarter of 2007, the Company issued 500,000 immediately vesting warrants to consultants with an exercise price of $0.11. These warrants expire on December 31, 2009, and were valued at $19,815. They were charged to expense upon issuance.

Note J – STOCK COMPENSATION, continued

During the third quarter of 2007, the Company issued 60,750 warrants, which expired on December 31, 2008, to a vendor as payment for professional services rendered. These warrants had an exercise price of $0.10 and were fully vested upon issuance. The fair value of $1,719 was recorded as expense. The Company also issued 300,000 warrants with an exercise price of $0.08 to a former employee as part of a termination agreement. These warrants, which expire after three years, vested immediately and had a fair value of $13,869. This amount was recorded as compensation expense. Two new directors were each awarded 1,500,000 warrants which vest over three years and expire in six years. These warrants have an exercise price of $0.08 and had an aggregate fair market value of $197,374. These warrants will be charged as directors' fees over the vesting period. One director subsequently forfeited his 1,500,000 warrants upon his resignation as a director.

The Company also issued warrants to purchase up to 103,077,644 shares of common stock in connection with the sale of common stock effective September 7, 2007. Each purchaser of common stock received one warrant exercisable at $0.14 (the "Tranche 1 Warrants") and one warrant exercisable at $0.19 (the "Tranche 2 Warrants") for each share of common stock purchased or converted from debt. All these warrants vested immediately, expire three years from the date of issuance, and are subject to call rights based upon the trading value of the Company's stock. With respect to the Tranche 1 Warrants, if the Company's stock trades for an amount in excess of $0.17 for thirty (30) consecutive days, then 50% of the warrants may be called by the Company. The Tranche 1 warrants, if exercised, may result in the issuance of up to 51,538,832 shares of the Company's common stock, at an exercise price of $0.14 per share, and the Tranche 2 warrants, if exercised, may result in the issuance of up to 51,538,832 shares of Company common stock at an exercise price of $0.19 per share. These warrants were valued at $0.005 each resulting in $515,388 of common stock proceeds being allocated to the fair value of the warrants. With respect to the Tranche 2 Warrants, if the Company's stock trades for an amount in excess of $0.24 for thirty (30) consecutive days, then 50% of the warrants may be called by the Company. As of December 31, 2008 there was approximately $196,033 in unrecognized cost related to warrants granted.

In the first quarter of 2008, the Company fully vested a 1,500,000 warrant grant for a retiring director by accelerating the vesting of 375,000 warrants exercisable at $0.13. A charge of $44,438 was recorded as directors' fees.

In June 2008, a warrant to purchase 1,500,000 shares of Company common stock at an exercise price of $0.08, vesting over three years and expiring in six years, was issued by the Company to a new director. The value of $85,200 will be charged as directors' fees over the vesting period.

Note K - STOCKHOLDERS' EQUITY

In July 2007, the Company issued 575,000 shares of common stock valued at $46,000 to a former employee as part of a termination agreement. The Company also issued 400,000 shares of common stock valued at $32,000 as part of a litigation settlement in July 2007.

Effective September 7, 2007, the Company issued 31,937,500 shares of restricted common stock in return for $2.55 million. The stock is restricted from resale as the stock has not been registered. Each purchaser of common stock also received one warrant to acquire an equal number of shares at $0.14 and one warrant to acquire an equal number of shares at $0.19. The common shares were valued at $0.07 each and the warrants were valued at $0.005 each for a total of $0.08.

During 2007, the Company also issued 19,601,323 shares of common stock and 7,437,184 shares of Series A Preferred Stock in a conversion of secured debt to equity. The amount of debt converted to common stock and warrants was $1.6 million and the amount of debt converted to Series A Preferred Stock was $594,975. Each share of common stock issued in the conversion was accompanied by one warrant to acquire an equal number of shares of common stock at $0.14 and one warrant to acquire an equal number of shares of common stock at $0.19.

In August 2008, the Company issued 515,384 shares of common stock to certain investors, pursuant to the terms of the Securities Purchase Agreement dated August 15, 2007, for no additional consideration. The Company recorded expense of $36,076 or $0.07 per share. The Company did not issue any other shares during the twelve months ended December 31, 2008.

Note K – STOCKHOLDERS' EQUITY, continued

Series A Preferred Stock

The shares of Series A Preferred Stock may be converted into common stock of the Company at any time without the payment of additional consideration. The Series A Preferred Stock must be converted into common stock of the Company when the trading value of the common stock of the Company exceeds $0.12 per share for a period of 30 consecutive calendar days. The holder of the Series A Preferred Stock has the right to receive dividends, the right to vote on matters presented to the common stockholders, and a preference right in the event of liquidation in an amount equal to $594,975, which is the amount of debt converted, plus any declared but unpaid dividends. The Company has a right to redeem the shares of Series A Preferred Stock upon the fifth anniversary of the issue date at a redemption price of $0.08 per share.

Note L - RELATED PARTY TRANSACTIONS

The Company previously leased the location used as the principle executive office from a company owned by the wife of the Company's Chief Executive Officer. The term of the principle executive office lease was month-to-month and the rent expense associated with this lease was $1,036 per month. This arrangement terminated in June 2007. Rent expense under this lease arrangement amounted to approximately $6,644 in 2007.

The Company acquired a specialized cryogenic freezer system used to keep tissue samples from the Chief Executive Officer on July 11, 2008 for $9,752.

In July 2008, the Company and DCL Medical Laboratories, LLC, a full-service clinical reference laboratory focused on women's health, entered into a Development and License Agreement for the collaborative development and commercialization of SVM-based computer assisted diagnostic tests for the independent detection of ovarian, cervical and endometrial cancers. Dr. Hanbury, one of the Company's directors, is currently President, CEO and a shareholder of DCL Medical Laboratories. Pursuant to the Development and License Agreement, HDC will own any developed intellectual property and DCL Medical Laboratories will have a sole use license relating to applications and new mathematical tools developed during the course of the Development and License Agreement. In connection with the Development and License Agreement, HDC will receive 50% of the profits from screening services performed by DCL Medical Laboratories. If HDC commercializes an application and offers services as permitted by the Development and License Agreement, HDC will pay DCL Medical Laboratories 25% of HDC's profits.

In August 2008, the Company entered into a licensing agreement with Smart Personalized Medicine, LLC, a company founded by our former director, Dr. Richard Caruso. Under the terms of this agreement, we will work to develop a superior breast cancer prognostic test using our SVM technology in collaboration with a prominent cancer research hospital. In exchange for a license to use our SVM technology, the Company will receive a 15% equity position in Smart Personalized Medicine, LLC (which will remain undiluted until there is at least $5 million in investment from investors in Smart Personalized Medicine, LLC) and a per test royalty up to 7.5% based on net proceeds received from the sale of the new breast cancer prognostic test.

On August 14, 2008, the Company and Dr. Richard Caruso entered into an Amendment to Stock Purchase Warrant. The Amendment permits Dr. Caruso's warrants, which were previously granted to Dr. Caruso in 2007 for his services as a director, to continue to vest so long as he serves the Company as an advisor. The amendment was subsequently rescinded by the Company and Dr. Caruso. The Company granted 1,250,000 options to Dr. Caruso during the third quarter of 2008. These options will continue to vest so long as Dr. Caruso is an advisor to the Company.

Note M – GOING CONCERN

The accompanying financial statements have been prepared in conformity with principles of accounting applicable to a going concern, which contemplates the realization of assets and the liquidation of liabilities in the normal course of business. Limited revenue has been derived since inception, and the Company has not yet generated sufficient working capital to support its operations. The Company's ability to continue as a going concern is dependent, among other things, on its ability to reduce certain costs and obtain additional revenues to eventually attain a profitable level of operations.

The Company initiated licensing the technology underlying several of its patents and is providing supporting services related to the application of such technology that is resulting in ongoing revenue. In addition, management has successfully raised additional equity investment and negotiated agreements with its debt holders, which resulted in the conversion of this debt to equity. Based on these developments, management believes revenue generation will continue, additional licensing agreements will be obtained in the near-term, and non-revenue generating costs will be controlled. There are no assurances that management will be able to successfully generate revenue or reduce expenses, attain profitability, or continue to attract the capital necessary to support the business.

Note N – SUBSEQUENT EVENTS

On January 30, 2009, the Company entered into a license agreement with Abbott Molecular Inc. ("Abbott"), pursuant to which the Company granted Abbott an exclusive, royalty-bearing license to certain intellectual property rights related to the Company's prostate cancer biomarkers. In consideration of the Company granting the license to Abbott, in January 2009 Abbott paid to the Company a one-time initial signing fee of $100,000. In addition, Abbott will also pay milestone payments and royalties to the Company in accordance with the terms of the license agreement.

On January 30, 2009, the Company entered into a license agreement with Quest Diagnostics Incorporated ("Quest"), pursuant to which the Company granted to Quest a non-exclusive license to certain intellectual property rights related to the development of a test for and performing clinical laboratory diagnostic testing using gene biomarkers to differentiate clinically significant prostate cancer from other prostate conditions. In consideration of granting the license to Quest, Quest paid a license fee to the Company and will pay running royalty payments, certain milestone payments, and development fees.

On March 30, 2009, the Company filed Articles of Amendment (the "Amendment") with the Secretary of State of the State of Georgia to amend our Articles of Incorporation. The Amendment sets forth the rights and preferences of the Series B Preferred Stock, including the right to receive dividends, including special dividends, the right to vote on matters presented to holders of common stock, a preference right in the event of liquidation, and the right to convert the Series B Preferred Stock into common stock. The Amendment was authorized by the Board of Directors on March 20, 2009. The Company is in the process of raising capital through an offering of this Series B Preferred Stock and has raised $200,000 subsequent to year end.

Note O – COMMITMENTS AND CONTINGENCIES

The Company is subject to various claims primarily arising in the normal course of business. Although the outcome of these matters cannot be determined, the Company does not believe it is probable, in accordance with SFAS No. 5, "Accounting for Contingencies," that any such claims will result in material costs and expenses.

EXHIBIT 3.1(b)

Articles of Amendment

to

Articles of Incorporation

of

Health Discovery Corporation

1. The name of the corporation is Health Discovery Corporation.

2. The Articles of Incorporation of Health Discovery Corporation are hereby amended to insert a new Section 2B – Series B Preferred Stock, as follows:

Section 2B. Series B Preferred Stock

1. Designation.

The shares of such series shall be designated as Series B Preferred Stock (the "Series B Preferred Stock") and the number of shares constituting the Series B Preferred Stock shall be 13,750,000.

2. Dividend Rights.

Subject to the rights of the Series A Holders, the Series B Preferred Stock shall have the following dividend rights:

(a) Annual Dividends: The Corporation shall not declare, pay or set aside any dividends on shares of any class or series of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) other than with respect to the Series A Preferred Stock unless the holders of the Series B Preferred Stock then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Series B Preferred Stock in an amount at least equal to (i) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Series B Preferred Stock as would equal the product of (A) the dividend payable on each share of such class or series determined, if applicable, as if all such shares of such class or series had been converted into Common Stock and (B) the number of shares of Common Stock issuable upon conversion of a share of Series B Preferred Stock, in each case calculated on the record date for determination of holders entitled to receive such dividend or (ii) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series B Preferred Stock determined by dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock and multiplying such fraction by an amount equal to $0.08 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares) (such amount, as so adjusted from time to time, being hereinafter referred to as the "Series B Original Issue Price").

(b) The Series B Preferred Stock shall also accrue dividends at the rate of 10% of the Series B Original Issue Price per year, which shall be satisfied by the fifth anniversary of the issuance of the Series B Preferred Stock (the "Original Issue Date") by the Corporation's issuance of the number of shares of Common Stock equal to such accrued dividends divided by the average closing price of the Corporation's Common Stock as reported on the Over-the-Counter-Bulletin Board or other exchange on which the Corporation's Common Stock trades during the prior ten business days or by the payment of cash, as the Company may determine in its sole discretion. Subject to the limitations set forth in this Section 2(b) and applicable law, as long as the Series B Preferred Stock remain outstanding, the Company shall pay the holders of the Series B Preferred Stock a special dividend equal to 10% of Company Net Revenue collected beginning with the Original Issue Date and ending on the date the Series B Preferred Stock cease to be outstanding (the "Cash Bonus"). Company Net Revenue will include, but not be limited to, revenue derived from development fees, license fees and royalties paid to the Company and revenue collected as a result of the sale of any asset of the Company or distributions from SVM Capital, LLC (each a "Revenue Contract"), but shall not include the proceeds of any capital infusions from the exercise of outstanding options or warrants or as a result of any capital raise undertaken by the Company. At any time following the Original Issue Date, the Company may satisfy the special dividend right in its entirety if the aggregate payments made to the Series B Holders is equal to that value which provides an internal annual rate of return of twenty percent (20%) on the Series B Preferred Stock. The maximum Cash Bonus to be paid each year shall be the aggregate Series B Original Issue Price, and no amounts in excess of such amount shall accrue or carry-over to subsequent years. The term "Company Net Revenue" means gross revenues collected under the Revenue Contracts, reduced by the amount of any out-of-pocket costs or expenses that are directly related to obtaining, negotiating or documenting the Revenue Contracts and the performance of such Revenue Contracts, regardless of when such expenses were incurred; provided, however, no portion of the general Company overhead, including the salaries of Company employees, shall reduce Company Net Revenue unless any such cost or expense is an explicit element of a Revenue Contract. The amount of any dividends shall be reduced proportionately if the maximum number of shares of Series B Preferred Stock are not sold in this offering and as shares of Series B Preferred Stock cease to remain outstanding and shall be limited to the Series B Original Issue Price. No dividends will be made if, after the payment of such dividend, the Company would not be able to pay its debts as they become due in the usual course of business, or the Corporation's total assets would be less than the sum of its total liabilities plus the amount that would be needed, if the Company were to be dissolved, to satisfy the preferential rights upon the dissolution to shareholders whose preferential rights are superior to those receiving the dividend.

3. Voting Rights.

Each share of Series B Preferred Stock shall be entitled to vote on all matters submitted to a vote of the shareholders of the Corporation and each share shall have a number of votes equal to the same number of shares of Common Stock into which it is then convertible. Except as otherwise provided herein, in any other amendment to the Articles of Incorporation of the Corporation creating a series of Preferred Stock or any similar stock, or by law, the holders of Series A Preferred Stock, Series B Preferred Stock, Common Stock and any other capital stock of the Corporation having general voting rights shall vote together as one class on all matters submitted to a vote of shareholders of the Corporation.

