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STATES SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-K

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

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2010

OR

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

FOR THE TRANSITION PERIOD FROM TO .

Commission File Number 000-1383183

COMBIMATRIX CORPORATION

(Exact name of registrant as specified in its charter)

DELAWARE	**47-0899439**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
310 GODDARD, SUITE 150, IRVINE, CA	**92618**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(949) 753-0624**

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

Title of Each Class	**Name of Each Exchange on Which Registered**
Common Stock, $0.001 par value	**The NASDAQ Stock Market LLC**

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 Section 15(d) of the Act. Yes ☐ No ☒

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☐ No ☐

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

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

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

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

As of June 30, 2010, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the registrant's common stock held by non-affiliates was $19,220,000, based upon the last reported sale price of the registrant's common stock on that date as reported by Nasdaq. For the purposes of the foregoing calculation only, all of the registrant's directors, executive officers and persons known to the registrant to hold ten percent or greater of the registrant's outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not a determination for other purposes. The number of shares of the registrant's Common Stock, $0.001 par value, outstanding on March 18, 2011, was 7,620,398.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for its Annual Meeting of Shareholders to be filed with the Commission within 120 days after the close of its fiscal year are incorporated by reference into Part III. Except with respect to the information specifically incorporated by reference into this Form 10-K, the registrant's definitive proxy statement is not deemed to be filed as a part of this Form 10-K.

FORM 10-K ANNUAL REPORT
FISCAL YEAR ENDED DECEMBER 31, 2010
COMBIMATRIX CORPORATION

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PART I

CAUTIONARY STATEMENT

This report contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact included in this report, are forward-looking statements. Reference is made in particular to the description of our plans and objectives for future operations, assumptions underlying such plans and objectives, and other forward-looking statements included in this report. Such statements may be identified by the use of forward-looking terminology such as "may," "will," "expect," "believe," "estimate," "anticipate," "intend," "continue," "plan," "predict," "seek," "should," "would," "could," "potential," "ongoing," or similar terms, variations of such terms, or the negative of such terms, and include, but are not limited to, statements regarding projected results of operations, capital expenditures, earnings, management's future strategic plans, product development, litigation, regulatory matters, market acceptance and performance of our products and services, the success and effectiveness of our technologies, planned clinical trials by our minority-owned subsidiary, our ability to retain and hire key personnel, the competitive nature of and anticipated growth in our markets, market position of our products and services, marketing efforts and partnerships, liquidity and capital resources, our accounting estimates, and our assumptions and judgments. Such statements are based on management's current expectations, estimates and projections about our industry, management's beliefs, and certain assumptions made by us, all of which are subject to change. These forward looking statements are not guarantees of future results and are subject to a number of risks, uncertainties and assumptions that are difficult to predict and that could cause actual results to differ materially and adversely from those described in the forward-looking statements. The risks and uncertainties referred to above include, but are not limited to, our ability to obtain additional financing for working capital on acceptable terms in a timely manner; our ability to successfully implement our strategic and operational restructuring plan; our ability to successfully increase the volume of our existing tests, expand the number of tests offered by our laboratory, increase the number of customers and partners and improve reimbursement for our testing; our ability to continue as a going concern; changes in consumer demand; our ability to attract and retain a qualified sales force and key technical personnel; our ability to successfully develop products; our ability to successfully introduce new technologies and services; rapid technological change in our markets; the outcome of existing litigation; our ability to bill and obtain reimbursement for highly specialized tests; our ability to comply with regulations to which our business is subject; legislative, regulatory and competitive developments in markets in which we and our subsidiaries operate; our limited market capitalization; future economic conditions; other circumstances affecting anticipated revenues and costs; and other factors as more fully disclosed in our discussion of risk factors in Item 1A of Part I of this report. These forward-looking statements speak only as of the date of this report and wee expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions, or circumstances on which any such statement is based, except as otherwise required by law. Additional factors that could cause such results to differ materially from those described in the forward-looking statements are set forth in connection with the forward-looking statements.

As used in this report, "the Company," "we," "us" and "our" refer to CombiMatrix Corporation and its majority-owned subsidiary companies.

Item 1. BUSINESS

Overview

CombiMatrix Corporation (the "Company," "we," "us" and "our") was originally incorporated in October 1995 as a California corporation and later reincorporated as a Delaware corporation in September 2000. The original focus of the Company was in developing proprietary DNA array-based tools

and instruments for the genetic research community, under the brand formerly known as "CustomArray." In December 2002, we merged with and became a wholly owned subsidiary of Acacia Research Corporation ("Acacia"). In December 2006, we filed a registration statement with the U.S. Securities and Exchange Commission ("SEC") in order to register our common stock as part of a plan to split-off from Acacia (the "Split-Off"). On August 15, 2007 (the "Split-Off Date"), the Split-Off was effected and our common stock became publicly traded on the Nasdaq Stock Market (symbol: "CBMX"). As of the Split-Off Date, we ceased to be a subsidiary of, or affiliated with, Acacia.

On April 19, 2010, we announced a strategic and operational restructuring plan (the "Restructuring Plan") intended to significantly reduce operating costs, increase the focus on the Company's diagnostic services business and transition senior management. As part of the Restructuring Plan, we closed our CustomArray business and facilities located in Mukilteo, Washington and relocated our corporate headquarters to Irvine, California. Since the restructuring, our strategic focus is on commercializing our diagnostics services business by increasing the volume of our existing tests, expanding the number of tests offered by our laboratory, increasing the number of customers and partners, and improving reimbursement for our testing. We also initiated a search for a new President and Chief Executive Officer, which was completed on August 11, 2010 with the hiring of R. Judd Jessup. Concurrent with Mr. Jessup's appointment, Mark McGowan, our Chairman of the Board of Directors, discontinued serving as interim President and CEO, a role which he had assumed as a result of Dr. Amit Kumar's resignation from that role on June 30, 2010. Dr. Kumar had served as President and CEO from September 2001 through June 30, 2010.

We are a molecular diagnostics company that operates primarily in the field of genetic analysis and molecular diagnostics through our wholly owned subsidiary, CombiMatrix Diagnostics ("CMDX"), located in Irvine, California. CMDX operates as a diagnostics reference laboratory that provides DNA-based clinical diagnostic testing services to physicians, hospitals and other laboratories in two primary areas: (i) prenatal and postnatal developmental disorders; and (ii) oncology. CMDX provides its services through the use of array-comparative genomic hybridization ("aCGH"), which enables the analysis of genetic anomalies. Our mission is to empower physicians to positively impact patient care through the delivery of innovative DNA-based clinical services.

We also own a one-third minority interest in Leuchemix, Inc. ("Leuchemix"), a private drug development company focused on developing a series of compounds to address a number of oncology-related diseases.

Market Overview

We develop and market our molecular testing services in two distinct markets: prenatal/postnatal developmental disorders and oncology. In addition, we facilitate companion diagnostic opportunities by working with pharmaceutical and genomics companies to develop novel testing in the area of personalized medicine.

In our view, the molecular diagnostics market is one of the fastest-growing segments within the overall diagnostics market. Molecular diagnostics, within the context of this discussion, refers to the use of an individual's genetic analysis to guide medical decision-making in the area of disease diagnosis and post-diagnostic management. Innovative approaches to re-sequencing of the human genome and a growing clinical appreciation and acceptance of the utility of genomic information in guiding clinical care are enabling rapid growth of this market. Most experts believe that the use of molecular diagnostics will continue to grow in the coming years and will have a significant impact on the way medicine is practiced.

Genes and Proteins

The human body is composed of billions of cells, each containing DNA that encodes the basic instructions for cellular function. The complete set of an individual's DNA is called the genome, and is

organized into 23 pairs of chromosomes, which are further divided into smaller regions called genes. Each gene is comprised of a specific sequence involving four nucleotides (also called "bases"): A, T, G and C. These bases are complementary to one another in that A binds only with T and G binds only with C. This interaction forms "base pairs", and is responsible for the double helix structure of DNA.

The human genome has approximately three billion nucleotides and their precise order is known as the DNA sequence. When a gene is turned on, or expressed, the genetic information encoded in the DNA is transcribed (copied) to an intermediate format, called messenger RNA ("mRNA"). The mRNA code is then read and translated into a specific protein product. Proteins direct numerous cellular functions; some of which lead to the expression of individual traits, such as eye color or height. Abnormal variations in the sequence of a gene, such as deletions, point mutations, or inversions, can interfere with the normal physiology of cells in which that gene is expressed and lead to disease, predisposition to a disease, or an atypical response to certain types of drugs.

Genes and Molecular Diagnostics

There are a number of methods of genetic analysis that are used in diagnostic genetic testing. They include: (i) mutation analysis; (ii) array comparative genomic hybridization; and (iii) gene expression profiling. In many diagnostic situations, it is only necessary to analyze either a single gene or a small number of genes. Such type of diagnostic testing can be accomplished by a number of different techniques, depending on the situation. However, when a larger number of genetic factors need to be analyzed, we believe one of the most efficient methods of analysis is array comparative genomic hybridization (also referred to as "aCGH" or "microarray" testing). We believe that our microarrays and genomic services provide advantages over other microarrays for molecular diagnostic applications.

aCGH

The name "array comparative genomic hybridization" is derived from the fact that the patient's genomic DNA is being compared to a reference sequence to evaluate for relative gains and losses of genomic information. Some gains and losses are considered benign because they occur in regions of the genome that are known to show variability. Other gains and losses of genomic information are known to cause genetic disorders, a predisposition to a genetic disorder, or adverse drug reactions. The reason aCGH is such a powerful tool is that it is able to simultaneously multiplex across the entire genome in a single reaction, providing a comprehensive analysis of all 46 chromosomes. Unlike gene expression, which monitors the activity of genes, aCGH analysis studies and identifies defects at the gene level that are characteristic of disease, predisposition to diseases, the clinical course of a disease, or response to drugs.

We use two types of probe formats for our aCGH tests. The first type of probe, called a bacterial artificial chromosome ("BAC") array is a sequence of hundreds to thousands of bases that gets replicated in bacterial cells. The second type of probe, called an oligonucleotide ("oligo") array is a manufactured sequence of fewer than 100 bases (our arrays use oligos that are 60 nucleotides long). These probes map to specific regions of the genome, which allows us to custom-design our arrays in a manner that optimizes both the sensitivity and specificity of the test. Our oligo arrays range in density from 105,000 probes up to 180,000 probes per array.