4. Liquidation Rights.

(a) Payments to Holders of Series B Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, subsequent to the payment of the Series A Liquidation Amount to the Series A Holders, the holders of shares of Series B Preferred Stock then outstanding shall be entitled to be paid out of the assets available for distribution to its shareholders (on a pari passu basis with the holders of any class or series of stock ranking on liquidation on a parity with the Series B Preferred Stock), and before any payment shall be made to the holders of Common Stock or any other class or series of stock ranking on liquidation junior to the Series B Preferred Stock (such Common Stock and other stock being collectively referred to as "Junior Stock") by reason of their ownership thereof, an amount equal to the greater of (i) two times the Series B Original Issue Price, plus any accrued but unpaid dividends, or (ii) such amount per share as would have been payable had each such share been converted into Common Stock pursuant to Section 5 immediately prior to such liquidation, dissolution or winding up (the amount payable pursuant to this sentence is hereinafter referred to as the "Series B Liquidation Amount"). If upon any such liquidation, dissolution or winding up of the Corporation the remaining assets available for distribution to its shareholders shall be insufficient to pay the holders of shares of Series B Preferred Stock and any class or series of stock ranking on liquidation on a parity with the Series B Preferred Stock the full aforesaid preferential amount to which they shall be entitled, the holders of shares of Series B Preferred Stock and any class or series of stock ranking on liquidation on a parity with the Series B Preferred Stock shall share ratably in any distribution of the remaining assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(b) Payments to Holders of Junior Stock. After the payment of all preferential amounts required to be paid to the Series B Holders and any other class or series of stock of the Corporation ranking on liquidation senior to or on a parity with the Series B Preferred Stock, the holders of shares of Junior Stock then outstanding shall be entitled to receive the remaining assets of the Corporation available for distribution to its shareholders as otherwise set forth in this Articles of Incorporation.

(c) Deemed Liquidation Events.

(i) The following events shall be deemed to be a liquidation of the Corporation for purposes of this Section 4 (a "Deemed Liquidation Event"), unless the holders of a majority of the Series B Preferred Stock elect otherwise by written notice given to the Corporation at least five (5) days prior to the effective date of any such event:

(A) a merger, consolidation or share exchange in which

(1) the Corporation is a constituent party, or

(2) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger, consolidation or share exchange, except any such merger, consolidation or share exchange involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger, consolidation or share exchange continue to represent, or are converted or exchanged for shares of capital stock which represent, immediately following such merger, consolidation or share exchange at least a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger, consolidation or share exchange, the parent corporation of such surviving or resulting corporation (provided that, for the purpose of this Subsection 4(c)(i), all shares of Common Stock issuable upon exercise of options outstanding immediately prior to such merger, consolidation or share exchange or upon conversion of Convertible Securities outstanding immediately prior to such merger, consolidation or share exchange shall be deemed to be outstanding immediately prior to such merger, consolidation or share exchange and, if applicable, converted or exchanged in such merger, consolidation or share exchange on the same terms as the actual outstanding shares of Common Stock are converted or exchanged); or

(B) the sale, lease, transfer or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, except where such sale, lease, transfer or other disposition is to a wholly owned subsidiary of the Corporation.

(ii) The Corporation shall not have the power to effect any transaction constituting a Deemed Liquidation Event pursuant to Subsection 4(c)(i)(A)(I) above unless the agreement or plan of merger, consolidation or share exchange provides that the consideration payable to the shareholders of the Corporation shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 4(a) and 4(b) above.

(iii) In the event of a Deemed Liquidation Event pursuant to Subsection 4(c)(i)(A)(II) or (B) above, if the Corporation does not effect a dissolution of the Corporation under the Georgia Business Corporation Code within 60 days after such Deemed Liquidation Event, then (A) the Corporation shall deliver a written notice to each Series B Holder no later than the 60th day after the Deemed Liquidation Event advising such holders of their right (and the requirements to be met to secure such right) pursuant to the terms of the following clause (B) to require the redemption of such shares of Series B Preferred Stock, and (B) if the holders of at least a majority of the then outstanding shares of Series B Preferred Stock so request in a written instrument delivered to the Corporation not later than 75 days after such Deemed Liquidation Event, the Corporation shall use the consideration received by the Corporation for such Deemed Liquidation Event (net of any retained liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board of Directors of the Corporation) (the "Net Proceeds") to redeem, to the extent legally available therefor, on the 90th day after such Deemed Liquidation Event (the "Liquidation Redemption Date"), all outstanding shares of Series B Preferred Stock at a price per share equal to the Series B Liquidation Amount. In the event of a redemption pursuant to the preceding sentence, if the Net Proceeds are not sufficient to redeem all outstanding shares of Series B Preferred Stock, or if the Corporation does not have sufficient lawfully available funds to effect such redemption, the Corporation shall redeem a pro rata portion of each holder's shares of Series B Preferred Stock to the fullest extent of such Net Proceeds or such lawfully available funds, as the case may be, and, where such redemption is limited by the amount of lawfully available funds, the Corporation shall redeem the remaining shares to have been redeemed as soon as practicable after the Corporation has funds legally available therefor. Prior to the distribution or conversion provided for in this Subsection 4(c)(iii), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to discharge expenses incurred in the ordinary course of business.

(iv) The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any such merger, consolidation, sale, transfer, other disposition or redemption shall be the cash or the value of the property, rights or securities paid or distributed to such holders by the Corporation or the acquiring person, firm or other entity. The value of such property, rights or securities shall be determined in good faith by the Board of Directors of the Corporation.

5. Optional Conversion Rights.

(a) The holders of the Series B Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

(i) Right to Convert. Each share of Series B Preferred Stock shall be convertible, at the option of the holder thereof, so long as there are a sufficient number of unissued and unreserved shares of Common Stock outstanding to allow for the exercise of all of the Corporation's outstanding derivative securities, the Series A Preferred Stock, and the Series B Preferred Stock, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing $0.08 by the Series B Conversion Price (as defined below) in effect at the time of conversion. The "Series B Conversion Price" shall initially be equal to the Series B Original Issue Price. Such initial Series B Conversion Price, and the rate at which shares of Series B Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below. In the event of a liquidation, dissolution or winding up of the Corporation or a Deemed Liquidation Event, the Conversion Rights shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Series B Preferred Stock.

(ii) Mechanics of Optional Conversion.

(A) In order for a holder of Series B Preferred Stock to voluntarily convert shares of Series B Preferred Stock into shares of Common Stock, such holder shall surrender the certificate or certificates for such shares of Series B Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Series B Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent), together with written notice that such holder elects to convert all or any number of the shares of the Series B Preferred Stock represented by such certificate or certificates and, if applicable, any event on which such conversion is contingent. Such notice shall state such holder's name or the names of the nominees in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. If required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date of receipt by the transfer agent of such certificates (or lost certificate affidavit and agreement) and notice (or by the Corporation if the Corporation serves as its own transfer agent) shall be the time of conversion (the "Conversion Time"), and the shares of Common Stock issuable upon conversion of the shares represented by such certificate shall be deemed to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time, issue and deliver at such office to such holder of Series B Preferred Stock, or to his, her or its nominees, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled, together with cash in lieu of any fraction of a share.

(B) All shares of Series B Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares, including the rights, if any, to receive notices and to vote, shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor and to receive payment of any dividends declared but unpaid thereon. Any shares of Series B Preferred Stock so converted shall be retired and cancelled and shall not be reissued as shares of such series, and the Corporation (without the need for stockholder action) may from time to time take such appropriate action as may be necessary to reduce the authorized number of shares of Series B Preferred Stock accordingly.

(C) Upon any such conversion, no adjustment to the Series B Conversion Price shall be made for any declared but unpaid dividends on the Series B Preferred Stock surrendered for conversion or on the Common Stock delivered upon conversion.

(b) Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Series B Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board of Directors of the Corporation. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Series B Preferred Stock the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

(c) Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the date that the first share of Series B Preferred Stock is issued (the "Original Series B Issue Date") effect a subdivision of the outstanding Common Stock, the Series B Conversion Price in effect immediately before that subdivision shall be proportionately decreased. Conversely, if the Corporation shall at any time or from time to time after the Original Series B Issue Date combine the outstanding shares of Common Stock into a smaller number of shares, the Series B Conversion Price in effect immediately before the combination shall be proportionately increased. Any adjustment under this Section 5(c) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(d) Adjustment for Common Stock Dividends and Distributions. If the Corporation at any time or from time to time after the Original Series B Issue Date makes, or fixes a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution to holders of Common Stock payable in additional shares of Common Stock, in each such event the Series B Conversion Price that is then in effect shall be decreased as of the time of such issuance or, in the event such record date is fixed, as of the close of business on such record date, by multiplying the Series B Conversion Price then in effect by a fraction (1) the numerator of which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and (2) the denominator of which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution; provided, however, that if such record date is fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Series B Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Series B Conversion Price shall be adjusted pursuant to this Section 5(d) to reflect the actual payment of such dividend or distribution.

(e) Adjustment for Reclassification, Exchange and Substitution. If at any time or from time to time after the Original Series B Issue Date, the Common Stock issuable upon the conversion of the Series B Preferred Stock is changed into the same or a different number of shares of any class or classes of stock, whether by recapitalization, reclassification or otherwise (other than a subdivision or combination of shares or stock dividend or a reorganization, merger, consolidation or sale of assets provided for elsewhere in this Section 5), in any such event each holder of Series B Preferred Stock shall have the right thereafter to convert such stock into the kind and amount of stock and other securities and property receivable in connection with such recapitalization, reclassification or other change with respect to the maximum number of shares of Common Stock into which such shares of Series B Preferred Stock could have been converted immediately prior to such recapitalization, reclassification or change, all subject to further adjustments as provided herein or with respect to such other securities or property by the terms thereof.

(f) Reorganizations, Mergers, Consolidations or Sales of Assets. If at any time or from time to time after the Original Series B Issue Date, there is a capital reorganization of the Common Stock (other than a recapitalization, subdivision, combination, reclassification, exchange or substitution of shares provided for elsewhere in this Section 5), as a part of such capital reorganization, provision shall be made so that the holders of the Series B Preferred Stock shall thereafter be entitled to receive upon conversion of the Series B Preferred Stock the number of shares of stock or other securities or property of the Corporation to which a holder of the maximum number of shares of Common Stock deliverable upon conversion would have been entitled in connection with such capital reorganization, subject to adjustment in respect of such stock or securities by the terms thereof. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 5 with respect to the rights of the holders of Series B Preferred Stock after the capital reorganization to the end that the provisions of this Section 5 (including adjustment of the Series B Conversion Price then in effect and the number of shares issuable upon conversion of the Series B Preferred Stock) shall be applicable after that event and be as nearly equivalent as practicable.

(g) Certificate of Adjustment. In each case of an adjustment or readjustment of the Series B Conversion Price for the number of shares of Common Stock or other securities issuable upon conversion of the Series B Preferred Stock, the Corporation, at its expense, shall compute such adjustment or readjustment in accordance with the provisions hereof and prepare a certificate showing such adjustment or readjustment, and shall mail such certificate, by first class mail, postage prepaid, to each registered holder of Series B Preferred Stock at the holder's address as shown in the Corporation's books. The certificate shall set forth such adjustment or readjustment, showing in detail the facts upon which such adjustment or readjustment is based, including a statement of (1) the consideration received or deemed to be received by the Corporation for any additional shares of Common Stock issued or sold or deemed to have been issued or sold, (2) the Series B Conversion Price at the time in effect, (3) the number of additional shares of Common Stock issued or sold or deemed to have been issued or sold, and (4) the type and amount, if any, of other property which at the time would be received upon conversion of the Series B Preferred Stock.

(h) Notices of Record Date. Upon (i) any taking by the Corporation of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution, or (ii) any voluntary or involuntary dissolution, liquidation or winding up of the Corporation, any Deemed Liquidation Event, or any redemption, the Corporation shall mail to each holder of Series B Preferred Stock at least ten (10) days prior to the record date specified therein a notice specifying (1) the date on which any such record is to be taken for the purpose of such dividend or distribution and a description of such dividend or distribution, (2) the date on which any such voluntary or involuntary dissolution, liquidation or winding up, Deemed Liquidation Event, or redemption is expected to become effective, and (3) the date, if any, that is to be fixed for determining the holders of record of Common Stock (or other securities) that shall be entitled to exchange their shares of Common Stock (or other securities) for securities or other property deliverable upon such voluntary or involuntary dissolution, liquidation or winding up, Deemed Liquidation Event, or redemption.

6. Mandatory Conversion.

(a) Subject to and in compliance with the provisions of Section 5 and this Section 6, at the election of the Corporation at any time on or after the fifth anniversary of the Series B Original Issue Date each share of Series B Preferred Stock will be converted into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing $0.08 by the Series B Conversion Price in effect at the time of conversion. No payment of additional consideration by the holder thereof shall be required upon such conversion.

(b) All holders of record of shares of Series B Preferred Stock shall be given written notice of the mandatory conversion and the place designated for mandatory conversion of all such shares of Series B Preferred Stock pursuant to this Section 6. Such notice need not be given in advance. Such notice shall be sent by first class or registered mail, postage prepaid, or given by electronic communication in compliance with the provisions of the Georgia Business Corporation Code, to each record holder of Series B Preferred Stock. Upon receipt of such notice, each holder of shares of Series B Preferred Stock shall surrender his, her or its certificate or certificates for all such shares to the Corporation at the place designated in such notice, and shall thereafter receive certificates for the number of shares of Common Stock to which such holder is entitled pursuant to this Section 6(b). Upon such conversion, all outstanding shares of Series B Preferred Stock shall be deemed to have been converted into shares of Common Stock, which shall be deemed to be outstanding of record, and all rights with respect to the Series B Preferred Stock so converted, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock) will terminate, except only the rights of the holders thereof, upon surrender of their certificate or certificates therefore, to receive certificates for the number of shares of Common Stock into which such Series B Preferred Stock has been converted, and payment of any declared but unpaid dividends thereon. If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. As soon as practicable after the mandatory conversion and the surrender of the certificate or certificates for Series B Preferred Stock, the Corporation shall cause to be issued and delivered to such holder, or on his, her or its written order, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and cash as provided in Subsection 5(b) in respect to any fraction of a share of Common Stock otherwise issuable upon such conversion.

(c) All certificates evidencing shares of Series B Preferred Stock which are required to be surrendered for conversion in accordance with the provisions hereof shall, from and after the mandatory conversion, be deemed to have been retired and cancelled and the shares of Series B Preferred Stock represented thereby converted into Common Stock for all purposes, notwithstanding the failure of the holder or holders thereof to surrender such certificates on or prior to such date. Such converted Series B Preferred Stock may not be reissued as shares of such Series, and the Corporation may thereafter take appropriate action (without the need for shareholder action) as may be necessary to reduce the authorized number of shares of Series B Preferred Stock accordingly.

7. Ranking.

The Series B Preferred Stock shall, with respect to dividend rights and distribution of assets on liquidation, dissolution or winding up of the Corporation, rank (a) junior to, the Series A Preferred Stock with respect to dividend rights and distribution of assets on liquidation, dissolution or winding up of the Corporation and (b) senior to any other stock of the Corporation, including the Common Stock.

8. General Provisions.

(a) Registration of Transfer. The Corporation shall keep at its principal office a register for the registration of the Series B Preferred Stock. Upon the surrender of any certificate representing Series B Preferred Stock at such place, the Corporation shall, at the request of the record holder of such certificate, execute and deliver (at the Corporation's expense) a new certificate or certificates in exchange therefor representing in the aggregate the number of shares represented by the surrendered certificate. Each such new certificate shall be registered in such name and shall represent such number of shares as is requested by the holder of the surrendered certificate and shall be substantially identical in form to the surrendered certificate.

(b) Replacement. Upon receipt of evidence reasonably satisfactory to the Corporation of the ownership and the loss, theft, destruction or mutilation of any certificate evidencing shares of Series B Preferred Stock, and in the case of any such loss, theft or destruction, upon receipt of indemnity reasonably satisfactory to the Corporation (provided that if the holder is a financial institution or other institutional investor its own agreement shall be satisfactory), or in the case of any such mutilation upon surrender of such certificate, the Corporation shall (at its expense) execute and deliver in lieu of such certificate a new certificate of like kind representing the number of shares of such class represented by such lost, stolen, destroyed or mutilated certificate and dated the date of such lost, stolen, destroyed or mutilated certificate.

(c) Notices. Any notice required by the provisions of this Article shall be in writing and shall be deemed effectively given: (i) upon personal delivery to the party to be notified, (ii) when sent by confirmed telex or facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (iv) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All notices to shareholders shall be addressed to each holder of record at the address of such holder appearing on the books of the Corporation.

(d) No Dilution or Impairment. The Corporation shall not amend the Articles of Incorporation or participate in any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, for the purpose of avoiding or seeking to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation.

(e) No Reissuance of Series B Preferred Stock. Any shares of Series B Preferred Stock which is redeemed or otherwise acquired (by purchase or otherwise) by the Corporation will be canceled and not be reissued, sold or transferred.

(f) Stock to be Issued Upon Conversion. The Corporation covenants that all shares of Common Stock which shall be so issued shall be duly and validly issued and fully paid and nonassessable and free from all taxes, liens and charges with respect to the issue thereof, and, without limiting the generality of the foregoing, the Corporation covenants that it will from time to time take all such action as may be requisite to assure that the par value per share of the Common Stock is at all times equal to or less than the lowest applicable Series B Conversion Price in effect at the time. The Corporation will take all such action as may be necessary to assure that all such shares of Common Stock may be so issued without violation of any applicable law or regulation, or of any requirement of any national securities exchange upon which the Common Stock may be listed.

(g) Issue Tax. The issuance of certificates for shares of Common Stock upon conversion of Series B Preferred Stock shall be made without charge to the holders thereof for any issuance tax in respect thereof, provided that the Corporation shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any certificate in a name other than that of the holder of Series B Preferred Stock that is being converted, in which case no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

3. These Articles of Amendment were adopted by the Board of Directors of the Corporation on March 20, 2009.

4. Pursuant to authority vested in the Board of Directors of the Corporation by its Articles of Incorporation and pursuant to the provisions of Section 14-2-602 of the Georgia Business Corporation Code, the Board of Directors of the Corporation adopted these Articles of Amendment.

IN WITNESS WHEREOF, the Corporation has caused these Articles of Amendment to be executed by its duly authorized officer this 27th day of March, 2009.

HEALTH DISCOVER CORPORATION

By: /s/ Stephen D. Barnhill, M.D.
Name: Stephen D. Barnhill, M.D.
Title: Chief Executive Officer

EXHIBIT 4.1(c)

SEE RESTRICTIVE LEGENDS ON REVERSE

HEALTH DISCOVERY CORPORATION
a Georgia corporation

Certificate Number B-__

_____ Shares of Series B Preferred Stock

THIS CERTIFIES THAT _____ is the registered holder of _____ (*_____*) shares of the Series B Preferred Stock of Health Discovery Corporation (the "Corporation"), transferable only on the books of the Corporation by the holder hereof in person or by attorney upon surrender of this certificate properly endorsed.

This certificate and the shares represented hereby are issued and shall be held subject to the provisions of the Articles of Incorporation and the Bylaws of the Corporation and any amendments thereto, to all of which the holder of this certificate, by acceptance hereof, assents.

The Corporation is authorized to issue three classes of stock, Common Stock, Series A Preferred Stock and Series B Preferred Stock. A statement of all of the rights, preferences, privileges and restrictions granted to or imposed upon the respective classes or series of shares of stock of the Corporation and upon the holders thereof as established by the Articles of Incorporation may be obtained by any stockholder upon request at the principal office of the Corporation, and the Corporation will furnish to any stockholder, upon request and without charge, a copy of such statement.

IN WITNESS WHEREOF, the Corporation has caused this certificate to be signed by its duly authorized officers this _____ day of _____ 200__.

_____
Chief Executive Officer

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL TO THE TRANSFEROR TO SUCH EFFECT, THE SUBSTANCE OF WHICH SHALL BE REASONABLY ACCEPTABLE TO THE COMPANY.

For value received, _____ hereby sell, assign and transfer unto

PLEASE INSERT SOCIAL SECURITY OR OTHER
IDENTIFYING NUMBER OF ASSIGNEE

_____

_____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING ZIP CODE, OF ASSIGNEE)

_____

_____

_____

Shares of the stock represented by the within Certificate, and do hereby irrevocably constitute and appoint _____ Attorney to transfer the said stock on the books of the within named Company with full power of substitution in the premises.

_____

(DATE)

_____

(SIGNATURE: THE SIGNATURE ON THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME AS WRITTEN UPON THE FACE OF THE CERTIFICATE IN EVERY PARTICULAR WITHOUT ALTERATION OR ENLARGEMENT OR ANY CHANGE WHATEVER.)

LICENSE AGREEMENT

This License Agreement ("Agreement") is entered into as of January 30, 2009 (the "Effective Date") by and between **Health Discovery Corporation**, a Georgia corporation having its principal place of business at 2 East Bryan Street, Suite #601, Savannah, GA 31401 ("HDC"), and **Abbott Molecular Inc.**, a Delaware corporation having its principal place of business at 1300 East Touhy Avenue, Des Plaines, IL 60018 and its Affiliates (as defined below) (collectively "Abbott").

WHEREAS, HDC and Abbott each desires to establish a collaboration and license relationship between them.

NOW, THEREFORE, the parties agree as follows:

Article 1 – Definitions

The following capitalized terms shall have the following meanings:

1.1 "Affiliate" of a party shall mean a corporation or other business entity controlled by, controlling or under common control with, such party. For this purpose, control of a corporation or other business entity shall mean direct or indirect beneficial ownership of more than fifty percent (50%) of the voting interest in, or a greater than fifty percent (50%) interest in the equity of, such corporation or other business entity.

1.2 "Analyte Specific Reagent" or "ASR" shall mean the finished, packaged and labeled assembly of a Licensed Product in the form of assay components, purchased by commercial laboratories to test for the detection and/or quantification of an analyte under the United States Code of Federal Regulations, Title 21, Paragraphs 809.10, 809.30, 864.4010 and 864.4020.

1.3 "Change of Control" means (a) the acquisition of a party by another entity by means of any transaction or series of related transactions (including, without limitation, any reorganization, merger or consolidation) that results in the transfer of fifty percent (50%) or more of the voting securities of such party, (b) a sale of all or substantially all of the assets of a party, or (c) the acquisition by any person or other entity (other than a party and its Affiliates or employee benefit plans), including any person or group as defined in Paragraphs 3(a)(9) and 13(d), 14(d) and Rule 13d-5 of the Exchange Act of more than fifty percent (50%) of the voting securities of such party; provided, however, that no Change in Control shall occur by reason of (i) an initial public offering, or (ii) a reorganization, merger, consolidation or sale, the sole purpose of which is to change the state of a party's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held such party's securities immediately before such transaction.

1.4 "Collaboration" shall mean that term as it is defined in Paragraph 2.1.

1.5 "Collaboration Term" means the time period commencing upon the Effective Date and continuing until the first to occur of the date three (3) years after such date or completion of the research contemplated by the FDA Submission Plan.

1.6 "Confidential Information" shall mean the terms and conditions of this Agreement, and all information developed by the parties pursuant to the Collaboration and all other disclosed by one party to the other in writing and clearly marked "Confidential" or, if communicated orally, specified as confidential at the time of disclosure and confirmed in writing within thirty (30) days after such oral communication and clearly marked "Confidential"; provided, however, that Confidential Information shall not include information that:

1.6.1 is already in the public domain, or on or after the Effective Date comes into the public domain other than as a result of the wrongful disclosure by either party to this Agreement;

1.6.2 is already known to the recipient as evidenced by prior-dated written documents already in the recipient's possession, which documents were not furnished by the other party to this Agreement;

1.6.3 is disclosed to the other party by any third party having the right to make that disclosure;

1.6.4 is required by law to be disclosed in connection with the registration or filing with, or approval or certification from any governmental agency or body including, without limitation, the United States Food and Drug Administration, provided that the information is not the inventive subject matter of an unpublished patent application, or is required to be disclosed to comply with the terms of contractual relationships and provided that each party undertakes to use its best endeavors to maintain to the maximum extent possible and to make any third parties to whom such information is disclosed aware of the confidentiality of such information; or

1.6.5 can be proven to have been independently developed by the party receiving the information under this Agreement without the aid, application or use in any way of Confidential Information received from the disclosing party.

1.7 "FDA Submission Plan" shall mean the plan for the Collaboration attached hereto as Exhibit C.

1.8 "Field" shall mean the use of a molecular diagnostic assay using the Licensed Prostate Markers in *in vitro* diagnostics relating to prostate cancer, including the detection of the presence or risk of prostate cancer, or the selection of therapy, or in a Research Application related to prostate cancer.

1.9 "First Commercial Sale" or "FCS" shall mean the first time, except in the context of a clinical trial, Abbott transfers title of Licensed Product to an independent third party for monetary consideration or provides a Diagnostic Test Service using Licensed Product to an independent third party for monetary consideration.

1.10 "IVD" shall mean an assay which claims an intended use, and is approved by a governmental regulatory body for sale, as an *in vitro* diagnostic kit, and which is not an ASR or labeled for "Research Use Only", including an assay that is CE Marked.

1.11 "Joint Inventions" shall mean all new inventions jointly made, by the parties as part of the Collaboration.

1.12 "Joint Patent Rights" shall mean all patents and/or patent applications for Joint Inventions.

1.13 "Know-How" shall mean, without limitation, all trade secrets and technology, as well as non-patented, non-public inventions, improvements, discoveries, formulae, processes, data, and reagents discovered or developed by HDC, and owned or legally acquired by or licensed to HDC without restriction on dissemination and licensing, before or during the Collaboration Term, whether patentable or not, and which relate to the Field and the use of Licensed Prostate Markers in the Field.

1.14 "Laboratory Developed Test" shall mean the provision of test results from use of a Licensed Product or Licensed Products to assay a patient urine or prostate biopsy sample, to be entered into the medical history record of the patient providing the urine or prostate biopsy sample.

1.15 "Licensed Product(s)" shall mean finished products consisting of one or more nucleic acid detection reagents for the assay of one or more Prostate Marker(s) for use in the Field, the manufacture, use, sale or importation of which, but for the rights granted herein, would infringe a Valid Claim within Patent Rights.

1.16 "Net Sales" shall mean:

1.16.1 The amount charged for Licensed Product to a non-Affiliated third party, less a lump sum of five percent (5%) to cover all usual deductions, such as cash discounts allowed and taken; amounts for transportation, insurance or shipping; amounts repaid, credited or rebated for rejections or returns of Licensed Product; and taxes and duties. Net Sales shall not include Licensed Products used for clinical trials, research, evaluation of customer acceptance, charitable or humanitarian donations, commercial samples or other noncommercial uses as long as Abbott receives no financial compensation for such use or donation.

1.16.2 If the price of Licensed Product sold by Abbott or its Affiliates is increased to include an amount to cover the amortized cost of an instrument system or other equipment or the cost of supplying maintenance for such system or equipment under a Reagent Agreement Plan, Reagent Rental Plan or other successor similar plan (collectively referred to as "RAP"), the Net Sales for such Licensed Product shall be reduced an additional ten percent (10%).

1.16.3 In the event that Abbott or its Affiliates sells Licensed Product to a third party together with one or more other products (each a "Combination Product"), the Net Sales with respect to such Combination Product shall mean the price of such Combination Product billed to customers, less the allowances and adjustments above, multiplied by a percentage equal to the fraction A/(A+B), where A is the stand-alone market value of the Licensed Product and B is the stand-alone market value of the other product(s).

1.16.4 The amount charged for Laboratory Developed Test to a non-Affiliated third party, less (i) any shortfall in the reimbursement amount from the amount charged, and (ii) a lump sum of five percent (5%) to cover all usual deductions, such as cash discounts allowed and taken; amounts for transportation, insurance or shipping; amounts repaid, credited or rebated for rejections or returns of Licensed Product; and taxes and duties. Net Sales shall not include Laboratory Developed Tests used for clinical trials, research, evaluation of customer acceptance, charitable or humanitarian donations, commercial samples or other noncommercial uses as long as Abbott receives no direct financial compensation for such use or donation.

1.17 "Patent Rights" shall mean:

1.17.1 all patent(s) and/or patent applications listed in Exhibit A hereto that are owned or controlled by HDC as of the Effective Date that are applicable to the use of the Licensed Prostate Markers in the Field;

1.17.2 any additional patent and/or patent application(s) which, after the Effective Date and during the Collaboration Term, are solely owned or controlled by HDC and are free to be licensed and/or sublicensed by HDC and that are applicable to the Field (for the avoidance of doubt, such additional patent and/or patent application(s), including, without limitation, (a) patents and applications acquired or licensed by HDC from third parties that are applicable to the Field, and (b) such patents and applications covering New Inventions owned solely by HDC that are applicable to the Field; and

1.17.3 any and all divisions, continuations, continuations-in-part, renewals, reissues, extensions and supplemental protection certificates of any of the patent applications and patents described in the foregoing clauses of this Paragraph 1.17.

1.18 "Licensed Prostate Markers" shall mean one or more of the nucleic acid detection targets identified in Exhibit B that are present in a urine or prostate biopsy sample useful for the diagnostic identification, classification, therapeutic response prediction or monitoring of prostate cancer.

1.19 "Research Application" shall mean use of a Licensed Product or component thereof for research and clinical research applications. For purposes herein, the performance of a clinical trial using a Licensed Product during the Collaboration shall be deemed a Research Application.

1.20 "FDA Submission Plan" shall mean the plan for the Collaboration attached hereto as Exhibit C.

1.21 "RUO" shall mean "research use only", as defined in United States Code of Federal Regulations, Title 21, Paragraph 809.10(c)(2)(i).

1.22 "Territory" shall mean all the countries in the world.

1.23 "Utility" means the application for a Licensed Product, being (a) RUO, (b) an ASR, or (c) an IVD for any medical utility.

1.24 "Valid Claim" shall mean any claim of an issued and unexpired patent within Patent Rights or Joint Patent Rights exclusively licensed to Abbott, which claim has not been held invalid or unenforceable by a non-appealable decision of a court or governmental agency having competent jurisdiction.