Diagnostics Market Segmentation

Clinical Market

In general, our diagnostics services and test menus are focused around our highly specialized genomic array technologies. Descriptions of these specific tests are provided below. While there are risks associated with billing and reimbursement of these highly specialized tests, we believe that our unique market position and test portfolio provide significant leverage in the rapidly growing personalized genomics/ diagnostics space. Our test menu is further supplemented by what may be considered routine tests, which

allow us access to a broader, yet synergistic market. We approach the clinical market by first dividing it into two basic markets, which are the diagnostic needs associated with: (i) prenatal and postnatal developmental disorders; and (ii) oncogenomic testing for both solid tumors and hematologic cancers. Within each of these markets, we then define our potential client base. Our market analysis indicates that regardless of which of these two markets we service, our potential customers can be divided into three general segments listed below. Our services are tailored to meet the specific needs of each of the three customer segments. Moreover, all of our tests can be divided into two components, which in turn can be billed for independently or collectively. These components are the "TC" or "Technical Component" (i.e, the technical performance of the diagnostic test), and the "PC" or "Professional Component" (i.e., the professional interpretation of the diagnostic test, typically performed by a licensed physician). When these two components are performed together, a test is referred to and billed as a "Global" test.

Pre and Postnatal Diagnostic Testing

- *Children's hospitals, academic institutes affiliated with teaching hospitals and other large hospitals/ multi-hospital systems:* This segment typically has comprehensive capabilities and performs most of the basic genetic and chromosomal testing, including but not limited to: chromosome analysis; fluorescent *in situ* hybridization ("FISH") and polymerase chain reaction ("PCR")-based tests in-house. These facilities typically provide comprehensive genetic counseling to their patients, which is a key component in the clinical work-up and utilization of complex genomic assays in the developmental arena. However, because of budgetary constraints, many of these institutions find themselves in the untenable situation of having limited access to third-party manufactured kit components and unable to internalize such highly specialized genomic testing platforms due to lack of expertise in this area. This segment of the market typically outsources the TC of their high-complexity genomic test menu, while maintaining the PC interpretation in-house. Accordingly, we typically focus the marketing of our TC services to this segment of the market. From a billing perspective, many of these larger national reference laboratories have in-network relationships with third-party insurers or otherwise have allowances for esoteric tests such as ours. The latter is particularly true at academic teaching institutes affiliated with teaching hospitals. Therefore, we typically negotiate direct payment terms with this segment of the market for our TC services.
- *Community-based hospitals and regional reference laboratories:* This segment of the market is characterized by hospitals that provide basic laboratory services, but do not offer complex genetic testing such as aCGH. Regional labs with sufficient professional competence and sophistication often internalize the PC portion of our tests. However, if appropriate licensed individuals are unavailable and/or resources are limited, particularly at smaller regional labs and community hospitals, we offer our Global test services. Furthermore, unlike the larger national laboratories, this segment of the market is characterized by a preponderance of clients requiring us to bill their patients' insurers directly as opposed to a direct-to-institute billing relationship.
- *Physician groups:* In the developmental genetics market, physician groups collectively constitute a significant market opportunity. This segment of the market typically outsources all of their genetic testing services, requiring Global services and further requiring a testing laboratory, such as ours, to handle all aspects of patient billing. The physicians that make up this market include geneticists, pediatric neurologists, OB-GYNs and maternal fetal medicine specialists.

Oncogenomic Diagnostic Testing

- *National reference laboratories, academic institutes affiliated with teaching hospitals and other large hospitals/multi-hospital systems:* This segment typically has comprehensive capabilities and performs most of the basic cancer genetic testing including, but not limited to: chromosome analysis, FISH and PCR-based testing, as well as routine pathology testing, in-house. However, as noted above in the developmental disorder segment description, many of these institutes face

budgetary restraints and subsequently have difficulty trying to bring up new, specialized diagnostic tests, such as microarray analysis. Perhaps even more so than with developmental disorders, this segment of the market will frequently outsource the TC of their high complexity genomic test menu, while maintaining the PC interpretation in-house. In keeping with this strategy, we therefore focus on marketing our TC services to this segment of the market. The issues regarding billing mirror those experienced in developmental disorders testing.

- *Regional reference laboratories, large pathology groups and small community hospitals:* This segment of the market does not typically have the core competency to perform complex testing such as aCGH and therefore, most of this type of cancer testing is sent out to other laboratories, who have entered into reference laboratory agreements with the regional laboratories. Again, unlike the larger national laboratories, this segment of the market typically requires us to bill patient's insurers directly, rather than arranging a direct-to-institute billing relationship.
- *Oncology groups:* The physician groups in the cancer market differ substantially from those in the developmental disorders market. Oncologists typically outsource all of their genetic testing and pathology services, requiring Global services as well as addressing and processing all aspects of patient billing.

Research Market Segment

While the primary use of our diagnostic testing services is in the clinical arena, we also provide tools to biotechnology and pharmaceutical companies involved in drug development efforts as part of a movement toward personalized genomic medicine. We estimate that there are well over a thousand such organizations world-wide that could benefit from our laboratory expertise in the development of targeted therapeutics and companion diagnostics. We are in the very early stages of commercializing this market, since our primary commercial focus has been directed towards the clinical market.

Technologies

In order to achieve the promise of personalized medicine, our objective is to provide a suite of molecular diagnostic tests based on the following array-based technologies.

BAC Arrays

Our BAC arrays enable us to perform aCGH studies to evaluate genomic alterations. BACs are made up of specific sequences of hundreds to thousands of nucleotides and cover a large portion of the genome. These DNA sequences can be placed on a substrate, which, in our case, is a chemically modified glass slide. The BACs used on our arrays are developed by our laboratory or obtained through outside sources. We utilize BAC arrays to perform aCGH analysis in both diagnostic and research settings. Through aCGH analysis of a patient's sample, we compare the genomic DNA of the individual who has a potential genetic disorder with that of a reference set of normal individuals to evaluate for gains or losses of specific segments of genomic information that are associated with well-described genetic disorders. Typically, these gains and losses of information are so small that they go undetected by standard cytogenetic analysis, and can only be detected by aCGH. BAC arrays are particularly useful in analyzing DNA samples that are of poorer quality (such as older samples or tissue that has been preserved in formalin and placed in a wax block) because the large sequences make the assay robust and reduce "noise" in the data.

Oligo Arrays

Our oligo arrays allow us to perform aCGH on a much more refined scale than is possible with BAC technology. While BAC probes are often hundreds to thousands of nucleotides long, the oligo probes used in our arrays are only 60 nucleotides long. By having shorter probes that are spaced more closely together, we are able to provide dense, high-resolution analysis of the genome, focusing both on regions of known

clinical significance (i.e. regions known to cause well-described genetic syndromes when lost or gained) as well as regions that make up the rest of the genome, called "backbone" regions. Since the introduction of high-density oligo arrays into clinical medicine, many new genetic syndromes caused by genomic gains and losses have been, and continue to be, identified. Meta-analyses and large prospective studies have demonstrated that aCGH analysis provides greater than double the detection rate of standard cytogenetic testing (i.e., karyotyping and evaluation of the tips of chromosomes, called subtelomeres, by fluorescent *in situ* hybridization). The ability to identify a specific cause for an individual's disorder assists not only with diagnostic management, but also with anticipatory care. We currently utilize two oligo array formats which differ based on the array density and number of probes. Our Prenatal and Products of Conception array features 105,000 oligo probes. This allows us to provide high-density coverage of well-characterized regions of the genome as well as basic backbone coverage. Our postnatal array features 180,000 oligo probes and provides not only high-density coverage of important clinical regions, but also enhanced coverage of the genomic backbone for greater detection of variants whose clinical implications are still being clarified.

Technologies and Compound Libraries for Oncological Drug Development

Leuchemix has access to proprietary compounds that have been shown in pre-clinical studies to be cytotoxic toward certain cancers both *in vitro* and *in vivo*. Many of these compounds were discovered through combinatorial chemistry, natural product chemistry and cellular screening assays. Leuchemix has access to state-of-the-art laboratories and equipment, which includes flow cytometry, molecular biology and cell culture facilities. In addition, Leuchemix has access to a bank of over 150 primary leukemia specimens and a panel of 15 leukemia and lymphoma cell lines, as well as several xenogenic animal model systems. Leuchemix has also licensed proprietary compounds and compound libraries, which are being developed as drugs against a number of oncologic indications, including hematologic disorders and solid tumors. Leuchemix's lead compound, LC-1, is a modified natural compound known as parthenolide. The base compound of LC-1 was modified to improve solubility and favorably alter its natural pharmacokinetic properties to optimize it for anti-cancer therapy. Pre-clinical screening of LC-1 demonstrated activity against a variety of leukemic cells as well as activity against leukemic stem cells. LC-1 was also demonstrated to have activity against certain solid tumors. Leuchemix initiated human clinical safety trials of LC-1 in England during 2009, but recently had to halt these trials due to capital constraints. Due to recent funding from private investors and public grants, Leuchemix plans to re-start clinical trials during 2011.

Our Services

Overview

We utilize BAÇ and oligo array technologies to develop molecular diagnostic services for the diagnosis of diseases and the management of patients in two primary areas: (i) developmental disorders in children, and (ii) oncology.

Developmental Disorders

The focus of our developmental disorder suite of array tests is on the prenatal and postnatal application of aCGH in diagnosing genomic syndromes associated with developmental delays, autism spectrum disorders, dysmorphic features and/or birth defects. Clinicians have regarded traditional karyotyping as the "gold standard" for this type of diagnosis for the past two decades. However, current studies demonstrate a clear improvement in the detection rate of chromosomal abnormalities by aCGH, not only in the pediatric realm but also in prenatal care. An accurate diagnosis is essential to providing appropriate anticipatory care, starting with decisions about pregnancy management and moving towards decisions about whether delivery at a tertiary care center is advised and how the genomic disorder will potentially impact neonatal and pediatric care. As a result of the advances in array-based diagnostic testing for developmental disorders, numerous professional organizations have recently revised their standard of

care recommendations to include the use of aCGH as a first-tier test in lieu of standard karyotyping. As an example, in 2010, the American College of Medical Genetics recommended aCGH testing, such as our DNArray™, as the preferred postnatal standard of care test for the detection of genomic abnormalities associated with congenital abnormalities, developmental disorders, intellectual disability, and autism/ autism spectrum disorders.