Article 2 - The Collaboration, Materials and Data

2.1 Collaboration. During the Collaboration Term and pursuant to the FDA Submission Plan, Abbott and HDC agree to collaborate on the performance of the necessary validation studies and clinical trial(s), and the preparation of and submission to the U.S. Food and Drug Administration ("FDA') of either a 510(k) or PMA application seeking the necessary authorization from the FDA for the U.S. marketing, use and sale with associated claims of medical utility of a prostate cancer diagnostic assay (the "Collaboration"). For purposes of the Collaboration, the parties acknowledge and agree that:

2.1.1 The FDA Submission Plan specifies the responsibilities of the parties for the clinical trial activities, and may be modified only by a writing executed by both parties; and

2.1.2 Initially, Abbott will be solely responsible for the preparation and submission of the 510(k) or PMA application to the FDA. Abbott will provide a draft of the submission to HDC for its comment at least thirty (30) days before the actual filing with the FDA. However, the parties may agree in writing to a change in the allocation of responsibility. In this event, any such writing will modify the FDA Submission Plan to establish each party's responsibilities and whether any additional time or funding is required.

During the Collaboration Term, HDC agrees to exclusively collaborate with Abbott on the performance of the clinical trials and submission to the FDA.

2.2 Exchange of Materials. During the Collaboration Term, HDC will provide materials ("HDC Materials"), including, without limitation, test reagent samples and clinical samples, to Abbott, and Abbott will provide materials, including, without limitation, test reagents and clinical samples necessary to complete the Collaboration (collectively, "Abbott Materials") to HDC for the purposes described in the FDA Submission Plan. Each shall do so at its sole cost and expense. The parties shall comply with all applicable laws, rules and regulations in the packaging and shipment of the HDC Materials and Abbott Materials, as applicable (collectively, "Materials"). Abbott Materials are and shall remain the sole property of Abbott. HDC Materials are and shall remain the sole property of HDC. Each party shall use Materials of the other party solely for the Collaboration and shall not provide them to any third party for any purpose without the other party's prior written consent. Materials shall not be used for purposes of reporting of patient results, except in the course of a clinical trial whose protocol expressly provides for such reporting.

2.3 Additional and New Prostate Markers. Abbott and HDC may each separately bring additional prostate markers ("Additional Prostate Markers") into the Collaboration for investigation in combination with one or more of the Licensed Prostate Markers identified in Exhibit B. The parties may also decide to collaborate on discovery of new prostate markers ("New Prostate Markers"), with either Abbott or HDC providing urine or tissue samples that may exhibit such New Prostate Markers. Any such New Prostate Markers discovered in the Collaboration will be jointly owned by Abbott and HDC and subject to the provisions of Paragraphs 8.5 and 8.6 hereof.

2.4 Disclosure of Data. All data and other relevant information generated by a party pursuant to the Collaboration shall be promptly and fully disclosed to the other party, and shall be freely usable for internal use and any regulatory submission by the other party subject to the confidentiality provisions of Article 7 and intellectual property provisions of Article 8.

2.5 Reporting. At regular intervals to be determined and documented by the parties, each party shall submit progress and other written status reports as reasonably requested by the other party. Additionally, the parties shall hold regular meetings, alternating between their respective headquarters, at least quarterly, to review and discuss such progress.

Article 3 - Payments

3.1 Signing Fee. Promptly after execution of this Agreement by both parties, Abbott shall pay to HDC a one-time Signing Fee of One-Hundred-Thousand U.S. Dollars ($100,000.00). This Signing Fee shall be non-refundable and non-creditable towards royalties.

3.2 Phase 1 and 2 Completion Milestone Fee.

3.2.1 Upon completion of both Phases 1 and 2 described in the FDA Submission Plan, Abbott shall pay to HDC a one-time Phase 1 and 2 Completion Milestone Fee of Two-Hundred-Fifty-Thousand U.S. Dollars ($250,000.00). This Phase 1 and 2 Completion Milestone Fee shall be non-refundable and non-creditable towards royalties.

3.3 Phase 3 and 4 Completion Milestone Fee. Upon completion of both Phases 3 and 4 described in the FDA Submission Plan, Abbott shall pay to HDC a one-time Phase 3 and 4 Completion Milestone Fee of Two-Hundred-Fifty-Thousand U.S. Dollars ($250,000.00). This Phase 3 and 4 Completion Milestone Fee shall be non-refundable and non-creditable towards royalties.

3.4 FDA Submission Milestone Fee. Promptly after the filing by Abbott with the FDA of either a 510(k) or PMA submission, Abbott shall pay to HDC a one-time FDA Submission Fee of Five-Hundred-Thousand U.S. Dollars ($500,000.00). This Fee shall also be irrevocable and non-creditable against any royalty obligation.

3.5 FDA Approval Fee. Promptly after the receipt by Abbott of a written notification from the FDA of the approval of the applicable 510(k) or PMA submission, Abbott shall pay to HDC a one-time FDA Approval Fee of Five-Hundred-Thousand U.S. Dollars ($500,000.00). This Fee shall also be irrevocable and non-creditable against any royalty obligation.

Article 4 - License Terms and Royalty.

4.1 License Grant.

4.1.1. Exclusive License: HDC hereby grants Abbott an exclusive, worldwide, royalty-bearing license and right to make, have made, use, sell and import Licensed Products, with the right to sublicense, under Patent Rights, under HDC's interest in Joint Patent Rights and Know-How. The exclusive license granted herein shall be exclusive even as to HDC with respect to the making, have made, sale and import of Licensed Products.

4.1.2 Co-Exclusive License: HDC hereby grants Abbott a, co-exclusive, worldwide, royalty-bearing license for the performance of Laboratory Developed Tests, including the right to make and have made and import Licensed Products used in the performance of Laboratory Developed Tests, which co-exclusive license will be shared with the co-licensees identified in Exhibit D hereto. For as long as this Agreement remains in effect, apart from the identified co-licensees, HDC shall not retain nor have any right to grant further sublicenses.

4.2 Royalty.

4.2.1 For each Licensed Product that is sold by Abbott, Abbott shall pay HDC a running royalty equal to:

(a) For Licensed Products with medical utility claims solely for use on prostate tissue samples, ten percent (10%) of Abbott's Net Sales of such Licensed Product; and

(b) For Licensed Products with medical utility claims solely for use on urine samples, five percent (5%) of Abbott's Net Sales of such Licensed Product

4.2.2 For each Laboratory Developed Test that is sold by Abbott, Abbott shall pay HDC:

(a) a running royalty equal to ten percent (10%) of Abbott's Net Sales of such Laboratory Developed Test performed on a prostate tissue; or

(b) a running royalty equal to five percent (5.0%) of Abbott's Net Sales of such Laboratory Developed Test performed on a urine sample.

4.2.3 Abbott shall make all such payments in respect of running royalties within forty-five (45) days after the end of each calendar quarter following the FCS.

4.3 Sales Milestones. Upon the sale by Abbott of the specified number of Licensed Products with a medical utility claim for use on a urine sample, Abbott agrees to pay HDC, promptly after reaching each Sales Milestone:

(a) 1st Sales Milestone: After the sale of Fifty-thousand (50,000) tests in a calendar year, a one-time 1st Sales Milestone Fee of Two-Hundred-Thousand U.S. Dollars ($200,000.00);

(b) 2nd Sales Milestone: After the sale of Two-hundred-thousand (200,000) tests in a calendar year, a one-time 2nd Sales Milestone Fee of Seven-Hundred-Fifty-Thousand U.S. Dollars ($750,000.00); and

(c) 3rd Sales Milestone: After the sale of Five-hundred-thousand (500,000) tests in a calendar year, a one-time 3rd Sales Milestone Fee of One-Million-Five-Hundred-Thousand U.S. Dollars ($1,500,000.00);

The fees payable under Paragraph 4.3 shall not be creditable against the running royalty obligation of Paragraph 4.2. Abbott shall make all such payments under Paragraph 4.2.3 within forty-five (45) days after the end of each calendar quarter in which the Sales Milestone is reached.

4.4 Required Third Party Licenses. In the event one or more third party licenses are required, in Abbott's reasonable judgment, for Abbott to commercialize a Licensed Product or Laboratory Developed Test, then Abbott may reduce the running royalty otherwise payable to HDC for such Licensed Product under Paragraph 4.2.1 and 4.2.2 by the percentage amount of any running royalty payable by Abbott under such third-party license; provided, that such reduction may not be more than fifty percent (50%) of the rates specified in Paragraphs 4.2.1 and 4.2.2.

Article 5- Warranties and Representations

5.1 HDC. HDC warrants and represents to Abbott that:

5.1.1 to the best of its knowledge, it has the full legal right to grant Abbott the licenses to Patent Rights provided herein;

5.1.2 during the Collaboration Term, HDC will not collaborate with any third party with respect to any portion of the Collaboration or the development of any IVD assay covered by Patent Rights;

5.1.3 to the best of its knowledge, no third party is challenging in any jurisdiction the validity of any of the Patent Rights;

5.1.4 Exhibit A lists all patent(s) and/or patent applications owned or controlled by HDC as of the Effective Date that are applicable to the Field;

5.1.5 it has not received any written or oral communication asserting that the HDC 4-gene expression assay for prostate cancer to be tested in Phase 1 of the Validity Studies of the FDA Submission Plan, infringes any intellectual property right, including any patent right, owned or controlled by any third party;

5.1.6 it has the corporate power and authority to enter into this Agreement and the person executing this Agreement on behalf of HDC has been authorized to do so;

5.1.7 the terms of this Agreement do not conflict with or violate any contract binding upon HDC; and

5.1.8 it has not granted and will not grant to any third party, including the co-exclusive licensees listed in Exhibit D, any rights under Patent Rights to make, have made, import or sell Licensed Products.

5.2 Abbott. Abbott warrants and represents to HDC that it has the corporate power and authority to enter into this Agreement, that the person executing this Agreement on behalf of Abbott has been authorized to do so, and that the terms of this Agreement do not conflict with or violate any contract binding upon Abbott.

5.3 Limitation of Liability. IN NO EVENT WILL EITHER PARTY BE LIABLE TO THE OTHER UNDER ANY CIRCUMSTANCES FOR ANY INDIRECT, CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES, INCLUDING LOST PROFITS, RESULTING FROM THE PARTY'S PERFORMANCE OR FAILURE TO PERFORM UNDER THIS AGREEMENT.

Article 6 - Term and Termination

6.1 Term. This Agreement shall become effective on the Effective Date and shall terminate upon the expiration of the last to expire of Patent Rights licensed hereunder, unless sooner terminated as provided herein.

6.2 Termination for Cause. Either HDC or Abbott may unilaterally terminate this Agreement upon thirty (30) days written notice to the other in the event of:

6.2.1 the non-terminating party's insolvency; or

6.2.2 a material breach of the Agreement by a party, which breach is not cured within thirty (30) days of notice of such breach by the other party.

6.3 Abbott's Termination Right. Abbott may unilaterally and without cause terminate this Agreement upon ninety (90) days written notice to HDC.

6.4 HDC Termination Right. HDC may unilaterally terminate this Agreement upon one-hundred-eighty (180) days written notice to Abbott, which is given after Abbott has given written notice to HDC that the Completion Standards of Phase 2 were not met and that Abbott is not proceeding with Phase 3 and 4.

6.5 Survival. Paragraph 5.3, Articles 7, 8, 9 (subject to Paragraph 9.4) and 10 shall survive termination of this Agreement.

Article 7 - Confidential Information

7.1 Confidential Treatment. A party receiving the Confidential Information ("Receiving Party") of the other party ("Disclosing Party") agrees to hold that Confidential Information in trust and confidence for Disclosing Party. A Receiving Party will not use Confidential Information other than for the purposes of this Agreement. Each party shall, to the extent applicable hereunder, provide the other party with patient information as allowed by law and the Receiving Party shall maintain the confidentiality of all such patient information as required by law.

7.2 Limitation of Dissemination. A Receiving Party will only disclose Confidential Information received hereunder, whether oral or in writing, in tangible, intangible or electronic format, to those persons within the Receiving Party's organization or its agents (a) who have a need to know the Confidential Information in order to perform the Receiving Party's obligations under this Agreement, (b) who have been informed of the confidential nature of the Confidential Information, and (c) who are obligated to maintain the confidentiality of the Confidential Information consistent with the terms of this Agreement.

7.3 Standard of Care. A Receiving Party will treat the Confidential Information of the Disclosing Party with the same care as the Receiving Party's own proprietary information of like kind.

7.4 Handling of Information. A Receiving Party shall not (a) reverse engineer or otherwise exploit the Confidential Information in violation of this Agreement, and (b) remove or export from the United States or re-export any of such Confidential Information or any direct product thereof except in compliance with and with all licenses and approvals required under applicable export laws and regulations, including, without limitation, those of the U.S. Department of Commerce.

7.5 Compelled Disclosure. In the event that a Receiving Party is ordered by a court of competent jurisdiction or is compelled by law, order or regulation of a governmental agency or by subpoena to disclose all or any portion of the Confidential Information of the Disclosing Party to a third party, the Receiving Party shall give the Disclosing Party prompt notice of such order or subpoena, together with a copy thereof, so that the Disclosing Party may seek an appropriate protective order, if applicable. If, in the absence of a protective order, the Receiving Party is nonetheless compelled to disclose Confidential Information, the Receiving Party may disclose such information without liability hereunder; provided, however, that the Receiving Party gives the Disclosing Party notice of the Confidential Information to be disclosed as far in advance of its disclosure as is practicable and the Receiving Party uses its best efforts to obtain assurances that confidential treatment will be accorded to such Confidential Information.

7.6 Return of Confidential Information. Upon termination of this Agreement, the Receiving Party will return to the Disclosing Party or destroy all written Confidential Information, as well as any copies thereof, and will promptly destroy all memoranda, notes and other writings (whether in tangible, intangible or electronic format) prepared by the Receiving Party or on the Receiving Party's behalf based upon the Confidential Information of the Disclosing Party, except that the Receiving Party may retain one (1) copy of such Confidential Information for archival purposes, which copy shall be subject to obligations set forth herein. The Receiving Party shall also provide the Disclosing Party with a certificate of an appropriate representative of the Receiving Party to the effect that the Receiving Party has fully complied with the requirements of this Paragraph.

7.7 Injunctive Relief. Receiving Party acknowledges that the Confidential Information of Disclosing Party has been developed by Disclosing Party with substantial effort and at substantial cost and therefore has value to Disclosing Party, and that the breach of any of the provisions of this Agreement could cause Disclosing Party irreparable injury for which no adequate remedy at law exists. Accordingly, Disclosing Party shall have the right, in addition to any other rights it may have to seek from any court having jurisdiction a temporary or permanent restraining order or injunction restraining or enjoining Receiving Party from any violation of this Agreement.

Article 8 - Inventions

8.1 Ownership of Existing Inventions. Existing inventions and technologies of HDC and Abbott as of the Effective Date (including, without limitation, Licensed Prostate Markers and Additional Prostate Markers that each separately bring to the Collaboration) shall respectively remain the sole and separate property of HDC and Abbott and the ownership thereof shall not be affected by this Agreement. Except for the license granted Abbott hereunder, neither party shall have any claims to or rights in such existing inventions and technologies of the other party.

8.2 Ownership of New Inventions. Any new invention, development or discovery relating to the Field or New Prostate Markers for the Field conceived, made or reduced to practice by either party as part of the Collaboration, the FDA Submission Plan or with the use of Materials of the other party (each a "New Invention") shall be promptly disclosed in writing to the other party. Each party shall retain sole ownership in each Invention made solely by that party.

8.3 Patent Prosecution and Maintenance.

8.3.1 HDC shall pay all costs associated with the filing, prosecution and maintenance of patent applications and issued patents within the Patent Rights.

8.3.2 HDC shall notify Abbott of any change in status of patents and/or patent applications listed in Exhibit A and of the filing of any patent applications within the scope of the Patent Rights within sixty (60) days of any such change. HDC shall update Exhibit A at least annually to reflect any such changes. In the event any of the Patent Rights shall become involved in an opposition or interference proceeding, HDC shall manage the proceeding, at its own expense, and shall keep Abbott informed of the status of any such proceeding and may consider Abbott's views in formulating HDC's strategy in the proceeding.

8.3.3 For New Inventions owned solely by HDC, HDC shall prepare, apply for and maintain issued patents for such New Inventions throughout the Territory in such countries and in such manner as HDC shall determine after reasonable consideration of the views of Abbott.

8.3.4 If HDC elects not to file a patent application for a New Invention solely owned by HDC or to abandon an existing issued patent or pending patent application within the Patent Rights or do so in any particular jurisdiction within the Territory, HDC shall notify Abbott within a time sufficient for Abbott to familiarize itself with the case and make a decision before abandoning or failing to pursue the relevant issued patent or pending application. Abbott shall have thirty (30) days from the date of such notice within which it may notify HDC that Abbott has elected to assume the obligation and costs of filing and prosecuting or maintaining such patent application or issued patent. If Abbott elects to assume such obligation and costs, HDC shall assign its rights in the relevant patent application or issued patent to Abbott for only the affected jurisdiction(s); provided, however, that such assignment shall be coupled with the grant by Abbott to HDC of a fully-paid, nonexclusive license, without the right to sublicense, in the assigned patent application or issued patent for internal research purposes only. Any patent application or issued patent assigned to and maintained by Abbott provided in this subparagraph shall not be considered Patent Rights under this Agreement and Abbott shall have no royalty or fee obligations to HDC for Abbott's commercial use under such patent applications or issued patents.

8.4 Joint Inventions.

8.4.1 Each Joint Invention shall be jointly owned by the parties and each party shall have an undivided interest in such Joint Inventions and any Joint Patent Rights resulting therefrom, including the rights to commercialize Joint Inventions and grant licenses to third parties under the Joint Patent Rights. Inventorship for Joint Patent Rights shall be determined in accordance with U.S. patent law.

8.4.2 Neither party will file applications for U.S. or foreign patents for a Joint Invention without first consulting the other party. In the event that both parties agree to file an application for a patent for a Joint Invention, the parties will share equally all costs associated with filing, prosecuting, and maintaining Joint Patent Rights directed to any Joint Invention. The parties will mutually agree which of them will be responsible for filing, prosecution, and maintenance of a particular patent application or patent based upon the relative contribution of each party to the related Joint Invention.

8.4.3 The filing party shall make commercially reasonable efforts to minimize the cost of the filing and prosecution of patent applications for Joint Inventions and neither shall charge the other for overhead costs associated with prosecution undertaken by employed, in-house patent counsel of the filing party. The filing party shall promptly provide the non-filing party with copies of papers regarding the prosecution of such applications (including, without limitation, all patent office actions, any response to any office action affecting the scope or nature of the Joint Invention) and will use commercially reasonable efforts to consult with the non-filing party regarding its interest in the application and seek claims reasonably consistent with the interests of the non-filing party prior to making any such claims or responding to any office action relating thereto.

8.4.4 The non-filing party agrees to provide all reasonable assistance and cooperation to the filing party, including the execution of documents.

8.4.5 Either party may elect at any time not to participate in the filing of a patent application or maintaining an issued patent for a Joint Invention by giving notice to the other and assigning all of its rights in such Joint Invention (including, without limitation, all related Joint Patent Rights) to the other party. The party making such election shall have no further obligations to undertake or underwrite the cost, as the case may be, to prosecute, maintain, and enforce any such Joint Patent Right, except as to costs and expenses that have accrued prior to such assignment.

8.4.6 Each party will bring to the attention of the other party any third party infringement of any patent for a Joint Invention of which it becomes aware. Neither party will enforce any U.S. or foreign patents for a Joint Invention against a third party without the prior written consent of the other party, which consent shall not be unreasonably withheld or delayed. In the event that both parties agree to enforce a patent for a Joint Invention, the parties will use good faith efforts to determine which party will be responsible for enforcement of such Joint Patent Rights against such third party infringers and apportion the costs of enforcement based upon the commercial interest of each party to the infringing activity. The parties will apportion any recoveries based upon their contributions to the cost of enforcing such patent.

8.4.7 Neither party will grant a license to any third party to any U.S. or foreign patents for a Joint Invention without the prior written consent of the other party. In the event that either party grants a license to a patent for a Joint Invention, the parties will share equally in the gross revenues, including, but not limited to, license fees and royalties, realized for the license to the Joint Invention by the licensing party. Payments shall be made within forty-five (45) days after the end of each calendar quarter and accompanied by a report, setting forth the gross amounts received from the license). Upon reasonable request, the reporting party shall provide the requesting party copies of applicable reports due from the license under the license relating to royalties payable to the licensor party. Such reports shall constitute the licensor party's Confidential Information and shall be returned to the licensor party after the requesting party has had a reasonable opportunity to review the reports.

8.4.8 If after good faith negotiations the parties cannot reach agreement as to any dispute regarding Joint Inventions and Joint Patent Rights, the dispute may be submitted to Alternative Dispute Resolution as provided for in Paragraph 10.12.

Article 9- Indemnification

9.1 HDC. HDC shall indemnify, defend and hold harmless Abbott and its Affiliates, employees, officers, directors and agents from and against any suit, proceeding, claim, liability, loss, damage, costs or expense, including reasonable attorneys' fees, which Abbott may hereinafter incur, suffer, or be required to pay arising out of or resulting from (a) any breach by HDC of the representations and warranties set forth in Paragraph 5.1 of this Agreement, and (b) any injury or other harm caused solely by HDC in carrying out its obligations pursuant to the Collaboration.

9.2 Abbott. Abbott shall indemnify, defend, and hold harmless HDC and its Affiliates, employees, officers, directors and agents from and against any suit, proceeding, claim, liability, loss, damage, costs or expense, including reasonable attorneys' fees, which HDC may hereinafter incur, suffer or be required to pay arising out of or resulting from (a) any breach by Abbott of the representations and warranties set forth in Paragraph 5.2 of this Agreement, and (b) any injury or other harm caused solely by Abbott in carrying out its obligations pursuant to the Collaboration.

9.3 Notice and Cooperation. With respect to any claim for which a party seeks indemnification from the other hereunder, the party seeking indemnification shall provide prompt notice to the other of the claim for which indemnification is sought, shall provide reasonable cooperation and assistance to the indemnifying party in the defense of such claim, and shall not settle or otherwise compromise such claim without the indemnifying party's prior written consent.

9.4 Termination of Indemnification Obligations. All obligations for indemnification on the part of parties hereto shall expire two (2) years from the date of termination of this Agreement, except with respect to claims for indemnification made prior to the end of such two (2) year period.

Article 10 - Miscellaneous

10.1 Notices. Any notice, report, payment or statement required or permitted under this Agreement shall be considered to be given in writing when sent by certified mail (return receipt requested), postage prepaid, or faxed then mailed, or if sent via courier and addressed to the party for whom it is intended at its address of record. The record addresses of the parties are as follows:

If to HDC:

Chairman and CEO
Health Discovery Corporation
2 East Bryan Street, Suite #601
Savannah, GA 31401
FAX: (912) 443-1989

with a copy to:
Procopio, Cory, Hargreaves & Savitch LLP
530 B Street, Suite 2100
San Diego, CA 92101
Fax: 619-744-5478
Attn: Eleanor M. Musick, Esq.

If to Abbott:

Director, Licensing & Business Development
Abbott Molecular Inc.
1300 E. Touhy Ave, 3C
Des Plaines, IL 60018-3315
Fax: (224) 361-7054

With a copy to:

VP, Domestic Legal
Abbott Laboratories
Dept. 322, Bldg. AP-6A
100 Abbott Park Road
Abbott Park, IL 60064-6049
Fax: (847) 938-1206

10.2 Compliance with Laws. The parties will comply with applicable laws in conducting the Collaboration, including, if applicable, any requirements for Institutional Review Board approval.

10.3 No Partnership. The parties do not intend to create any partnership, joint venture or agency relationship under this Agreement.

10.4 Use of a Party's Name. Neither party will, without the prior written consent of the other party, (a) use in advertising, publicity or otherwise, the name of any employee or agent, any trade-name, trademark, trade device, service mark, symbol, or any abbreviation, contraction or simulation thereof owned by the other party, or (b) represent, either directly or indirectly, that any product or service of the other party is a product or service of the representing party or that it is made in accordance with or utilizes the information or documents of the other party.

10.5 Entire Agreement. This Agreement and all attached Exhibits contain the entire agreement and understanding between the parties as to its subject matter. It merges all prior discussions between the parties and neither party will be bound by conditions, definitions, warranties, understandings, or representations concerning such subject matter except as provided in this Agreement or as specified on or subsequent to the Effective Date of this Agreement in a writing signed by properly authorized representatives of the parties. This Agreement may only be modified by written agreement duly signed by persons duly authorized on behalf of both HDC and Abbott.

10.6 Assignment. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their successors and assigns. Notwithstanding the foregoing, neither party may assign, delegate or otherwise transfer any of its rights or obligations under this Agreement without the prior written consent of the other party which will not be unreasonably withheld; provided, however, that either party may transfer its rights and obligations without the consent of the other party (a) upon a Change in Control, or (b) to any of its Affiliates provided that the assigning party guarantees the performance of its Affiliate.

10.7 Waiver. The failure of a party in any instance to insist upon the strict performance of the terms of this Agreement will not be construed to be a waiver or relinquishment of any of the terms of this Agreement, either at the time of the party's failure to insist upon strict performance or at any time in the future, and such terms will continue in full force and effect.

10.8 Severability. Each clause of this Agreement is a distinct and severable clause and if any clause is deemed illegal, void or unenforceable, the validity, legality or enforceability of any other clause or portion of this Agreement will not be affected thereby.

10.9 Governing Law. The rights and obligations of this Agreement will be governed and construed in accordance with the laws of the State of Delaware, United States of America (excluding and without regard to its or any other jurisdiction's rules concerning conflicts of laws).

10.10 Titles. All titles and articles headings contained in this Agreement are inserted only as a matter of convenience and reference. They do not define, limit, extend or describe the scope of this Agreement or the intent of any of its provisions.

10.11 Alternative Dispute Resolution. The parties recognize that a dispute as to certain matters (other than those specified in Exhibit E) may arise from time to time during the term of this Agreement which relates to either party's rights and/or obligations under this Agreement. The parties agree to resolve any such dispute exclusively according to the provisions set forth in Exhibit E. Notwithstanding the foregoing, any dispute between the parties relating to patent validity and enforceability shall not be resolved under this Paragraph 10.11, nor by any other form of alternative dispute resolution, but rather by litigation in U.S. Federal Court.

10.12 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall constitute an original, and all of which together shall constitute one and the same instrument.

In witness thereof, HDC and Abbott have duly executed this Agreement as of the Effective Date.

ABBOTT MOLECULAR INC.	HEALTH DISCOVERY CORPORATION
By /s/ Stafford O'Kelly	By /s/ Stephen D. Barnhill, M.D.
Stafford O'Kelly	Stephen D. Barnhill, M.D.
President	Chairman and CEO
Date January 30, 2009	Date January 30, 2009

Exhibit A

Patent(s) or Patent Application(s)

Country/Region	Patent/ Publication/ Application No.	Title
U.S.	7,117,188	Method of Identifying Patterns in Biological Systems and Uses Thereof
U.S.	12/025,724	Biomarkers Upregulated in Prostate Cancer
U.S.	12/242,264	Biomarkers Overexpressed in Prostate Cancer
U.S.	12/327,823	Methods for Screening, Predicting and Monitoring Prostate Cancer
U.S.	12/349,437	Methods for Screening, Predicting and Monitoring Prostate Cancer
Australia	2002253879	Methods of Identifying Patterns in Biological Systems and Uses Thereof
Canada	2,435,254	Method of Identifying Patterns in Biological Systems and Uses Thereof
Europe	1459235	Method of Identifying Patterns in Biological Systems and Uses Thereof
Japan	2002-560076	Method of Identifying Patterns in Biological Systems and Uses Thereof
Europe	1828917	Biomarkers for Screening, Predicting, and Monitoring Prostate Disease

Exhibit B

LICENSED PROSTATE MARKERS

Num	Archival Unigene ID	Current Unigene ID	Symbol	Affy probe	Pathway	Target Description
12337	Hs.7780	Hs.480311	DKFZp564	212412_at	Unknown	Consensus includes gb:AV715767 /FEA=EST /DB_XREF=gi:10797284 /DB_XREF= est:AV715767 /CLONE=DCBATH02 /UG=Hs.7780 Homo sapiens mRNA; cDNA DKFZp564A072 (from clone DKFZp564A072)
9373	Hs.21293	Hs.492859	UAP1/AGX-1	209340_at	Aminosugar metabolism	gb:S73498.1 /DEF=Homo sapiens AgX-1 antigen mRNA; complete cds. /FEA=mRNA /PROD=AgX-1 antigen /DB_XREF=gi:688010 /UG=Hs.21293 UDP-N-acteylglucosamine pyrophosphorylase 1 /FL=gb:AB011004.1 gb:NM_003115.1 gb:S73498.1
876	Hs.79037	Hs.476231	HSPD1	200807_s_at	Mitochondrial control of apoptosis	gb:NM_002156.1 /DEF=Homo sapiens heat shock 60kD protein 1 (chaperonin) (HSPD1); mRNA. /FEA=mRNA /GEN=HSPD1 /PROD=heat shock 60kD protein 1 (chaperonin) /DB_XREF=gi:4504520 /UG=Hs.79037 heat shock 60kD protein 1 (chaperonin) /FL=gb:BC002676.1 gb:BC003030.1 gb:M34664.1 gb:M22382.1 gb:NM_002156.1
1961		Hs.75432	IMPDH2	201892_s_at	de novo guanine nucleotide biosynthesis	gb:NM_000884.1 /DEF=Homo sapiens IMP (inosine monophosphate) dehydrogenase 2 (IMPDH2); mRNA. /FEA=mRNA /GEN=IMPDH2 /PROD=IMP (inosine monophosphate) dehydrogenase 2 /DB_XREF=gi:4504688 /UG=Hs.75432 IMP (inosine monophosphate) dehydrogenase 2 /FL=gb:J04208.1 gb:NM_000884.1

Exhibit C

FDA Submission Plan

Feasibility & Validation Studies

I. Costs and Performance Site for Phase 1 and 2:

Abbott and HDC agree to have the experimental testing of Phase 1 and 2 performed at *, with *, as the principal investigator. HDC is negotiating an experimental testing agreement in place with * that will cover the performance of Phase 1 and 2. HDC warrants that it will have the right under the agreement with * to transfer the data resulting from Phase 1 and 2 testing to Abbott and that Abbott will have the royalty-free right to use the data in any regulatory submission. Abbott shall be responsible for payment to HDC of *'s actual costs for performance of the Phase 1 and 2 experimental testing, up to a maximum of One-Hundred-Thousand Dollars ($100,000.00). HDC shall be responsible for payment to * of all costs in excess of the One-Hundred-Thousand Dollars ($100,000.00). Abbott shall make the payments to HDC within thirty (30) days of receipt of invoice from HDC, and HDC shall make the payment to * for any excess costs within thirty (30) days of receipt of notice from Abbott.