In 2006, we introduced our first developmental disorders array test, which detected over 50 different genetic disorders in one multiplexed analysis. In October 2006, the U.S. Food and Drug Administration ("FDA") indicated that this test did not require approval under its guidance as it fell into the category of an IVDMIA-*In Vitro* Diagnostics Multivariate Index Analysis. Following this determination, we launched our microarray test under CLIA guidelines for use in the clinical care of patients. Since then, we have launched several upgrades of this test, the latest version of which is capable of identifying over 260 different genetic disorders, ranging from common conditions, such as Down syndrome (trisomy 21) and DiGeorge syndrome (deletion 22q11.2) to much more rare disorders. This test can be used for postnatal analysis, prenatal analysis, and the analysis of the products of conception (tissue from a miscarriage or fetal death) to determine if there is an underlying genomic cause for the fetus, infant or child's condition. We continue to monitor primary, peer-reviewed journals for information that would allows us to make either incremental improvements to the current array design, or much larger changes for a new version of our array. As an example of our publication-driven approach, as early as 2009, we began to include specific coverage of regions shown to be strongly associated with autism spectrum disorders ("ASDs") or predisposition to ASDs, long before the guidelines to testing children with autism/ASDs included microarray analysis. It is now known that approximately 7% of all children with an ASD have a genomic abnormality that is identifiable by aCGH. This resulted in the adoption of the recommendation that all children with an ASD undergo microarray analysis as part of a first tier diagnostic evaluation. The ability to identify a genomic abnormality in a child with an ASD allows the physician to provide enhanced care based on the genomic diagnosis, rather than a broad behavioral label, such as "autism." It also allows families more precise information about recurrence risks to assist them in decisions about family planning. In 2010, we introduced our most comprehensive array platform to date, which included chromosomal array probe coverage following the guidelines established by the International Standard Cytogenomic Array Consortium.

Oncology

The second area of focus for our diagnostic services is cancer. In the United States alone, the American Cancer Society estimates that 1.4 million individuals are diagnosed with cancer annually, and this rate is expected to grow rapidly as the overall population, including the "baby boomer" generation, ages. At any given time in the United States, there are several million individuals who either have cancer or are cancer survivors, and are at risk for recurrence. Patients who are newly diagnosed with cancer require significant medical care, which often includes surgery, hospital stays, examinations, chemotherapy and diagnostic testing. We have developed, and continue to develop a series of products that, through the genetic analysis of blood, tissue or biopsy samples, will provide additional genomic information to physicians for use in providing more personalized management of their patients.

DNAarray™—Heme Profile

We offer our DNAarray™—Heme Profile test to address several of the common hematological malignancies, including Chronic Lymphocytic Leukemia ("CLL"). Our array-based test is designed to evaluate the underlying genetic aberrations in these disorders in order to enable prognosis of the clinical course of the disease. Such information can be then utilized by physicians, in combination with other tests, to make better informed patient management and treatment decisions and recommendations. For the Heme Profile test, we recently launched an array platform that is endorsed by the Cancer Cytogenomics Microarray Consortium ("CCMC"), a governing body headed by the top academic and commercial key

opinion leaders in the oncology-focused microarray industry. It is estimated that the combined diagnoses of the diseases served by our Heme Profile test in the US is roughly 60,000 patients annually.

In 2008 and 2009, we successfully published a number of papers and were invited to give presentations at national and regional conferences to discuss studies we had conducted which compared data from our Heme Profile array services with other techniques used in the evaluation of CLL patients. These studies were conducted in conjunction with collaborators from major cancer centers, including the MD Anderson Cancer Center in Houston, Texas. These studies clearly demonstrated the superiority of our array services over conventional diagnostic techniques in evaluating patients with CLL. In 2010, additional publications in leading journals continued to document the superiority of our array-based testing in finding key diagnostic and prognostic chromosomal changes that may otherwise go undetected by traditional testing methods for CLL.

DNAarray™—HER2 PRO

The American Cancer Society estimates that in the United States, there were approximately 207,000 new cases of breast cancer in 2010 and about 40,000 women will die from this disease annually. Recent studies have shown that approximately 1 in 5 women of newly diagnosed breast cancer cases have extra copies of the HER2 gene on chromosome 17. Such "HER2-positive" cancers are characterized by the presence of large amounts of HER2 protein, which can be evaluated using a test methodology called immunohistochemical staining ("IHC"). HER2-positive cancers are associated with a poor prognosis due to the aggressive disease characteristics conferred by the extra dosage of the HER2 gene product. Nearly a decade ago, the cell signaling pathway that drives the aggressive growth of HER2-positive tumors was elucidated. Researchers found that the HER2 protein was part of a cell signaling pathway driving uncontrolled cell growth and division, and thus, cancer formation. As a result, a drug called Herceptin was developed, which blocks the HER2 protein's effects and prevents it from signaling to other cells to continue to grow and divide. Herceptin has been shown to be a highly effective intervention for women with HER2-positive breast cancer. However, because Herceptin's mechanism of action is to block the HER2 protein, only women with HER2-positive breast cancer appear to benefit from this therapy. Women with breast cancer that shows either a normal copy number or a loss of the HER2 gene, referred to as "HER2-negative," should likely not be treated with Herceptin because, as would be expected, Herceptin does not appear to be effective for these women, and there are significant risks associated with treatment that outweigh any potential benefits it could have.

Given the availability of a highly effective therapeutic intervention for women with HER2-positive breast cancer, an entire market sector arose to address the issue of HER2 status determination for women with invasive breast cancer. Traditionally, HER2 status was determined by IHC to assess the amount of HER2 protein present and/or by using FISH probes to assess the levels of HER2 gene amplification present in cancer cells. However, both of these tests are subjective, and studies have shown significant variability in interpretation not only between different pathologists, but also within a single pathologist's own interpretations on similar cases. To complicate matters further, some cases show equivocal results (i.e. not clearly positive or negative), and as many as 1 in 3 cases have discordant IHC and FISH results, in which one is positive, and the other is negative. Due to the incomplete assessment of chromosome 17 and the complex structural alterations associated with breast cancer, we believe FISH and IHC remain less than ideal tests for HER2 status determination. However, microarray analysis of chromosome 17 is able to provide an objective measure of HER2 status and resolve both equivocal and discordant HER2 results obtained by FISH and IHC. In 2008, we developed the first BAC array for clinical use in breast cancer, called Her2PRO, which was designed to detect amplification of HER2 while simultaneously enumerating clinically relevant genomic changes across all of chromosome 17. Her2PRO objectively stratifies patients into one of four HER2 gene status categories: amplification, gain, normal, or loss. In 2010, a peer-reviewed publication in the publication *BMC Cancer*, written by Dr. Gunn, et al., highlighted the ability for the HER2 PRO test to objectively resolve formerly problematic HER2 cases by IHC and FISH.

In early 2009, we introduced HerScan (re-branded as DNAarray™—Breast Profile) along with HER2PRO arrays for breast cancer. While HER2PRO evaluates chromosome 17, the DNAarray™—Breast Profile is a whole genome array that includes all of the chromosome 17-targeted probes (including those for HER2) as part of a total of 3,000 probes covering the entire genome (all 46 chromosomes). Analysis of 97 cases of invasive ductal and lobular carcinomas showed that both the Breast Profile and HER2PRO accurately and reproducibly determined HER2 status, and that in addition, the Breast Profile provided data regarding genomic subtypes of invasive breast cancer, that had previously been reported by Loo et al., in *Cancer Research* (2004) 64:8541-8549. These genomic subtypes include cancer cells with: gain of chromosome 1q; loss of chromosome 16q; amplification of the C-MYC oncogene on chromosome 8; and loss of the tumor suppressor gene TP53 on chromosome 17. HER2 IHC and FISH do not assess these additional markers thus, the Breast Profile was recognized as being able to provide additional clinically relevant information, which in turn allows clinicians to make better patient management decisions and recommendations. We have marketed this testing to oncologists and pathologists as an alternative to traditional FISH, as it not only evaluates HER2 status and genomic alterations to chromosome 17, but simultaneously evaluates the entire genome for clinically relevant alterations associated with prognostic information.

DNAarray™—Tumor Profile

In January 2010, we became the first clinical laboratory in the United States to offer a comprehensive DNA-based genomic analysis of solid tumors, including breast, colon, lung, prostate and brain tumors. Our DNAarray—Tumor Profile test has been utilized by oncologists to help direct patients to appropriate clinical trials and can be used to gain a picture of a patient's underlying overall genomic instability at the molecular level. We are partnering with a number of institutions to study potential genomic sub-typing for each of these tumors, based on our success with genomic sub-typing in invasive breast cancers.

Our Strategy

Our strategic focus is on commercializing our diagnostics services business by increasing the volume of our existing tests, expanding the number of tests offered by our laboratory, increasing the number of customers and partners, and improving reimbursement for our testing. We intend to accomplish this by implementing strategies in the following areas:

Partnering to Expand Marketing and Sales Efforts

We have established and will continue to pursue multiple relationships to facilitate the expansion of our array services. We plan to pursue relationships and collaborations to gain access to sales, marketing and distribution channels. These relationships could include alliances with other laboratory service providers.

Expanding Our Test Offerings

We intend to expand the test menu of services we offer to clients in order to improve their ability to effectively treat their patients. In addition to providing new sources of revenue, we believe these additional tests will further our goal of establishing our company as a leader in the molecular diagnostics market.

Customer Billing

Customers of our diagnostic services typically fall into two broad payor categories: direct-bill and third-party payors. Direct-bill payors include healthcare institutions such as hospitals and clinics, physicians and individual patients. For the direct-bill category, our diagnostic services are billed at established contractual rates once the test results have been delivered to the referring physician. Third-party payors include organizations such as commercial insurance companies as well as government payors including Medicare and Medicaid. For the non-governmental third-party payor category, our diagnostic services are

billed at our list prices for the tests performed, but are recognized for accounting and financial reporting purposes as service revenues based on the amount expected to be collected. The difference between the amount billed and the amount expected to be collected is recorded as a contractual allowance. For governmental payors, we recognize revenues based upon published fee schedules established by the Centers for Medicare and Medicaid Services ("CMS") using individual billing codes known as Common Procedural Terminology (or "CPT") codes established for array-based laboratory diagnostic tests. The relevant CPT billing codes distinguish between TC services (i.e., the technical performance of a diagnostic test), PC services (i.e., the professional interpretation of a diagnostic test, typically performed by a licensed physician), and Global test services (i.e., the combination of Technical and Professional services). Medicare CPT codes and general billing and business factors allow us to provide either the Technical or Global services to our customers.

Governmental Regulation

Our business is subject to extensive laws and regulations as described below.

Clinical Laboratory Improvement Amendments of 1988 ("CLIA")

As a clinical reference laboratory, CMDX is required to hold certain federal, state and local licenses as well as certain certifications and permits to conduct our business. Under CLIA, we are required to hold a certificate applicable to the type of work we perform and to comply with standards covering personnel, facilities administration, quality systems and proficiency testing. We have a certificate of accreditation under CLIA to perform testing and are accredited by the College of American Pathologists ("CAP"). To renew our CLIA certificate, we are subject to periodic inspection standards applicable to the testing which we perform. Should regulatory compliance requirements become substantially more complex, operational costs at our lab might increase in the future. If our laboratory is out of compliance with CLIA requirements, we may be subject to certain sanctions. We must maintain CLIA compliance and certification to be eligible to bill for services provided to Medicare beneficiaries. If we were to be found out of compliance with CLIA program requirements and subjected to sanction, our business could be harmed.

U.S. Food and Drug Administration ("FDA")

Regulations by the U.S. FDA regarding genetic testing are in a state of flux and changes to these regulations could dramatically affect the molecular diagnostics industry in the near future. While the FDA has the authority to regulate laboratory developed tests ("LDTs"), it has generally exercised enforcement discretion in the area of LDTs performed by CLIA-certified laboratories. However, with the advent of Direct-to-Consumer DNA testing (i.e. testing that is marketed directly to the public, does not require a physician's order, and provides risk factor information rather than diagnostic or prognostic information), genomic testing using microarray technology (particularly single nucleotide polymorphism arrays) has come under scrutiny. In July 2010, the FDA held a two-day public meeting to obtain input from key stakeholders, including physicians, laboratory directors, regulatory and accrediting body members and the general public, regarding the structuring of a regulatory framework for LDTs. During this meeting, we believe that it became clear that the FDA's primary concern had less to do with CLIA-certified laboratories (such as CMDX) performing *clinical* microarray testing (i.e., testing ordered by a physician for medically necessary reasons, including disease diagnosis, monitoring, and treatment decisions) and more to do with Direct-to-Consumer laboratories performing *non-clinical* testing that relies on what the FDA has referred to a "black box" proprietary algorithms to interpret their microarray data. This meeting came on the heels of a U.S. Government Accountability Office report entitled "Direct-to-Consumer Genetic Tests: Misleading Test Results are Further Complicated By Deceptive Marketing and Other Questionable Practices". While no specific guidelines or timelines were stated, it is believed that changes to how the FDA regulates LDTs will be forthcoming. There can be no assurance, however, that such changes will not negatively impact our business.

Health Insurance Portability and Accountability Act ("HIPPA")

Under the federal Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), the U.S. Department of Health and Human Services issued regulations to protect the privacy of individuals' personal medical and health information through the implementation of security measures that govern how such data is stored and maintained, and limit the disclosure of this "protected health information" to only those who receive specific authorization from the individual. Violations of HIPAA regulations include civil and criminal penalties. Consequently, our policies and procedures are designed to comply with such regulations. The requirements under these regulations may change periodically and we will continue to monitor such changes. There are also a number of state laws governing confidentiality of health information that are applicable to our operations, and new laws governing privacy may be adopted in the future. While we believe that we comply with regulations currently, we can provide no assurance that we are or will remain in compliance with diverse privacy requirements as they develop.

Federal and State Insurance Regulations, Self-referral Prohibitions and Anti-kickback Laws

Existing federal and state laws governing Medicare and Medicaid impose a variety of restrictions on financial relationships among healthcare providers, including clinical laboratories. These laws include the federal anti-kickback law. Numerous civil and criminal penalties exist for many of the federal and state anti-fraud statutes and regulations, including their application to joint ventures and collaborative agreements. These statutes and regulations are vague and have not yet been interpreted by the courts. There are also federal and state self-referral prohibitions, which prohibit us from accepting referrals from physicians with whom we have a compensation relationship, and violations of such could result in civil and criminal penalties. Finally, there are other rules addressing certain aspects of our business including billing and relationships with customers to which we are subject. These rules may evolve and change in the future and could negatively impact our business.

State Laboratory Licensing

In addition to federal certification requirements of laboratories under CLIA, licensure is required and maintained for our clinical reference laboratory under California law. We currently maintain a license in good standing with the California DHS, but if our clinical reference laboratory is found to be out of compliance with California standards, our license may be suspended or revoked by the California Department of Health Services ("DHS") and we may subject to fines and penalties.

We must also satisfy various application and provisional requirements for other states in which we desire to conduct business, including New York, Florida, Maryland, Pennsylvania and Rhode Island. We are currently not licensed by the New York State Department of Health but are seeking such a license and have obtained licenses from each of the other states listed. We may become aware from time to time of additional states that require out-of-state laboratories to obtain licensure in order to accept patient specimens from those states, and it is possible that other states do have such requirements or will have such requirements in the future. If we identify any other state with such requirements or if we are contacted by any other states advising us of such requirements, we intend to strictly adhere to the instructions and guidelines from the state regulators as to how we should comply with such requirements. There can be no assurance, however, that our efforts to comply will be successful.

Subsidiaries

During the second quarter of 2005, we formed a wholly owned subsidiary, CMDX, in order to exploit our array technologies in the field of molecular diagnostics. As of December 31, 2010, CMDX had 37 employees located in Irvine, California.

We also own one-third of Leuchemix, which is a private drug development company focused on the area of oncology, located in Woodside, California.

Commercial Operations

All products and services offered by CMDX are performed in our CLIA-certified, CAP-accredited clinical laboratory in Irvine, CA. Our commercial operations infrastructure includes sales, marketing, clinical support services and billing/ reimbursement. We continue to build a nationally-focused commercialization strategy by interacting directly with oncologists, pathologists, medical geneticists, maternal-fetal medicine specialists, pediatric neurologists and genetic counselors. The market-specific experience of our direct sales force, coupled with regional and local territory experience, is expected to increase physician awareness and demand for our services. Our marketing and clinical support services teams work in tandem to increase awareness and appropriate utilization of our products and services by both physicians and patients. Our marketing initiatives include traditional marketing tactics such as physician education, professional medical society and advocacy tradeshows and web-based initiatives. Our billing/reimbursement team works to facilitate access to our products and services by assisting ordering physicians and their patients with healthcare insurance billing, appeal processes, and patient payment options. In addition to our direct sales approach, CMDX markets its services to other laboratories through partnerships and seeks to support the growth of our commercial operations initiatives through pursuing new partnerships.

Manufacturing

We have developed automated, computer-directed production processes for spotting of BACs onto chemically modified glass slides to create our BAC microarrays. We conduct quality control reviews of all biological materials used in the manufacturing process.

Nearly all of the components and raw materials used in the production of our BAC microarrays are currently provided from a limited number of sources or, in some cases, from a single source. Although we believe that alternative sources for those components and raw materials are available, any supply interruption in a sole-sourced component or raw material might result in up to a several-month production delay and materially harm our ability to produce BAC microarrays until a new source of supply, if any, can be located and qualified. In addition, an uncorrected impurity or supplier's variation in a raw material, either unknown to us or incompatible with our production process, could have a materially adverse effect on our ability to produce BAC microarrays. We may be unable to find a sufficient alternative supply channel in a reasonable time period, or on commercially reasonable terms, if at all.

Seasonality

Our business is subject to the impact of seasonality, particularly during the holiday season in the fourth quarter when patients tend to be less likely to visit their healthcare providers and pursue diagnostic testing. In addition, during the winter months, disruptions in transportation due to inclement weather may affect not only patients' ability to visit their healthcare providers, but also prompt provider concerns about potential disruption or delay in sample processing, both of which negatively impact our business. Consequently, the demand for our services, in general, could be subject to declines in the fourth quarter and during periods of severe weather.

Patents and Licenses

In the United States, we have been issued nine United States patents related to our former CustomArray tool business. Three of these patents (U.S. Patent No. 6,093,302, 6,280,595 and 6,444,111 all of which expire on January 5, 2018) are first generation technology relating to methods for electrochemical synthesis of arrays of DNA and other biological materials as well as non-biological materials. The fourth United States Patent (U.S. Patent No. 6,456,942) describes and claims a network infrastructure for array synthesis and analysis. The fifth United States Patent (U.S. Patent No. 7,075,187) describes and claims a porous coating material that covers electrodes and is used as a three-dimensional support material for

electrochemical synthesis on the individual electrodes of an array of electrodes. The sixth (U.S. Patent No. 7,323,320) and seventh (U.S. Patent No. 7,563,600) United States Patents have been assigned to another company. The eighth United States Patent (U.S. Patent No. 7,507,837) describes and claims a process for performing an isolated palladium (II)-mediated oxidation reaction on our electrode for building libraries of organic compounds electrochemically and in parallel. The ninth United States Patent (U.S. Patent No. 7,541,314) describes and claims a microarray with a linker that is cleaved by a base for use in selective removal of oligonucleotides from the microarray. Corresponding patents describing and claiming methods for electrochemical synthesis of arrays have been issued to us in Europe (entire EU), Australia, and Taiwan and are pending in the remaining major industrialized markets. We have filed patent applications relating to new methods of, and materials for, electrochemical synthesis and for electrochemical detection, which eliminates the need for optical readers. As a part of our Restructuring Plan, many of these patents were licensed to a private company, CustomArray, Inc.

We seek to protect our corporate identity, products, and services with trademarks and service marks. In addition, our trademark strategy includes protecting the identity and goodwill associated with our products and services. Currently, our registered trademarks include CMDX®, DNAARRAY®, HEMESCAN®, and HERSCAN® in the United States.

We try to obtain licenses to the patent rights of others when required to meet our business objective. For example, we purchase chemical reagents from suppliers who are licensed under appropriate patent rights. Further, our policy is to obtain licenses from patent holders for our products and services whenever such licenses are required. We evaluate if and when a license is needed and obtain opinions from outside counsel where required.

Competition

We believe that competition within our market is increasing. Our business competitors in the United States include other aCGH clinical laboratories, both commercial and academic, and include companies such as LabCorp (through its recent acquisition of Genzyme) and Perkin-Elmer (through its recent acquisition of Signature Genomics). Some of these competitors may possess greater financial, technical, human and other resources than we do. Increased competition may be faced as new companies enter the market, market consolidation occurs and advanced technologies become available. Technological advances or entirely different approaches developed by one or more of our competitors could render our products and services obsolete or uneconomical. The existing approaches of competitors or new approaches or technology developed by competitors may be more effective than those developed by us. Our market is rapidly changing, and we expect to face additional competition from new market entrants, new product developments and consolidation of our existing competitors. As new competitors emerge, the intensity of competition may increase in the future.

We also compete against existing cytogenetic/cytogenomic testing methods currently used by target physicians, such as oncologists and geneticists. These existing methods have been in place for many years and despite growing clinical evidence and professional society guidelines, it can be difficult to change and/or supplement physicians' behaviors.

Research and Development

Our research and development expenses were $2.0 million and $2.8 million for the years ended December 31, 2010 and 2009, respectively. Of these amounts, research and development related non-cash stock compensation charges were $166,000 and $181,000 for the years ended December 31, 2010 and 2009, respectively. Our research and development activities primarily relate to the development and validation of diagnostic tests in connection with our specialized developmental disorder and oncology array-based diagnostic services.

Employees

As of December 31, 2010, we had 40 full-time employees. We believe that we maintain good relationships with our employees and are not subject to collective bargaining arrangements.