II. Phase 1 (expected duration 1.5 months): Develop an assay for the 4-gene prostate cancer test in prostate cancer cells present in urine.

The objective of this phase of the study is to develop the HDC 4-gene expression assay in urine. The assay may be done in up to four separate RT-PCR reactions or in one or more multiplex groupings. The urine sediment containing the tumor cells, obtained after centrifugation, will be extracted to obtain mRNA. Primers and probes for real time, RT-PCR assays will be developed by HDC for the 4 genes of interest and for 5 potential candidates to serve as the reference (housekeeping) genes. While the B2M was the most stable gene in the preliminary studies, a re-evaluation of all five gene candidates will be required. One or more may be selected as the reference gene(s) for the 4-gene assay. In this first phase of the study, prostate cancer cells obtained from tissue culture will be used, and preparations of tissue culture cells will be spiked into urine containing RNAse enzyme inhibitors.

The collection of patient urine, serum and tissue specimens for both Phase 1 and 2 will be initiated and the specimens properly stored beginning immediately upon IRB approval. This will allow specimen collection to be completed in advance of the start of Phase 2.

Phase 1 Feasibility Results Completion Standard:

The successful completion of Phase I will be the demonstration of "Feasibility" for the assay, and will be determined by Abbott in its sole discretion. Feasibility will be demonstrated by showing an ability of the assay to identify prostate cancer as present based on an elevated expression of the genes of interest in prostate cells in urine specimens compared to the background expression levels of the normal epithelial cells, using a cut-off that will have *% sensitivity and *% specificity.

III. Phase 2 (expected duration 2 months): Assess the utility of the 4-gene urine test for prostate cancer detection.

The objective of the Phase 2 validation study is to determine if the assay can detect cancer cells in urine from patients with prostate cancer with a high degree of sensitivity. Urine samples obtained from * patients with prostate cancer will be tested. The testing will be done on urine samples obtained pre and post prostatectomy. Greater than or equal to *% sensitivity on pre-op specimens is expected, with all urine positive patients becoming negative when tested one month post-prostatectomy.

A control group of * non-prostate cancer subjects will be tested in a similar fashion on two specimens collected one month apart. One control group of * subjects will be less than 30 years old and have a serum PSA value less than 1.0 ng/mL and the second control group will have serum PSA value greater than 2.5 ng/mL and less than 10ng/mL and will have had one previous negative biopsy. The HDC 4-gene test developed in Phase 1 will be performed on these patients before the second biopsy is performed. The result of the HDC 4-gene test will then be compared to the result of the second biopsy. Control subjects with low PSA are likely to have no prostatic enlargement, while subjects with PSA values greater than 2.5 ng/mL will likely have some degree of prostatic enlargement (BPH). All of the subjects in the control group with a PSA value less than 1ng/mL are expected to have negative results for the urine gene test. Greater than or equal to *% specificity is expected. Serum PSA testing will be performed on all subjects at each time of a urine collection.

For the * cancer subjects, the Gleason Score will be determined and the total tumor volume obtained from the prostatectomy tissue will be measured. The urine HDC 4-gene score for low grade (Gleason Score), low volume subjects as well as those with high grade, high volume cancers will be compared.

In addition, in the * cancer subjects, cancer cells from the formalin fixed tissue slide will be obtained by micro dissection after being carefully identified by the pathologist, and the assay tissue score will be compared with the respective assay urine score.

Phase 2 Results Completion Standard:

The successful completion of Phase 2 will be determined by Abbott in its sole discretion, and will be: (i) the demonstration of performance for the assay of sensitivity greater than or equal to *% and specificity greater than or equal to *%, and (ii) demonstration of informative test results for informative urine specimens collected without DRE (success rate) based on sufficient quantity of tumor mRNA for evaluation of greater than or equal to *%. Specificity will be reported against normal and BPH subjects.

IV. Phase 3 and 4 studies (below) will be initiated only upon the review and acceptance of Phase 1 & 2 as meeting the Result Completion Standards.

Costs and Performance Site for Phase 3 and 4:

Abbott at its sole discretion shall select the institution to perform the Phase 3 and 4 testing. Abbott shall be responsible for negotiating and signing the test performance agreement with the institution selected. Abbott shall be responsible for the costs of the selected institution for the performance of Phase 3 and 4.

V. Phase 3 (expected duration 1 month): Determine if DRE performed prior to collection of urine specimens will increase the sensitivity of prostate cancer detection.

The effect of the digital rectal examination to enhance the detection rate will be assessed using urine samples collected from * prostate cancer patients and * non-cancer patients. This data will determine if a random urine collection will give a 4-gene test result that is equivalent to a post-DRE sample.

Phase 3 Results Completion Standard:

Demonstrate a preferred method of urine specimen collection with a success rate (% informative) of greater than or equal to the success rate reported for competitor's assays (PCA3, *%)

Phase 4 (expected duration 4 Months): Specificity and Assay Optimization Studies

The optimal reaction conditions for the urine assay will be developed, and detection limits and the inter and intra precision for assay will be established.

Stability of the mRNA in urine tumor cells under various storage conditions, i.e. * and * will be determined and optimal urine collection and storage conditions will be defined.

With the optimized assay, a preliminary assessment or test specificity of the 4-gene urine test will be accomplished by a) assessing the interference of leukocytes in urine as a result of inflammation or by blood contamination of the urine sample by spiking negative and positive urine samples with leukocytes and b) assessing the tissue specificity of the assay by a survey of urine samples from * patients with cancer types that could interfere with the assay, such as bladder, kidney and others.

The mRNA or c-DNA from the phase 1-4 validation studies will be stored at - 70 degrees C for future use in validating any new RT-PCR platform which might be used in an FDA clearance study.

With the optimized assay, detection of tumors with a range of Gleason scores, stages, and various patient characteristics (age, ethnic characteristic) will be evaluated.

Phase 4 Results Completion Standard:

1) The test should demonstrate no cross-reactivity with cancer types that could interfere with the assay, such as bladder, kidney and others.
2) The test should demonstrate reproducible performance under specimen storage/shipping conditions compatible with standard laboratory workflow.
3) The test should demonstrate utility in a range of patient populations and tumor characteristics (grade, stage) with a sensitivity and specificity each greater than or equal to *%.

FDA Submission Study

To be developed and performed by Abbott after successful completion of the Phase 1 through 4 Studies above.

Exhibit D

Co-Exclusive Licensees

HDC has granted or intends to grant to the following companies co-exclusive licenses in the indicated Territories and Fields to perform, use, market and sell Laboratory Developed Tests based on the Licensed Prostate Markers:

Quest Diagnostics, Inc. (Madison, NJ):
Territory: United States of America, its territories and possessions.
Field: Laboratory Developed Tests in urine

Clarient, Inc.(Aliso Viejo, CA):
Territory: Worldwide
Field: Laboratory Developed Tests in biopsied prostate tissue

Exhibit E

Alternative Dispute Resolution

The parties recognize that bona fide disputes as to certain matters may arise from time to time during the term of this Agreement which relate to either party's rights and/or obligations. To have such a dispute resolved by this Alternative Dispute Resolution ("ADR") provision, a party first must send written notice of the dispute to the other party for attempted resolution by good faith negotiations between their respective presidents (or their designees) of the affected subsidiaries, divisions, or business units within twenty-eight (28) days after such notice is received (all references to "days" in this ADR provision are to calendar days).

If the matter has not been resolved within twenty-eight (28) days of the notice of dispute, or if the parties fail to meet within such twenty-eight (28) days, either party may initiate an ADR proceeding as provided herein. The parties shall have the right to be represented by counsel in such a proceeding.

1. To begin an ADR proceeding, a party shall provide written notice to the other party of the issues to be resolved by ADR. Within fourteen (14) days after its receipt of such notice, the other party may, by written notice to the party initiating the ADR, add additional issues to be resolved within the same ADR.

2. Within twenty-one (21) days following receipt of the original ADR notice, the parties shall select a mutually acceptable neutral to preside in the resolution of any disputes in this ADR proceeding. If the parties are unable to agree on a mutually acceptable neutral within such period, either party may request the President of the CPR Institute for Dispute Resolution ("CPR"), 366 Madison Avenue, 14th Floor, New York, New York 10017, to select a neutral pursuant to the following procedures:

    (a) The CPR shall submit to the parties a list of not less than five (5) candidates within fourteen (14) days after receipt of the request, along with a *Curriculum Vitae* for each candidate. No candidate shall be an employee, director or shareholder of either party or any of their subsidiaries or affiliates.

    (b) Such list shall include a statement of disclosure by each candidate of any circumstances likely to affect his or her impartiality.

    (c) Each party shall number the candidates in order of preference (with the number one (1) signifying the greatest preference) and shall deliver the list to the CPR within seven (7) days following receipt of the list of candidates. If a party believes a conflict of interest exists regarding any of the candidates, that party shall provide a written explanation of the conflict to the CPR along with its list showing its order of preference for the candidates. Any party failing to return a list of preferences on time shall be deemed to have no order of preference.

(d) If the parties collectively have identified fewer than three (3) candidates deemed to have conflicts, the CPR immediately shall designate as the neutral the candidate for whom the parties collectively have indicated the greatest preference. If a tie should result between two candidates, the CPR may designate either candidate. If the parties collectively have identified three (3) or more candidates deemed to have conflicts, the CPR shall review the explanations regarding conflicts and, in its sole discretion, may either (i) immediately designate as the neutral the candidate for whom the parties collectively have indicated the greatest preference, or (ii) issue a new list of not less than five (5) candidates, in which case the procedures set forth in subparagraphs 2(a) - 2(d) shall be repeated.

3. No earlier than twenty-eight (28) days or later than fifty-six (56) days after selection, the neutral shall hold a hearing to resolve each of the issues identified by the parties. The ADR proceeding shall take place at a location agreed upon by the parties. If the parties cannot agree, the neutral shall designate a location other than the principal place of business of either party or any of their subsidiaries or affiliates.

4. At least seven (7) days prior to the hearing, each party shall submit the following to the other party and the neutral:

(a) a copy of all exhibits on which such party intends to rely in any oral or written presentation to the neutral;

(b) a list of any witnesses such party intends to call at the hearing, and a short summary of the anticipated testimony of each witness;

(c) a proposed ruling on each issue to be resolved, together with a request for a specific damage award or other remedy for each issue. The proposed rulings and remedies shall not contain any recitation of the facts or any legal arguments and shall not exceed one (1) page per issue.

(d) a brief in support of such party's proposed rulings and remedies, provided that the brief shall not exceed twenty (20) pages. This page limitation shall apply regardless of the number of issues raised in the ADR proceeding.

Except as expressly set forth in subparagraphs 4(a) - 4(d), no discovery shall be required or permitted by any means, including depositions, interrogatories, requests for admissions, or production of documents.

5. The hearing shall be conducted on two (2) consecutive days and shall be governed by the following rules:

(a) Each party shall be entitled to five (5) hours of hearing time to present its case. The neutral shall determine whether each party has had the five (5) hours to which it is entitled.

(b) Each party shall be entitled, but not required, to make an opening statement, to present regular and rebuttal testimony, documents or other evidence, to cross-examine witnesses, and to make a closing argument. Cross-examination of witnesses shall occur immediately after their direct testimony, and cross-examination time shall be charged against the party conducting the cross-examination.

(c) The party initiating the ADR shall begin the hearing and, if it chooses to make an opening statement, shall address not only issues it raised but also any issues raised by the responding party. The responding party, if it chooses to make an opening statement, also shall address all issues raised in the ADR. Thereafter, the presentation of regular and rebuttal testimony and documents, other evidence, and closing arguments shall proceed in the same sequence.

(d) Except when testifying, witnesses shall be excluded from the hearing until closing arguments.

(e) Settlement negotiations, including any statements made therein, shall not be admissible under any circumstances. Affidavits prepared for purposes of the ADR hearing also shall not be admissible. As to all other matters, the neutral shall have sole discretion regarding the admissibility of any evidence.

6. Within seven (7) days following completion of the hearing, each party may submit to the other party and the neutral a post-hearing brief in support of its proposed rulings and remedies, provided that such brief shall not contain or discuss any new evidence and shall not exceed ten (10) pages. This page limitation shall apply regardless of the number of issues raised in the ADR proceeding.

7. The neutral shall rule on each disputed issue within fourteen (14) days following completion of the hearing. Such ruling shall adopt in its entirety the proposed ruling and remedy of one of the parties on each disputed issue but may adopt one party's proposed rulings and remedies on some issues and the other party's proposed rulings and remedies on other issues. The neutral shall not issue any written opinion or otherwise explain the basis of the ruling.

8. The neutral shall be paid a reasonable fee plus expenses. These fees and expenses, along with the reasonable legal fees and expenses of the prevailing party (including all expert witness fees and expenses), the fees and expenses of a court reporter, and any expenses for a hearing room, shall be paid as follows:

(a) If the neutral rules in favor of one party on all disputed issues in the ADR, the losing party shall pay 100% of such fees and expenses.

(b) If the neutral rules in favor of one party on some issues and the other party on other issues, the neutral shall issue with the rulings a written determination as to how such fees and expenses shall be allocated between the parties. The neutral shall allocate fees and expenses in a way that bears a reasonable relationship to the outcome of the ADR, with the party prevailing on more issues, or on issues of greater value or gravity, recovering a relatively larger share of its legal fees and expenses.

9. The rulings of the neutral and the allocation of fees and expenses shall be binding, non-reviewable, and non-appealable, and may be entered as a final judgment in any court having jurisdiction.

10. Except as provided in paragraph 9 or as required by law, the existence of the dispute, any settlement negotiations, the ADR hearing, any submissions (including exhibits, testimony, proposed rulings, and briefs), and the rulings shall be deemed Confidential Information. The neutral shall have the authority to impose sanctions for unauthorized disclosure of Confidential Information.

11. All disputes referred to ADR, the statute of limitations, and the remedies for any wrong that may be found, shall be governed by the laws of the State of Illinois.