Environmental Matters

Our operations involve the use, transportation, storage and disposal of hazardous substances. As a result, we are subject to environmental and health and safety laws and regulations. The cost of complying with these and any future environmental regulations could be substantial. In addition, if we fail to comply with environmental laws and regulations, or release any hazardous substances into the environment, we could be exposed to substantial liability in the form of fines, penalties, remediation costs and other damages and could even suffer a curtailment or shut down of our operations.

Available Information

We are subject to the informational requirements of the Securities Exchange Act of 1934. Therefore, we file periodic reports, proxy statements and other information with the SEC. Such reports, proxy statements and other information may be obtained by visiting the Public Reference Room of the SEC at 100 F Street N.E., Washington, D.C. 20549 or by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an Internet site (http://www.sec.gov) that contains reports, proxy and information statements and other information regarding issuers that file electronically.

You can also access financial and other information at our Investor Relations website. Our website is located at www.combimatrix.com. We make available free of charge on our web site our Annual Reports on Form 10-K, our Quarterly Reports on Form 10-Q, our Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after we electronically file them with or furnish them to the SEC. Information contained on our web site is not part of this Annual Report on Form 10-K or our other filings with the SEC.

The charters of our Audit Committee, our Compensation Committee and our Nominating and Governance Committee are available on the Investor Relations section of our website under "Corporate Governance." Also available on that section of our website is our Code of Business Conduct and Ethics, which we expect every employee, officer and director to read, understand and abide by. This information is also available by writing to us at the address on the cover of this report.

Item 1A. RISK FACTORS

An investment in our securities involves a number of risks. Before making a decision to purchase our securities, you should carefully consider all of the risks described in this annual report. If any of the risks discussed in this annual report actually occur, our business, financial condition and results of operations could be materially adversely affected. If this were to occur, the trading price of our securities could decline significantly and you may lose all or part of your investment.

Risks Related To Our Business

We may not be able to meet our cash requirements beyond 2011 without obtaining additional capital from external sources, and if we are unable to do so, we may not be able to continue as a going concern.

As of December 31, 2010, we had $6.6 million in cash and cash equivalents which we anticipate will meet our cash requirements through approximately the fourth quarter of 2011. However, in order for us to continue as a going concern beyond that point, we may be required to obtain capital from external sources. If external financing sources are not available in a timely manner or at all, or are inadequate to fund our operations, it could result in reduced revenues and cash flows from the sales of our diagnostic services

and/or could jeopardize our ability to launch, market and sell additional products and services necessary to grow and sustain our operations.

We may need to raise additional capital in the future, and if additional capital is not available on acceptable terms, in a timely manner, or at all, we may have to curtail or cease operations.

Our future capital requirements will be substantial and will depend on many factors, including how quickly we commercialize our test offerings and the progress and scope of our collaborative and independent research and development projects. Changes may occur that would cause our available capital resources to be consumed significantly sooner and more rapidly than we expect. Even if available, financings can involve significant costs and expenses, such as legal and accounting fees, diversion of management's time and efforts, or substantial transaction costs. Financings may also involve substantial dilution to existing stockholders, and may contain rights senior to existing stockholders.

We may be unable to raise sufficient additional capital in a timely manner, on favorable terms or at all. If we fail to do so, we would have to curtail or cease operations or enter into agreements requiring us to relinquish rights to certain technologies, products, or markets because we will not have the capital necessary to exploit them.

We have a history of losses and expect to incur additional losses in the future.

We have sustained substantial losses since our inception. We may never become profitable, or if we do, we may never be able to sustain profitability. We expect to incur significant research and development, marketing, general and administrative expenses. As a result, we expect to incur losses for the foreseeable future.

To date, we have relied primarily upon selling equity and convertible securities, as well as payments from strategic partners, to generate the funds needed to finance the implementation of our business strategies. We cannot assure you that we will not encounter unforeseen difficulties, including the outside influences identified below that may deplete our capital resources more rapidly than anticipated. Our subsidiary companies also may be required to obtain additional financing through bank borrowings, debt or equity financings or otherwise, which would require us to make additional investments or face a dilution of our equity interests. We cannot be sure that additional funding will be available on favorable terms, if at all. If we fail to obtain additional funding when needed for our subsidiary companies and ourselves, we may not be able to execute our business plans or continue operations, and our business may be materially adversely affected.

We began commercialization of our molecular diagnostics services in 2006. Accordingly, we have a limited operating history of generating revenues from products and services. In addition, we are still developing our product and service offerings and are subject to the risks, expenses and difficulties frequently encountered by companies with such limited operating histories. Since we have a limited operating history, we cannot assure you that our operations will become profitable or that we will generate sufficient revenues to meet our expenditures and support our activities.

Because our business operations are subject to many uncontrollable outside influences, we may not succeed.

Our business operations are subject to numerous risks from outside influences, including the following:

- *Technological advances may make our array-based technology obsolete or less competitive, and as a result, our revenue and the value of our assets could materially decrease.*

  Our services are dependent upon oligo and BAC array-based technologies. These technologies compete with conventional diagnostic technologies such as FISH and PCR. Our products and services are substantially dependent upon our ability to offer the latest in array technology in the

SNP genotyping, gene expression profiling, CGH and proteomic markets. We believe technological advances of conventional arrays are currently being developed by our existing competition, including companies such as LabCorp and Perkin-Elmer, and potential new competitors in the market. We also expect to face additional competition from new market entrants and consolidation of our existing competitors. Many of our competitors have existing strategic relationships with major pharmaceutical and biotechnology companies, greater commercial experience and substantially greater financial and personnel resources than we do. We expect new competitors to emerge and the intensity of competition to increase in the future. If these companies are able to offer technological advances, our products may become less valuable or even obsolete. We cannot provide any assurance that existing or new competitors will not enter the market with the same or similar technological advances before we are able to do so.

- *New environmental regulation may materially increase the net losses of our business.*

  Our operations involve the use, transportation, storage and disposal of hazardous substances, and as a result, we are subject to environmental and health and safety laws and regulations. If we were to be found in violation of these laws and regulations, we may face fines or other penalties. Also, any changes in these laws and regulations could increase our compliance costs, and as a result, could materially increase our net losses.

- *Our technologies face uncertain market value.*

  Our business includes many products, some of which were recently introduced into the market. These technologies and products have not gained widespread market acceptance, and we cannot provide any assurance that the increase, if any, in market acceptance of these technologies and products will meet or exceed our expectations.

  Further, we are developing products and services, some of which have not yet been introduced into the market. A lack of or limited market acceptance of these technologies, products and services will have a material adverse effect upon our results of operations.

- *We obtain components and raw materials from a limited number of sources, and, in some cases, a single source, and the loss or interruption of our supply sources may materially adversely impact our ability to manufacture our products to meet our existing or future sales targets.*

  Substantially all of the components and raw materials used in the manufacture of our products are currently provided from a limited number of sources or, in some cases, from a single source. Any supply interruption in a sole-sourced component or raw material might result in significant production delays and materially harm our ability to manufacture products until a new or alternative source of supply, if any, could be located and qualified. In addition, an uncorrected impurity or supplier's variation in a raw material, either unknown to us or incompatible with our manufacturing process, could have a material adverse effect on our ability to manufacture products. We may be unable to find a sufficient alternative supply channel in a reasonable time period, or on commercially reasonable terms, if at all.

Any one of the foregoing outside influences may require us to seek additional financing to meet the challenges presented or to mitigate a loss in revenue, and we may not be able to obtain the needed financing in a timely manner on commercially reasonable terms or at all. Further, any one of the foregoing outside influences affecting our business could make it less likely that we will be able to gain acceptance of our array technology by researchers in the pharmaceutical, biotechnology and academic communities.

Our revenues will be unpredictable, and this may materially adversely affect our financial condition.

The amount and timing of revenues that we may realize from our business will be unpredictable because whether our products and services are commercialized and generate revenues depends, in part, on the efforts and timing of our potential customers. Also, our sales cycles may be lengthy. As a result, our revenues may vary significantly from quarter to quarter, which could make our business difficult to manage and cause our quarterly results to be below market expectations. If this happens, the price of our common stock may decline significantly.

The genetic diagnostic laboratory market is characterized by rapid technological change, frequent new product introductions, and evolving industry standards, and we may encounter difficulties keeping pace with changes in this market.

The introduction of diagnostic tests embodying new technologies and the emergence of new industry standards can render existing tests obsolete and unmarketable in short periods of time. We expect our competitors to introduce new products and services and enhancements to their existing products and services. We may not be able to enhance our current tests, or to develop new tests, in a manner that keeps pace with emerging industry standards and achieves market acceptance. Our inability to accomplish any of these endeavors will likely have a material adverse effect on our business, operating results, cash flows, and financial condition.

If we do not enter into successful partnerships and collaborations with other companies, we may not be able to fully develop our technologies or products, and our business would be materially adversely affected.

Since we do not possess all of the resources necessary to develop and commercialize products that may result from our technologies on a mass scale, we will need either to grow our sales, marketing and support group or make appropriate arrangements with strategic partners to market, sell and support our products. We believe that we will have to enter into additional strategic partnerships to develop and commercialize future products. If we cannot identify adequate partners, if we do not enter into adequate agreements, or if our existing arrangements or future agreements are not successful, our ability to develop and commercialize products will be impacted negatively, and our revenues will be materially adversely affected.

We have limited commercial experience in marketing or selling any of our potential products and services, and unless we develop these capabilities, we may not be successful.

Even if we are able to develop our products and services for commercial release on a large scale, we have limited experience in performing our tests in the volumes that will be necessary for us to achieve commercial sales and in marketing or selling our products to potential customers. We cannot assure you that we will be able to commercially perform our tests on a timely basis, in sufficient quantities, or on commercially reasonable terms.

We face intense competition, and we cannot assure you that we will be successful competing in the market.

The diagnostics market is characterized by rapidly changing technology, evolving industry standards, changes in customer needs, emerging competition and new product introductions. One or more of our competitors may offer technology superior to ours and render our technology obsolete or uneconomical. Many of our competitors have greater financial and personnel resources and more experience in marketing, sales and research and development than we have. If we were not able to compete successfully, our business and financial condition would be materially harmed.

If our technology is not widely adopted by physicians and laboratories in the diagnostics market, our business will be materially adversely affected.

In order to be successful, our test offerings must meet the commercial requirements of hospitals and physicians and be considered the standard of care in order to be widely adopted. Market acceptance will depend on many factors, including:

- the benefits and cost-effectiveness of our products relative to others available in the market;
- our ability to provide testing services in sufficient quantities with acceptable quality and reliability and at an acceptable cost;
- our ability to develop and market additional tests and enhance existing tests that are responsive to the changing needs of our customers; and
- the willingness and ability of customers to adopt new technologies or the reluctance of customers to change technologies upon which they have previously relied.

Our tests may not gain market acceptance. In that event, it is unlikely that our business will succeed.

U.S. healthcare reform legislation may result in significant changes, and our business could be adversely impacted if we fail to adapt.

Government oversight of and attention to the healthcare industry in the United States is significant and increasing. In March 2010, U.S. federal legislation was enacted to reform healthcare. The legislation provides for reductions in the Medicare clinical laboratory fee schedule beginning in 2011 and also includes a productivity adjustment that reduces the CPI market basket update beginning in 2011. The legislation imposes an excise tax on the seller for the sale of certain medical devices in the United States, including those purchased and used by laboratories, beginning in 2013. The legislation establishes the Independent Payment Advisory Board, which will be responsible, beginning in 2014, annually to submit proposals aimed at reducing Medicare cost growth while preserving quality. These proposals automatically will be implemented unless Congress enacts alternative proposals that achieve the same savings targets. Further, the legislation calls for a Center for Medicare and Medicaid Innovation that will examine alternative payment methodologies and conduct demonstration programs. The legislation provides for extensive health insurance reforms, including the elimination of pre-existing condition exclusions and other limitations on coverage, fixed percentages on medical loss ratios, expansion in Medicaid and other programs, employer mandates, individual mandates, creation of state and regional health insurance exchanges, and tax subsidies for individuals to help cover the cost of individual insurance coverage. The legislation also permits the establishment of accountable care organizations, a new healthcare delivery model. While the ultimate impact of the legislation on the healthcare industry is unknown, it is likely to be extensive and may result in significant change. Our failure to adapt to these changes could have a material adverse effect on our business.

A significant component of our revenue is dependent on successful insurance claims. Our revenue will be diminished if payors do not adequately cover or reimburse us for our services.

Physicians and patients may decide not to order our high-complexity genomic microarray tests unless third-party payors, such as managed care organizations as well as government payors such as Medicare and Medicaid, pay a substantial portion of the test price. Reimbursement by a third-party payor may depend on a number of factors, including a payor's determination that tests using our technologies are:

- not experimental or investigational;
- medically necessary;
- appropriate for the specific patient;

- cost-effective;
- supported by peer-reviewed publications; and
- included in clinical practice guidelines.

A substantial portion of the testing for which we bill our hospital and laboratory clients is ultimately paid by third-party payors. However, there is uncertainty concerning third-party payor reimbursement of any test, including our high-complexity genome microarray tests. Several entities conduct technology assessments of medical tests and devices and provide the results of their assessments for informational purposes to other parties. These assessments may be used by third-party payors and health care providers as grounds to deny coverage for a test or procedure. It is possible that federal, state and third-party insurers may limit their coverage of our tests in the future.

Increasing emphasis on managed care in the United States is likely to put pressure on the pricing of healthcare services. Uncertainty exists as to the coverage and reimbursement status of new applications or services. Governmental payors and private payors are scrutinizing new medical products and services. Such third-parties may not cover, or may limit coverage and resulting reimbursement for our services. Additionally, third-party insurance coverage may not be available to patients for any of our existing tests or tests we may add in the future. Any pricing pressure exerted by these third-party payors on our customers may, in turn, be exerted by our customers on us. If governmental payors, including their contracted administrators, and other third-party payors do not provide adequate coverage and/or timely reimbursement for our services, our operating results, cash flows, or financial condition may materially decline.

Our business could be adversely impacted by the adoption of new coding for molecular genetic tests.

In October 2010, the American Medical Association CPT Editorial Panel approved 27 new analyte specific codes (and will consider additional codes in 2011) to describe several molecular genetic tests that currently require multiple CPT codes for billing purposes. The new codes could replace the current codes for payers, including Medicare, beginning January 1, 2012. Reimbursement levels for the new codes have yet to be determined. If reimbursement levels for the new codes do not recognize the value of the molecular genetic tests, our revenues and earnings could be adversely impacted.

Our cash flows and financial condition may materially decline if payors do not reimburse us for our services in a timely manner.

We depend on our payors to reimburse us for our services in timely manner. If our payors, particularly Medicare or Medicare's designated administrator, do not reimburse us in a timely manner, our cash flows and financial condition may materially decline.

Third-party billing is extremely complicated and could result in us incurring significant additional costs.

Billing for esoteric laboratory services is extremely complicated. The customer is the party that refers the tests and the payor is the party that pays for the tests, and the two are not always the same. Depending on the billing arrangement and/or applicable law, we need to bill various payors, such as patients, health insurance companies, Medicare, Medicaid, doctors and employer groups, all of which have different billing requirements. Health insurance companies and governmental payors also generally require complete and correct billing information within certain filing deadlines. Additionally, our billing relationships require us to undertake internal audits to evaluate compliance with applicable laws and regulations as well as internal compliance policies and procedures. Health insurance companies also impose routine external audits to evaluate payments made. Additional factors complicating billing are:

- pricing differences between our fee schedules and the reimbursement rates of the payors;

- disputes with payors as to which party is responsible for payment; and
- disparity in coverage and information requirements among various carriers.

We incur significant additional costs as a result of our participation in the Medicare and Medicaid programs, as billing and reimbursement for laboratory testing are subject to considerable and complex federal and state regulations. The additional costs we expect to incur as a result of our participation in the Medicare and Medicaid programs include costs related to, among other factors: (1) complexity added to our billing processes; (2) training and education of our employees and customers; (3) implementing compliance procedures and oversight; (4) collections and legal costs; (5) challenging coverage and payment denials; and (6) providing patients with information regarding claims processing and services, such as advanced beneficiary notices. If these costs increase, our results of operations will be materially adversely affected.

Loss of or adverse changes to our accreditations or licenses could materially and adversely affect our business, prospects and results of operations.

The clinical laboratory testing industry is highly regulated. We are subject to CLIA, a federal law that regulates clinical laboratories that perform testing on specimens derived from humans for the purpose of providing information for the diagnosis, prevention or treatment of disease. CLIA is intended to ensure the quality and reliability of clinical laboratories in the United States by mandating specific standards in the areas of personnel qualifications, administration, and participation in proficiency testing, patient test management, quality control, quality assurance and inspections. We have a current certificate of accreditation under CLIA to perform testing. To renew this certificate, we are subject to survey and inspection every two years. Moreover, CLIA inspectors may make random inspections of our clinical reference laboratory. A failure to pass such inspections would result in suspension of our certificate of accreditation, which would have a material adverse effect on our business and results of operations.

We are also required to maintain a license to conduct testing in California. California laws establish standards for day-to-day operation of our clinical reference laboratory, including the training and skills required of personnel and quality control. Moreover, several states require that we hold licenses to test specimens from patients in those states. Other states may have similar requirements or may adopt similar requirements in the future. A failure to obtain and maintain these licenses would have a material adverse effect on our business and results of operations

Complying with numerous regulations pertaining to our business is an expensive and time-consuming process, failure of which could result in significant penalties and suspension of one or more of our licenses.

Areas of the regulatory environment that may affect our ability to conduct business include, without limitation:

- Federal and state laws applicable to billing and claims payment and/or regulatory agencies enforcing those laws and regulations;
- Federal and state laboratory anti-mark-up laws;
- Federal and state anti-kickback laws;
- Federal and state false claims laws;
- Federal and state self-referral and financial inducement laws, including the federal physician anti-self-referral law, or the Stark Law;
- Coverage and reimbursement levels by Medicare, Medicaid, other governmental payors and private insurers;
- Restrictions on reimbursements for our services;
- Federal and state laws governing laboratory testing, including CLIA;
- Federal and state laws governing the development, use and distribution of diagnostic medical tests known as "home brews";
- HIPAA;
- Federal and state regulation of privacy, security and electronic transactions;
- State laws regarding prohibitions on the corporate practice of medicine;
- State laws regarding prohibitions on fee-splitting;
- Federal, state and local laws governing the handling and disposal of medical and hazardous waste; and
- Occupational Safety and Health Administration ("OSHA") rules and regulations.

The above noted laws and regulations are extremely complex and in many instances, there are no significant regulatory or judicial interpretations of such laws and regulations. We also may be subject to regulation in foreign jurisdictions as we seek to expand international distribution of our tests. Any determination that we have violated these laws, or the public announcement that we are being investigated for possible violations of these laws, would materially adversely affect our business, prospects, results of operations and financial condition. In addition, a significant change in any of these laws may require us to change our business model in order to maintain compliance with these laws, which could reduce our revenue or increase our costs and materially adversely affect our business, prospects, results of operations, and financial condition.

We are subject to significant environmental, health and safety regulation.

We are subject to licensing and regulation under federal, state and local laws and regulations relating to the protection of the environment and human health and safety, including laws and regulations relating to the handling, transportation and disposal of medical specimens, infectious and hazardous waste and radioactive materials, as well as to the safety and health of laboratory employees. In addition, OSHA has established extensive requirements relating to workplace safety for health care employers, including clinical laboratories, whose workers may be exposed to blood-borne pathogens such as HIV and the hepatitis B virus. These regulations, among other things, require work practice controls, protective clothing

and equipment, training, medical follow-up, vaccinations, and other measures designed to minimize exposure to, and transmission of, blood-borne pathogens. In addition, the federally-enacted Needlestick Safety and Prevention Act requires, among other things, that we include in our safety programs the evaluation and use of engineering controls such as safety needles if found to be effective at reducing the risk of needlestick injuries in the workplace. If we are found in violation of any of these regulations, we could be subject to substantial penalties or discipline and our business, prospects and results of operations could be materially and adversely affected.

We are subject to federal and state laws governing the financial relationship among healthcare providers, including Medicare and Medicaid laws, and our failure to comply with these laws could result in significant penalties and other material adverse consequences.

We anticipate that a significant component of our future revenue will be dependent on reimbursement from Medicare and state Medicaid programs. The Medicare program is administered by CMS which, like the states that administer their respective state Medicaid programs, imposes extensive and detailed requirements on diagnostic services providers, including, but not limited to, rules that govern how we structure our relationships with physicians, how and when we submit reimbursement claims and how we provide our specialized diagnostic services. Our failure to comply with applicable Medicare, Medicaid and other governmental payor rules could result in our inability to participate in a governmental payor program, our returning of funds already paid to us, civil monetary penalties, criminal penalties and/or limitations on the operational function of our laboratory. Any of these outcomes would have a material adverse effect on our business and results of operations.

Our business is subject to stringent laws and regulations governing the privacy, security and transmission of medical information, and our failure to comply could subject us to criminal penalties and civil sanctions.