12. The neutral may not award punitive damages. The parties hereby waive the right to punitive damages.

13. The hearings shall be conducted in the English language.

EXHIBIT 10.15

FORM OF SERIES B SECURITIES PURCHASE AGREEMENT

THIS SECURITIES PURCHASE AGREEMENT (this "Agreement") is made as of the ____ day of March, 2009, by and among **HEALTH DISCOVERY CORPORATION**, a Georgia corporation (the "Company"), and the investors listed on Schedule A hereto (the "Purchasers").

WHEREAS, the Company and the Purchasers are executing and delivering this Agreement in reliance upon the exemption from securities registration afforded by Rule 506 under Regulation D as promulgated by the United States Securities and Exchange Commission (the "Commission") under Section 4(2) of the Securities Act of 1933, as amended (the "Securities Act");

WHEREAS, subject to the terms and conditions set forth in this Agreement, the Company desires to issue and sell to the Purchasers, and the Purchasers desires to purchase from the Company, shares (the "Shares") of Series B Preferred Stock of the Company, no par value (the "Preferred Stock");

WHEREAS, this Agreement and the sale of the Shares to the Purchasers is a part of a private offering (the "Offering") with an aggregate minimum gross proceeds of at least $100,000.00 (the "Minimum Amount").

NOW, THEREFORE, in consideration of the promises and mutual covenants and agreements herein, the Company and the Purchasers hereby agree as follows:

ARTICLE I.
PURCHASE AND SALE

1.1 Purchase and Sale. Subject to the terms and conditions set forth herein, the Company shall issue and sell to each Purchaser, and each Purchaser, severally and not jointly, agrees to purchase from the Company, at the Closing (as defined below) that number of Shares set forth opposite the Purchaser's name on Schedule A for the amount set forth on such Schedule (the "Purchase Price").

1.2 Closing.

a. The Closing. The initial closing (the "Initial Closing" or the "Closing") of the purchase and sale of the Shares shall take place on March ___, 2009, or such other time as the Company and the Purchasers shall otherwise agree (the "Closing Date").

b. Purchasers' Deliveries at Closing. At each Closing, each Purchaser must deliver to the Company the following:

(i) a copy of this Agreement, duly executed by such Purchaser,

(ii) a completed Purchaser Questionnaire in for form of Exhibit A, attached hereto; and

(iii) the Purchase Price to be paid by wire transfer, bank check or money order.

c. Company Deliveries at Closing. At the Closing, the Company shall deliver to each Purchaser (at each Purchaser's address listed on the signature page of this Agreement):

(i) one copy of this Agreement, duly executed by the Company, and

(ii) a certificate evidencing the Shares registered in the books and records of the Company in the name of each Purchaser or the Purchaser's nominee.

1.3 Sale of Additional Shares.

a. After the Initial Closing, the Company may sell, on the same terms and conditions as those contained in this Agreement (subject to equitable and proportional adjustment in the event of any stock dividend, stock split, reverse stock dividend or reverse stock split, or any capital reorganization or recapitalization or similar event affecting the common stock of the Company, which becomes effective after the date of this Agreement and on or before the Closing Date), additional shares of Series B Preferred Stock (the "Additional Shares") to one or more purchasers (the "Additional Purchasers") in one or more subsequent closings provided that (i) such subsequent sales, together with the sales to the Purchasers, do not result in gross proceeds to the Company of greater than $1,100,000 (the "Maximum Amount"), (ii) such subsequent sales are consummated on or prior to December 31, 2009, and (iii) each Additional Purchaser shall become a party to this Agreement, as defined below, by executing and delivering a counterpart signature page to this Agreement. Schedule A to this Agreement shall be updated to reflect the number of Additional Shares purchased at each such Closing and the parties purchasing such Additional Shares.

b. Prior to the Initial Closing, Additional Purchasers may, with the written consent of the Company, become a party to this Agreement by executing and delivering a counterpart signature page to this Agreement, in which event (i) such Additional Purchasers will purchase their Additional Shares at the Initial Closing and (ii) Schedule A to this Agreement will be updated to reflect the number of Additional Shares purchased and the parties purchasing such Additional Shares. Notwithstanding the foregoing, any Additional Purchasers may not become a party to this Agreement to the extent his, her or its purchase of Additional Shares at the Initial Closing would result in the aggregate Purchase Price for total sales of Shares to all Purchasers in the Offering in an amount exceeding the Maximum Amount.

ARTICLE II.
REPRESENTATIONS AND WARRANTIES

2.1 Representations and Warranties of the Company. The Company represents and warrants to the Purchasers that, to its knowledge, the statements contained in this Section 2.1 are true, correct and complete, in all material respects, as of the date of this Agreement, and will be true correct and complete, in all material respects, as of the Closing Date.

a. Organization and Qualification. The Company is duly incorporated, validly existing and in good standing under the laws of the State of Georgia, with the requisite corporate power and authority to carry on its business as currently conducted. The Company is duly qualified as a foreign corporation to do business and is in good standing as a foreign corporation in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, would not, individually or in the aggregate, (x) adversely affect the legality, validity or enforceability of this Agreement or any of the transactions contemplated hereby, (y) have or result in a material adverse effect on the condition (financial or otherwise), business, operations, results of operations, assets, capitalization, financial condition, licenses, permits, rights or privileges (whether contractual or otherwise) or prospects of the Company, taken as a whole, or (z) impair the Company's ability to perform fully on a timely basis its obligations hereunder (an effect caused by or change resulting from any event or circumstance described in clause (x), (y) or (z), being a "Material Adverse Effect"). The Company has made available to the Purchasers true and correct copies of the Company's Articles of Incorporation, as in effect on the date of this Agreement (the "Articles of Incorporation"), and the Company's Bylaws, as in effect on the date of this Agreement (the "Bylaws").

b. Authorization; Enforcement. The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement and otherwise to carry out its obligations hereunder. The execution and delivery of this Agreement by the Company and the consummation by it of the transactions contemplated hereby have been duly authorized by all necessary corporate action by the Company. This Agreement has been duly executed by the Company and when delivered in accordance with the terms hereof will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, liquidation or similar laws relating to, or affecting generally the enforcement of, creditors' rights and remedies or by other equitable principles of general application and except that rights to indemnification and contribution may be limited by federal or state securities laws or public policy relating thereto.

c. Capitalization. As of the date of this Agreement, the authorized capital stock of the Company consists of 300,000,000 shares of Common Stock, of which 169,522,590 shares are issued and outstanding, 30,000,000 shares of preferred stock, of which 7,437,184 shares are issued and outstanding and designated "Series A Preferred Stock," and 13,750,000 shares will be designated "Series B Preferred Stock," and options and warrants to acquire 126,277,644 shares of Common Stock have been granted and remain outstanding. Except as described in Section 2.1(c) of the attached Disclosure Schedule, no Person (as hereinafter defined) has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by this Agreement. The issuance and sale of the Shares will not obligate the Company to issue shares of Common Stock or other securities to any Person (other than the Purchasers) and will not result in a right of any holder of Company securities to adjust the exercise, exchange, conversion or reset price under such securities.

d. Authorization and Validity; Issuance of Shares. The Shares are duly authorized and, when issued and paid for in accordance with this Agreement, will be validly issued, fully paid and non-assessable, free and clear of all liens.

e. No Conflicts. The execution, delivery and performance of this Agreement by the Company and the consummation by the Company of the transactions contemplated hereby do not and will not (i) conflict with or violate any provision of the Articles of Incorporation, Bylaws or other organizational documents of the Company, (ii) subject to obtaining the consents referred to in Section 2.1(f), conflict with, or constitute a default (or an event which with notice or lapse of time or both would become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, indenture, patent, patent license or instrument to which the Company is a party or by which any property or asset of the Company is bound or affected, or (iii) result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company is subject or by which any material property or asset of the Company is bound.

f. Consents and Approvals. The Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority, regulatory or self regulatory agency, or other Person in connection with the execution, delivery and performance by the Company of this Agreement, other than (i) any required application(s) or any letter(s) acceptable to the Over-the-Counter Bulletin Board ("OTCBB"), and (ii) any filings, notices or registrations under applicable federal or state securities laws (the "Required Approvals"), except where failure to do so has not resulted or would not reasonably result, individually, or in the aggregate, in a Material Adverse Effect. "Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

g. Litigation; Proceedings. Except as specifically set forth on in the SEC Documents or Section 2.1(g) of the attached Disclosure Schedule there is no action, suit, notice of violation, proceeding or investigation pending or threatened against or affecting the Company or any of its subsidiaries or any of their respective properties before or by any court, governmental or administrative agency or regulatory authority (collectively, an "Action") which (i) adversely affects or challenges the legality, validity or enforceability of any of this Agreement, or (ii) would reasonably be expected to, individually or in the aggregate, have a Material Adverse Effect. There has not been, and there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director that was a director of the Company at any time during the last three years or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company or any subsidiary under the Exchange Act of 1934, as amended (the "Exchange Act") or the Securities Act.

h. No Default or Violation. The Company (i) is not in default under or in violation of any indenture, loan or other credit agreement or any other agreement or instrument to which it is a party or by which it or any of its properties is bound and which is required to be included as an exhibit to any SEC Document, (ii) is not in violation of any order of any court, arbitrator or governmental body applicable to it, (iii) is not in violation of any statute, rule or regulation of any governmental authority to which it is subject, (iv) is not in default under or in violation of its Articles of Incorporation, Bylaws or other organizational documents, respectively in the case of (i), (ii) and (iii), except where such violations have not resulted or would not reasonably result, individually or in the aggregate, in a Material Adverse Effect.

i. SEC Documents; Financial Statements. Since January 1, 2007, the Company has filed all reports, schedules, forms, statements and other documents required to be filed by it, with the Commission, pursuant to Section 13, 14 or 15(d) of the Exchange Act (collectively referred to herein as the "SEC Documents"). As of their respective dates, the SEC Documents complied in all material respects with the requirements of the Securities Act and the Exchange Act and the rules and regulations of the Commission promulgated thereunder applicable to such SEC Document. Except to the extent that information contained in any SEC Document filed and publicly available prior to the date of this Agreement has been revised or superseded by a later filed SEC Document, which later filed SEC Document was filed prior to the date of this Agreement, none of the SEC Documents, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Documents comply as to form in all material respects with applicable accounting requirements and the published rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements fairly present in all material respects the financial position of the Company as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, year-end audit adjustments.

j. Material Changes. Since the date of the latest audited financial statements included within the SEC Documents, except as specifically disclosed in the SEC Documents, (i) there has been no event, occurrence or development that has had a Material Adverse Effect, (ii) the Company has not incurred any liabilities other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice, and (B) liabilities not required to be reflected in the Company's financial statements pursuant to GAAP or required to be disclosed in filings made with the Commission, (iii) the Company has not altered its method of accounting or the identity of its auditors, and (iv) the Company has not declared or made any dividend or distribution of cash or other property to its shareholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock.

k. Listing and Maintenance Requirements. The Company has not, in the two years preceding the date of this Agreement, received notice from the OTCBB or any other exchange or market on which the Common Stock is or has been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such exchange or market. The Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements of the OTCBB. The issuance and sale of the Shares hereunder does not contravene the rules and regulations of the OTCBB and approval of the shareholders of the Company is not required for the Company to issue and deliver to the Purchasers the number of Shares contemplated by this Agreement.

l. Broker's Fees. The Purchasers shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of any broker, finder or other intermediary retained by the Company that may be due in connection with the transactions contemplated by this Agreement.

2.2 Representations, Warranties and Covenants of the Purchasers.

a. Purchasers Status. Purchasers represent and warrant to, and covenants with, the Company that: (i) each Purchaser is an "accredited investor" as defined in Regulation D under the Securities Act, and each Purchaser is also knowledgeable, sophisticated and experienced in making, and is qualified to evaluate the risks and merits and make decisions with respect to investments in securities presenting an investment decision like that involved in the purchase of the Shares, including investments in securities issued by the Company and investments in comparable companies, and has requested, received, reviewed and considered all information it deemed relevant in making an informed decision to purchase the Shares and is able to bear the risks of this investment; (ii) each Purchaser is acquiring the Shares in the ordinary course of its business and for its own account for investment only and not with a view to, or for resale in connection with, any distribution thereof within the meaning of the Securities Act; (iii) each Purchaser will not, directly or indirectly, offer, sell, pledge, transfer or otherwise dispose of (or solicit any offers to buy, purchase or otherwise acquire or take a pledge of) any of the Shares except in compliance with the Securities Act, applicable state securities laws and the respective rules and regulations promulgated thereunder; (iv) each Purchaser has, in connection with its decision to purchase the Shares, relied only upon the SEC Documents and the representations and warranties of the Company contained herein, (v) each Purchaser has answered all questions on the Investor Questionnaire and the answers thereto are true, correct and complete in all material respects as of the date hereof and will be true, complete and correct in all material respects as of the Closing Date; and (vi) each Purchaser will notify the Company immediately of any material change in any of such information until the Closing. Purchasers understands that its acquisition of the Shares has not been registered under the Securities Act or registered or qualified under any state securities law in reliance on specific exemptions therefrom, which exemptions may depend upon, among other things, the bona fide nature of the Purchasers' investment intent as expressed herein, and the Company is not required and never intends to so register the Shares.

b. Resale Restrictions. Each Purchaser hereby covenants with the Company not to make any sale of the Shares without complying with the provisions of this Agreement and without satisfying all requirement of an applicable exemption under the Securities Act for such sale. Each Purchaser acknowledges that the Shares will be imprinted with the following legend that prohibits their transfer except in accordance therewith:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS AS EVIDENCED BY A LEGAL OPINION OF COUNSEL TO THE TRANSFEROR TO SUCH EFFECT, THE SUBSTANCE OF WHICH SHALL BE REASONABLY ACCEPTABLE TO THE COMPANY.

c. Short Position. Each Purchaser hereby covenants with the Company not to use any of the Shares acquired pursuant to this Agreement to cover any short position in the Common Stock of the Company if doing so would be in violation of applicable securities laws.

d. No Advice. Each Purchaser understands that nothing in the SEC Documents, this Agreement or any other materials presented to the Purchasers in connection with the purchase and sale of the Shares constitutes legal, tax or investment advice. Each Purchaser has consulted such legal, tax and investment advisors as it, in its sole discretion, has deemed necessary or appropriate in connection with its purchase of the Shares.

e. Organization; Authority. Each Purchaser is either an individual residing in the state as set forth on the signature page of this Agreement, or a corporation, limited liability company or limited partnership duly formed, validly existing and in good standing under the laws of the jurisdiction of its incorporation or formation with the requisite power and authority to enter into and to consummate the transactions contemplated by this Agreement and to carry out the obligations hereunder. The purchase by Purchasers of the Shares hereunder has been duly authorized by all necessary action on the part of the Purchasers. This Agreement has been duly executed and delivered by each Purchaser and constitutes the valid and legally binding obligation of each Purchaser, enforceable against each Purchaser in accordance with its terms, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability relating to or affecting creditors' rights generally and to general principles of equity and except that rights to indemnification and contribution may be limited by federal or state securities laws or public policy relating thereto.