Governmental laws and regulations protect the privacy, security and transmission of medical information. Such laws and regulations restrict our ability to use or disclose patient identifiable laboratory data, without patient authorization, for purposes other than payment, treatment or healthcare operations (as defined by HIPAA), except for disclosures for various public policy purposes and other permitted purposes outlined in the privacy regulations. The privacy and security regulations provide for significant fines and other penalties for wrongful use or disclosure of PHI, including potential civil and criminal fines and penalties. We also could incur damages under state laws to private parties for the wrongful use or disclosure of confidential health information or other private personal information.

Our product development efforts may be hindered if we are unable to gain access to patients' tissue and blood samples.

The development of our diagnostic products requires access to tissue and blood samples from patients who have the diseases we are addressing. Our clinical development relies on our ability to secure access to these samples, as well as information pertaining to their associated clinical outcomes. Access to samples can be difficult since it may involve multiple levels of approval, complex usage rights and privacy rights, among other issues. Lack of or limited access to samples would harm our future product development efforts, which would have a material adverse effect on our business and results of operations

If our current laboratory facility becomes inoperable or loses certification, we will be unable to perform our tests and our business will be materially adversely affected.

Our diagnostic tests are operated out of our CLIA-certified laboratory in Irvine, California. Currently, we do not have a second certified laboratory. Should our only CLIA-certified laboratory be unable to perform tests, for any reason, we may be unable to perform needed diagnostic tests in connection with our product development and our business will be materially adversely affected.

Our future success depends on the continued service from our scientific, technical and key management personnel and our ability to identify, hire and retain additional scientific, technical and key management personnel in the future.

There is intense competition for qualified personnel in our industry, particularly for laboratory technicians, scientific and medical experts, and senior level management. Loss of the services of, or failure to recruit, these key personnel functions could be significantly detrimental to us and could materially adversely affect our business and operating results. We may not be able to continue to attract and retain scientific and medical experts or other qualified personnel necessary for the development of our business or to replace key personnel who may leave us in the future. If our business grows, it will place increased demands on our resources and likely will require the addition of new management personnel. An inability to recruit and retain qualified management and employees on commercially reasonable terms would adversely and materially affect our business.

The FDA may decide to regulate Laboratory Developed Tests ("LDTs"), which could prevent us from offering existing tests and/or delay the introduction of new testing services.

During 2010, the FDA publicly announced that it has decided to exercise regulatory authority over LDTs and that it plans to issue guidance to the industry regarding its regulatory approach. The FDA has indicated that it will use a risk-based approach to regulation and will direct more resources to tests with wider distribution and with the highest risk of injury, but that it will be sensitive to the need to not adversely impact patient care or innovation. The FDA has not announced a framework or timetable for implementing its new regulatory approach. The regulatory approach adopted by the FDA may lead to an increased regulatory burden, including additional costs and delays in introducing new tests. While the ultimate impact of the FDA's approach is unknown, it may be extensive and may result in significant change. Our failure to adapt to these changes could have a material adverse effect on our business.

As our operations expand, our costs to comply with environmental laws and regulations will increase, and failure to comply with these laws and regulations could materially harm our financial results.

Our operations involve the use, transportation, storage and disposal of hazardous substances and as a result we are subject to environmental and health and safety laws and regulations. As we expand our operations, our use of hazardous substances will increase and lead to additional and more stringent requirements. The cost to comply with these and any future environmental and health and safety regulations could be substantial. In addition, our failure to comply with laws and regulations, and any releases of hazardous substances into the environment or at our disposal sites, could expose our group to substantial liability in the form of fines, penalties, remediation costs and other damages, or could lead to a curtailment or shut down of our operations. These types of events, if they occur, would materially adversely affect our financial results.

Any litigation to protect our intellectual property, or any third-party claims of infringement, could divert substantial time and money from our business and could shut down some of our operations.

Our commercial success depends, in part, on our non-infringement of the patents or proprietary rights of third-parties. Many companies developing technology for the biotechnology and pharmaceutical industries use litigation aggressively as a strategy to protect and expand the scope of their intellectual property rights. Accordingly, third-parties may assert that we are employing their proprietary technology without authorization. In addition, third-parties may claim that use of our technologies infringes their current or future patents. We could incur substantial costs defending against such allegations regardless of their merit, and the attention of our management and technical personnel could be diverted while defending ourselves against any of these claims. We may incur the same liabilities in enforcing our patents against others. We have not made any provision in our financial plans for potential intellectual property

related litigation, and we may not be able to pursue litigation as aggressively as competitors with substantially greater financial resources.

If parties making infringement claims against us are successful, they may be able to obtain injunctive or other relief, which effectively could block our ability to further develop, commercialize, and sell products and/or services, and could result in the award of substantial damages against us. If we are unsuccessful in protecting and expanding the scope of our intellectual property rights, our competitors may be able to develop, commercialize, and sell products and/or services that compete against us using similar technologies or obtain patents that could effectively block our ability to further develop, commercialize, and sell our products and/or services. In the event of a successful claim of infringement against us, we may be required to pay substantial damages and either discontinue those aspects of our business involving the technology upon which we infringed or obtain one or more licenses from third-parties, which may not be available on commercially reasonable terms or at all. While we may license additional technology in the future, we may not be able to obtain these licenses at a reasonable cost, or at all. In that event, we could encounter delays in product introductions while we attempt to develop alternative methods or products, and such attempts may not be successful. Defense of any lawsuit or failure to obtain any of these licenses could prevent us from commercializing available products and/or services, which would have a material adverse effect on our business and results of operations.

We could face substantial liabilities if we are sued for product liability.

Product liability claims could be filed by someone alleging that our product failed to perform as claimed. We may also be subject to liability for errors in the performance of our tests. Such product liability and related claims could be substantial. Though we believe we carry sufficient liability insurance, defense of such claims could be time consuming and expensive and could result in damages that are not covered by our insurance.

Exposure to possible litigation and legal liability may adversely affect our business, financial condition and results of operations.

In the past, we have been exposed to a variety of litigation claims and there can be no assurance that we will not be subject to other litigation in the future that may adversely affect our business, financial condition or results of operations. On February 14, 2011, Relator Michael Strathmann, PhD. served us with a Complaint filed in the Superior Court of the State of California for the County of Orange. The Complaint alleges that we submitted false and fraudulent insurance claims to National Union Fire Insurance Company of Pittsburgh, PA in connection with a prior lawsuit that was settled with Nanogen, Inc., thereby allegedly violating the California Insurance Fraud Prevention Act, and seeks penalties and unspecified treble damages. Defense of this lawsuit could be time-consuming and expensive, and there can be no assurance that we will be successful in our defense.

Failure to effectively manage our growth could place strains on our managerial, operational and financial resources and could materially adversely affect our business and operating results.

Our growth has placed, and is expected to continue to place, a strain on our managerial, operational and financial resources. Any further growth by us or an increase in the number of our strategic relationships will increase this strain on our managerial, operational and financial resources. This strain may inhibit our ability to achieve the rapid execution necessary to successfully implement our business plan.

As a public company, we are subject to complex legal and accounting requirements that will require us to incur substantial expense and will expose us to risk of non-compliance.

As a public company, we are subject to numerous legal and accounting requirements that do not apply to private companies. The cost of compliance with many of these requirements is substantial, not only in absolute terms but, more importantly, in relation to the overall scope of the operations of a small company. Failure to comply with these requirements can have numerous adverse consequences including, but not limited to, our inability to file required periodic reports on a timely basis, which would result in the loss of our eligibility to use Form S-3 for raising capital, loss of market confidence, delisting of our securities and/or governmental or private actions against us. We cannot assure you that we will be able to comply with all of these requirements or that the cost of such compliance will not prove to be a substantial competitive disadvantage vis-à-vis our privately held and larger public competitors.

Ethical, legal and social concerns surrounding the use of genetic information could reduce demand for our test offerings.

Genetic testing has raised ethical issues regarding privacy 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 certain conditions, particularly for those that have no known cure. Similarly, such concerns may lead individuals to refuse to use genetics tests even if permissible. Any of these scenarios could reduce the potential markets for our molecular diagnostic products, which reduction could have a material adverse effect on our business.

Risks Related To Investment In Our Securities

Small company stock prices are especially volatile, and this volatility may depress the price of our stock.

The stock market has experienced significant price and volume fluctuations, and the market prices of small companies have been highly volatile. We believe that various factors may cause the market price of our stock to fluctuate, perhaps substantially, including, among others, announcements of:

- our or our competitors' technological innovations;
- supply, manufacturing, or distribution disruptions or other similar problems;
- proposed laws regulating participants in the laboratory services industry;
- developments in relationships with collaborative partners or customers;
- our failure to meet or exceed securities analysts' expectations of our financial results; or
- a change in financial estimates or securities analysts' recommendations.

In the past, companies that have experienced volatility in the market price of their stock have been the objects of securities class action litigation. If we become the object of securities class action litigation, it could result in substantial costs and a diversion of management's attention and resources, all of which could materially adversely affect the business and financial results of our business.

While warrants to purchase our common stock are outstanding, it may be more difficult to raise additional equity capital.

As of December 31, 2010, there were outstanding warrants to purchase approximately 3.7 million shares of our common stock. We may find it more difficult to raise additional equity capital while some or all of these warrants are outstanding. At any time during which these warrants are likely to be exercised, we may not be able to obtain financing on favorable terms, or at all. If we are unable to obtain financing, our business, results of operations, or financial condition could be materially and adversely affected, and we could be forced to curtail or cease operations.

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

Sales of a substantial number of shares of our common stock or other securities in the public markets, or the perception that these sales may occur, could cause the market price of our common stock or other securities to decline and could materially impair our ability to raise capital through the sale of additional securities. If we raise additional capital in the future through the use of our existing registration statement or if we agree to register privately placed shares for resale on a registration statement, such additional shares would be freely tradable, and, if significant in amount, such sales could further adversely affect the market price of our common stock. The sale of a large number of shares of our common stock also might make it more difficult for us to sell equity or equity-related securities in the future at a time and at the prices that we deem appropriate.

We may fail to meet market expectations because of fluctuations in our quarterly operating results, all of which could cause our stock price to decline.

Our revenues and operating results have fluctuated in the past and may continue to fluctuate significantly from quarter to quarter in the future. It is possible that, in future periods, our revenues could fall below the expectations of securities analysts or investors, all of which could cause the market price of our stock to decline. The following are among the factors that could cause our operating results to fluctuate significantly from period to period:

- our unpredictable revenue sources;
- the nature, pricing and timing of our and our competitors' products;
- changes in our and our competitors' research and development budgets;
- expenses related to, and our ability to comply with, governmental regulations of our products and processes; and
- expenses related to, and the results of, patent filings and other proceedings relating to intellectual property rights.