f. Risk. Each Purchaser has carefully reviewed and understands the risks of, and other considerations relating to, the purchase of the Shares, and an investment in the Company. Each Purchaser has adequate means of providing for its current needs and possible future contingencies, and each Purchaser has no need, and anticipates no need in the foreseeable future, to sell or otherwise transfer the Shares. Each Purchaser is able to bear the economic risks of this investment and, consequently, without limiting the generality of the foregoing, each Purchaser is able to hold the Shares for an indefinite period of time and has sufficient net worth to sustain a loss of its entire investment in the Company if such loss should occur. Each Purchaser understands that the purchase of the Shares is a highly speculative investment, which involves a high degree of risk of loss of each Purchaser's entire investment therein.

g. Reliance. Each Purchaser understands and acknowledges that (i) the Shares are being offered and sold to the Purchasers without registration under the Securities Act in a private placement that is exempt from the registration provisions of the Securities Act under Section 4(2) of the Securities Act or Regulation D promulgated thereunder, and (ii) the availability of such exemption depends in part on, and the Company will rely upon the accuracy and truthfulness of, the representations set forth in this Section 2.2, including, without limitation, the accredited investor status and the investment intent of the Purchasers, and each Purchaser hereby consents to such reliance.

h. Information. Each Purchaser and its advisors, if any, have been furnished with all materials relating to the business, finances and operations of the Company and materials relating to the offer and sale of the Shares which have been requested by Purchasers or its advisors. Each Purchaser and its advisors, if any, have been afforded the opportunity to ask questions of the Company and receive answers concerning the terms and conditions of the offering and obtain any additional information, which the Company possesses or can acquire without unreasonable effort or expense, that is necessary to verify the accuracy of any representations or information set forth in any such material. Representatives of the Company have adequately answered all inquiries that the Purchasers have made of them concerning the Company or any other matters relating to the operation of the Company and sale of the Shares.

i. Taxes. Each Purchaser is aware that the Company and its representatives assume no responsibility for the tax consequences to the Purchasers of any investment in the Company.

j. No Representation or Promise. No one has ever represented or promised expressly or by implication, any of the following: (i) the approximate or exact length of time that Purchasers will be required to remain as owner of the Shares, (ii) the amount or type of profit, or loss (including tax write-offs and/or tax benefits) to be realized, if any, as a result of the Purchasers' investment, or (iii) that the past performance or experience of the officers or directors of the Company or any affiliate, their associates, agents, or employees or of any other person gives any assurance that the Company will be a success.

k. Offering Literature; No Advertisement. No Purchaser has been furnished any offering literature other than, and has relied only on the information contained in, (i) the SEC Documents, and (ii) this Agreement, including the exhibits and schedules thereto. No Purchaser is purchasing the Shares as a result of, or subsequent to, any advertisement, article, notice or other communication published in any newspaper, magazine or similar media or broadcast over television or radio or presented at any seminar or meeting in which representatives of the Company were in attendance.

l. Governmental Review. Each Purchaser understands that no United States federal or state agency or any other government or governmental agency has passed upon or made any recommendation or endorsement of the Shares.

ARTICLE III.
CONDITIONS

3.1 Closing.

a. Conditions Precedent to the Obligation of the Company to Sell the Shares. The obligation of the Company to sell the Shares is subject to the satisfaction or waiver by the Company, at or before the Closing Date, of each of the following conditions:

(i) the representations and warranties of the Purchasers in this Agreement shall be true and correct in all material respects as of the date when made and as of the Closing Date;

(ii) the Purchasers shall have performed, satisfied and complied in all material respects with all covenants, agreements and conditions required by this Agreement to be performed, satisfied or complied with by the Purchasers at or before the Closing Date; and

(iii) no statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or endorsed by any court or governmental authority of competent jurisdiction which prohibits the consummation of any of the transactions contemplated by this Agreement.

b. Conditions Precedent to the Obligation of the Purchasers to Purchase the Shares. The obligation of the Purchasers hereunder to acquire and pay for the Shares at the Closing is subject to the satisfaction or waiver by the Purchasers, at or before the Closing Date, of each of the following conditions:

(i) the representations and warranties of the Company set forth in this Agreement shall be true and correct in all material respects as of the date when made and as of the Closing Date;

(ii) the Company shall have performed, satisfied and complied in all material respects with all covenants, agreements and conditions required by this Agreement to be performed, satisfied or complied with by the Company at or before the Closing Date;

(iii) no statute, rule, regulation, executive order, decree, ruling or injunction shall have been enacted, entered, promulgated or endorsed by any court or governmental authority of competent jurisdiction which prohibits the consummation of any of the transactions contemplated by this Agreement;

(iv) all Required Approvals shall have been obtained;

(v) delivery of all items deliverable under Section 1.2(c);

(vi) no Material Adverse Effect shall have occurred or been threatened (and no condition, event or development shall have occurred or been threatened involving a prospective Material Adverse Effect) in respect of the Company or any of its subsidiaries between the date of this Agreement and the Closing Date; and

(vii) the sales to the Purchasers hereunder shall not result in gross cash proceeds to the Company in excess of the Maximum Amount.

ARTICLE IV.
INDEMNIFICATION & CONFIDENTIALITY

4.1 Indemnification.

a. By the Company. The Company will indemnify and hold Purchasers harmless from any and all losses, liabilities, obligations, claims, contingencies, damages, costs and expenses, including all judgments, amounts paid in settlements, court costs and reasonable attorneys' fees and costs of investigation that Purchasers may suffer or incur as a result of or relating to any misrepresentation, breach or inaccuracy, or any allegation by a third party that, if true, would constitute a breach or inaccuracy, of any of the representations, warranties, covenants or agreements made by the Company in this Agreement; provided, however, that any and all payments made or due to a Purchaser by the Company as a result of the obligations of this Section 4.1 shall be limited to, and in no case shall exceed, the Purchase Price paid by such Purchaser, as stated in Section 1.1 herein.

b. By the Purchasers. Purchasers will indemnify and hold the Company harmless from any and all losses, liabilities, obligations, claims, contingencies, damages, costs and expenses, including all judgments, amounts paid in settlements, court costs and reasonable attorneys' fees and costs of investigation that the Company may suffer or incur as a result of or relating to any misrepresentation, breach or inaccuracy, or any allegation by a third party that, if true, would constitute a breach or inaccuracy, of any of the representations, warranties, covenants or agreements made by such Purchasers in this Agreement; provided, however, that any and all payments, in the aggregate, made or due by such Purchasers as a result of the obligations of this Section 4.1 shall be limited to, and in no case shall exceed, the amount of the Purchase Price (but no credit shall be granted for such payment for any obligation of the Purchasers pursuant to this Section 4.1) paid by such Purchaser, as stated in Section 1.1 herein.

4.2 Confidential Information. Purchasers represents to the Company that, at all times during the Company's offering of the Shares, the Purchasers have maintained in confidence and have not used except in connection with its purchase of the Shares pursuant hereto, all non-public information regarding the Company received by the Purchasers from the Company or its agents ("Confidential Information"), and covenants that it will continue to maintain in confidence such information until such information becomes generally publicly available other than through a violation of this provision by the Purchasers or its agents. If Purchasers are required to disclose any Confidential Information in legal proceedings (such as by deposition, interrogatory, request for documents, subpoena, civil investigation demand, filing with any governmental authority or similar process) Purchasers may do so without violating this Agreement; provided, however, that before making any use or disclosure in reliance on this paragraph the Purchasers shall give the Company at least fifteen (15) days prior written notice (or such shorter period as required by law) specifying the circumstances giving rise thereto and will furnish only that portion of the Confidential Information which is legally required and will exercise its best efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

ARTICLE V.
MISCELLANEOUS

5.1 Entire Agreement. This Agreement, together with the Schedules and Exhibits hereto, contain the entire understanding of the parties with respect to the subject matter hereof and supersedes all prior agreements and understandings, oral or written, with respect to such matters.

5.2 Notices. Whenever it is provided herein that any notice, demand, request, consent, approval, declaration or other communication shall or may be given to any of the parties by another, or whenever any of the parties desires to give another any such communication with respect to this Agreement, each such notice, demand, request, consent, approval, declaration or other communication shall be in writing, and shall be delivered in person with receipt acknowledged or by registered or certified mail, return receipt requested, postage prepaid, or by telecopy and confirmed by telecopy answerback addressed as follows:

If to the Company:

Health Discovery Corporation
2 East Bryan Street, Suite #601
Savannah, GA 31401
Attn: Stephen D. Barnhill, M.D.
Facsimile: (912) 443-1989

With a Copy to:

Bryan Cave LLP
1201 W. Peachtree Street, N.E., 14th Floor
Atlanta, Georgia 30309
Attn: Todd Wade, Esq.
Facsimile: (404) 572-6999

If to the Purchasers:

To the addresses listed on the signature pages of this Agreement.

or at such other address as may be substituted by notice given as herein provided. The giving of any notice required hereunder may be waived in writing by the party entitled to receive such notice. Every notice, demand, request, consent, approval, declaration or other communication hereunder shall be deemed to have been duly given and effective on the earliest of (a) the date of transmission, if such notice or communication is delivered via facsimile prior to 5:30 p.m. (New York City time) on a business day, (b) the next business day after the date of transmission, if such notice or communication is delivered via facsimile on a day that is not a business day or later than 5:30 p.m. (New York City time) on any business day, (c) the business day following the date of mailing, if sent by a U.S. nationally recognized overnight courier service, or (d) upon actual receipt by the party to whom such notice is required to be given. As used herein, a "business day" means any day except Saturday, Sunday or a day which is a federal legal holiday or a day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

5.3 Amendments; Waivers. No provision of this Agreement may be waived or amended except in a written instrument signed, in the case of an amendment, by both the Company and the Purchasers or, in the case of a waiver, by the party against whom enforcement of any such waiver is sought. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of either party to exercise any right hereunder in any manner impair the exercise of any such right accruing to it thereafter.

5.4 Headings. The headings herein are for convenience only, do not constitute a part of this Agreement, and shall not be deemed to limit or affect any of the provisions hereof.

5.5 Successors and Assigns; Assignability; No Third-Party Beneficiaries. Neither this Agreement nor any right, remedy, obligation or liability arising hereunder, or by reason hereof, shall be assignable by the Purchasers without the prior written consent of the Company; provided, however, that each Purchaser may assign any of its rights under this Agreement to any of its affiliates. If this Agreement is assigned, all covenants contained herein shall bind and inure to the benefit of the parties hereto and their respective successors and assigns. This Agreement is intended for the benefit of the parties hereto and their respective permitted successors and assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person.

5.6 Governing Law; Waiver of Jury Trial. All questions concerning the construction, validity, enforcement and interpretation of this Agreement shall be governed by and construed and enforced in accordance with the internal laws of the State of Georgia, without regard to the principles of conflicts of law thereof. Each party agrees that all proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Agreement (whether brought against a party hereto or its respective affiliates, directors, officers, shareholders, employees or agents) (each a "Proceeding") shall be commenced exclusively in the state and federal courts sitting in the Atlanta, Georgia. Each party hereto hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the Atlanta, Georgia for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any Proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such Proceeding is improper. Each party hereto hereby irrevocably waives personal service of process and consents to process being served in any such Proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Each party hereto hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Agreement or the transactions contemplated hereby. If either party shall commence a Proceeding to enforce any provisions of this Agreement, then the prevailing party in such Proceeding shall be reimbursed by the other party for its attorney's fees and other costs and expenses incurred with the investigation, preparation and prosecution of such Proceeding.

5.7 Survival. The representations, warranties, agreements and covenants contained herein shall survive following the Closing.

5.8 Counterparts; Execution. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same instrument. In the event that any signature is delivered by facsimile transmission, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile signature page were an original thereof.

5.9 Publicity. The Purchasers shall not issue any press release or make any public disclosure regarding the transactions contemplated hereby unless such press release or public disclosure is approved by the Company in advance. Notwithstanding the foregoing, each of the parties hereto may, in documents required to be filed by it with the SEC or other regulatory bodies, make such statements with respect to the transactions contemplated hereby as each may be advised by counsel is legally necessary or advisable, and may make such disclosure as it is advised by its counsel is required by law.

5.10 Severability. In case any one or more of the provisions of this Agreement shall be invalid or unenforceable in any respect, the validity and enforceability of the remaining terms and provisions of this Agreement shall not in any way be affected or impaired thereby and the parties will attempt to agree upon a valid and enforceable provision which shall be a reasonable substitute thereof, and upon so agreeing, shall incorporate such substitute provision in this Agreement.

5.11 Further Assurances. Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents, as the other party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

5.12 Remedies. In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, the Purchasers and the Company will be entitled to specific performance under this Agreement. The parties agree that monetary damages will not be adequate compensation for any loss incurred by reason of any breach of obligations described in the foregoing sentence and hereby agree to waive in any action for specific performance of any such obligation the defense that a remedy at law would be adequate.

[the remainder of this page is intentionally blank]

IN WITNESS WHEREOF, the parties hereto have caused this Securities Purchase Agreement to be duly executed by their respective authorized persons as of the day and year below.

HEALTH DISCOVERY CORPORATION

By: _____

Name: _____

Title: _____

Date: _____

IN MAKING AN INVESTMENT DECISION, THE PURCHASERS MUST RELY ON ITS OWN EXAMINATION OF THE COMPANY AND THE TERMS OF THE SALE OF THE SHARES AND WARRANT, INCLUDING THE MERITS AND RISKS INVOLVED. THESE SECURITIES HAVE NOT BEEN RECOMMENDED BY ANY FEDERAL OR STATE SECURITIES COMMISSION OR REGULATORY AUTHORITY. FURTHERMORE, THE FOREGOING AUTHORITIES HAVE NOT CONFIRMED THE ACCURACY OR DETERMINED THE ADEQUACY OF THIS DOCUMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

By: _____

Name: _____

Date: _____

Address: _____

_____

_____

Resident of the State of _____

EXHIBIT 21.1

SUBSIDIARIES OF THE REGISTRANT

SVM Technology Inc., a Delaware corporation
SVM Technology Inc., a Georgia corporation

EXHIBIT 31.1

CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Stephen D. Barnhill, certify that:

1. I have reviewed this annual report on Form 10-K of Health Discovery Corporation (the "Registrant");

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this annual report;

4. The Registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e)) for the Registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

b) evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as the end of the period covered by this report based on such evaluation; and

c) disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of this report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting;

5. The Registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of Registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: March 31, 2009

/s/ Stephen D. Barnhill, M.D.
Stephen D. Barnhill, M.D.
Chief Executive Officer and
Principal Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350 AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

The undersigned hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that this Annual Report on Form 10-K for the year ended December 31, 2008 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and the information contained in such report fairly presents, in all material respects, the financial condition and results of operations of the Company.

This 31st day of March, 2009.

/s/ Stephen D. Barnhill, M.D.

Stephen D. Barnhill, M.D.
Chief Executive Officer and Principal Financial Officer