We anticipate significant fixed expenses due in part to our need to continue to invest in product development. We may be unable to adjust our expenditures if revenues in a particular period fail to meet our expectations, all of which would materially adversely affect our operating results for that period. As a result of these fluctuations, we believe that period-to-period comparisons of our financial results will not necessarily be meaningful, and you should not rely on these comparisons as an indication of our future performance.

Future declines in the price of our common stock or deterioration in our financial condition could result in the delisting of our common stock from the Nasdaq Capital Market.

If the price of our common stock declines below Nasdaq's $1.00 minimum bid price requirement for an extended period of time, or if we fail to maintain a minimum of $2,500,000 in stockholders' equity or $35,000,000 market value of listed securities or $500,000 of net income from continuing operations, our common stock could be delisted by the Nasdaq Capital Market. If our common stock is delisted from the Nasdaq Capital Market, the market for your shares may be limited, and as a result, you may not be able to sell your shares at an acceptable price, or at all. In addition, a delisting may make it more difficult or expensive for us to raise additional capital in the future.

If we are delisted from the Nasdaq Capital Market, your ability to sell your shares of our common stock would also be limited by the penny stock restrictions, which could further limit the marketability of your shares.

If our common stock is delisted, it would come within the definition of "penny stock" as defined in the Securities Exchange Act of 1934 and would be covered by Rule 15g-9 of the Securities Exchange Act of 1934. That Rule imposes additional sales practice requirements on broker-dealers who sell securities to persons other than established customers and accredited investors. For transactions covered by Rule 15g-9, the broker-dealer must make a special suitability determination for the purchaser and receive the purchaser's written agreement to the transaction prior to the sale. Consequently, Rule 15g-9, if it were to become applicable, would affect the ability or willingness of broker-dealers to sell our securities, and accordingly would affect the ability of stockholders to sell their securities in the public market. These additional procedures could also limit our ability to raise additional capital in the future.

Risks Related To Our Split-Off From Acacia Research Corporation

Our separation agreements with Acacia require us to assume the past, present and future liabilities related to our business and may be less favorable to us than if they had been negotiated with unaffiliated third parties.

We have negotiated and entered into our separation agreements with Acacia at a time when we were a wholly owned subsidiary of Acacia and they were our only shareholder. Had these agreements been negotiated with unaffiliated third-parties, they might have been more favorable to us. Pursuant to the terms of these agreements, we have agreed to indemnify Acacia for, among other matters, all past, present and future liabilities related to our business, and we have assumed these liabilities under the separation agreements. The past, present and future liabilities assumed by us are the same as those previously allocated to us prior to the Split-Off and reflected in our consolidated financial statements included in this report and disclosed by us in previous filings with the SEC as well as by Acacia. Nonetheless, the allocation of assets and liabilities between Acacia and us may not reflect the allocation that would have been reached between two unaffiliated parties.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

We currently lease office and laboratory space of approximately 12,300 square feet in Irvine, California under a lease agreement that expires in January 2013.

Item 3. LEGAL PROCEEDINGS

On February 14, 2011, Relator Michael Strathmann, PhD. served us with a Complaint filed in the Superior Court of the State of California for the County of Orange. The Complaint alleges that we submitted false and fraudulent insurance claims to National Union Fire Insurance Company of Pittsburgh, PA in connection with a prior lawsuit that was settled with Nanogen, Inc., thereby allegedly violating the California Insurance Fraud Prevention Act, and seeks penalties and unspecified treble damages. We believe this litigation is frivolous and intend to vigorously defend it, but there can be no assurance that we will be successful in doing so.

From time to time, we are involved in other litigation arising in the normal course of business. Management believes that resolution of these matters will not result in any payment that, in the aggregate, would be material to our financial position or results of operations.

Item 4. (REMOVED AND RESERVED)

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Recent Market Prices

The following table sets forth, for the periods indicated, the high and low quarterly sales prices of our common stock as reported by the NASDAQ Global Market under the symbol of "CBMX" until December 9, 2010 and as reported by the NASDAQ Capital Market under the symbol of "CBMX" after December 9, 2010. These prices represent prices among dealers, do not include retail markups, markdowns or commissions, and may not represent actual transactions.

	2010				2009			
	Fourth Quarter	Third Quarter	Second Quarter	First Quarter	Fourth Quarter	Third Quarter	Second Quarter	First Quarter
High	$2.94	$3.65	$5.10	$7.80	$6.70	$7.33	$8.49	$10.05
Low	$1.60	$2.19	$2.11	$4.76	$5.50	$5.41	$6.30	$ 6.55

As of March 15, 2011, there were approximately 45 holders of record of our common stock.

No dividends have been paid on our common stock. We currently intend to retain all future earnings, if any, for use in our business and do not anticipate paying any cash dividends on our common stock in the foreseeable future.

Equity Compensation Plan Information

The following table provides information with respect to our common shares issuable under our equity compensation plans as of December 31, 2010:

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options	(b) Weighted average exercise price of outstanding options	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders:			
2006 CombiMatrix Stock Incentive Plan(1)	1,677,896	$5.91	6,749,553
Equity compensation plans not approved by security holders:			
None	—	—	—
TOTAL	1,677,896	$5.91	6,749,553

(1) Our 2006 CombiMatrix Stock Incentive Plan as amended, or the CombiMatrix Plan, allows for the granting of stock options and other awards to eligible individuals, which generally includes directors, officers, employees and consultants. The share reserve under the CombiMatrix Plan automatically increases on the first trading day in January each calendar year by an amount equal to three percent (3%) of the total number of shares of our common stock outstanding on the last trading day of December in the prior calendar year; in no event will the total number of shares of common stock in

the share reserve (as adjusted for all such annual increases) exceed thirty million shares. Please refer to Note 14 to our consolidated financial statements for additional information.

Recent Sales of Unregistered Securities

None.

Purchases of Equity Securities by the Issuer or Affiliated Purchasers

None.

Item 6. SELECTED FINANCIAL DATA

Not required for smaller reporting companies.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with our consolidated financial statements included elsewhere in this report. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors including those set forth under the heading "Risk Factors" elsewhere in this report.

General

Prior to 2010, we were primarily focused on developing proprietary DNA array-based tools and instruments for the genetic research community, under the brand formerly known as "CustomArray," as well as providing molecular diagnostics services through our wholly owned subsidiary, CombiMatrix Diagnostics ("CMDX"). On April 19, 2010, we announced a strategic and operational restructuring plan (the "Restructuring Plan") intended to significantly reduce operating costs, increase the focus on our diagnostic services business and transition senior management. As part of the Restructuring Plan, we closed our CustomArray business and facilities located in Mukilteo, Washington and relocated our corporate headquarters to Irvine, California. Since the restructuring, our strategic focus is on commercializing our diagnostics services business by increasing the volume of our existing tests, expanding the number of tests offered by our laboratory, increasing the number of customers and partners, and improving reimbursement for our testing. We also initiated a search for a new President and Chief Executive Officer, which was completed on August 11, 2010 with the hiring of R. Judd Jessup. Concurrent with Mr. Jessup's appointment, Mark McGowan, our Chairman of the Board of Directors, discontinued serving as interim President and CEO, a role which he had assumed as a result of Dr. Amit Kumar's resignation from that role on June 30, 2010. Dr. Kumar was our President and CEO from September 2001 to June 30, 2010.

As a result of executing the Restructuring Plan, the financial results of our CustomArray business have been classified as discontinued operations in the consolidated statements of operations for all periods presented. See Note 3 to our consolidated financial statements for additional information regarding discontinued operations. Unless otherwise noted, amounts and disclosures throughout this report relate to our continuing operations.

We are a molecular diagnostics company that operates primarily in the field of genetic analysis and molecular diagnostics through our wholly owned subsidiary, CombiMatrix Diagnostics ("CMDX"), located in Irvine, California. CMDX operates as a diagnostics reference laboratory that provides DNA-based clinical diagnostic testing services to physicians, hospitals and other laboratories in two primary areas: (i) prenatal and postnatal developmental disorders; and (ii) oncology. CMDX provides its services through

the use of array-comparative genomic hybridization ("aCGH"), which enables the analysis of genetic anomalies. Our mission is to empower physicians to positively impact patient care through the delivery of innovative DNA-based clinical services.

We also own a one-third minority interest in Leuchemix, Inc. ("Leuchemix"), a private drug development company focused on developing a series of compounds to address a number of oncology-related diseases.

Prior Relationship With Acacia Research Corporation

We were originally incorporated in October 1995 as a California corporation and later reincorporated as a Delaware corporation in September 2000. In December 2002, we merged with and became a wholly owned subsidiary of Acacia Research Corporation ("Acacia"). In December 2006, we filed a registration statement with the U.S. Securities and Exchange Commission ("SEC") in order to register our common stock under the Securities Act of 1933 as part of a plan to split-off from Acacia (the "Split-Off"). On August 15, 2007 (the "Split-Off Date"), the Split-Off was effected and our common stock became publicly traded on the Nasdaq Stock Market (symbol: CBMX). As of the Split-Off Date, we ceased to be a subsidiary of, or affiliated with, Acacia.

Liquidity

At December 31, 2010, we had cash and cash equivalents of $6.6 million. As a result, we anticipate that our cash and cash equivalent balances, anticipated cash flows from operations and anticipated operating cash savings from our Restructuring Plan will be sufficient to meet our cash requirements into the fourth quarter of 2011. In order for us to continue as a going concern beyond this point and ultimately to achieve profitability, we may be required to obtain capital from external sources, increase revenues and reduce operating costs. However, there can be no assurances that our operations will become profitable or that external sources of financing, including the issuance of debt and/or equity securities, will be available at times and at terms acceptable to us, or at all. The issuance of additional equity or convertible debt securities will also cause dilution to our shareholders. If external financing sources are not available or are inadequate to fund our operations, we will be required to reduce operating costs, including research projects and personnel, which could jeopardize our future strategic initiatives and business plans. See the Liquidity and Capital Resources section below as well as Note 1 to our consolidated financial statements included elsewhere in this report for additional discussion of these matters.

Overview Of Recent Business Activities

During 2010, our business activities were driven primarily by our Restructuring Plan, which was initiated during the second quarter and was substantially completed by the end of the third quarter of 2010. During this time we closed our CustomArray business, relocated our corporate headquarters to Irvine, California, and hired R. Judd Jessup as our President and Chief Executive Officer. We also strengthened our senior management team by hiring Daniel Forche as Senior Vice President of Sales and Marketing during the fourth quarter of 2010. We also added Mark McGowan to our board of directors, who became Chairman of the Board during the second quarter.

Critical Accounting Policies

Our consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States of America. In preparing these financial statements, we make assumptions, judgments and estimates that can have a significant impact on amounts reported in our financial statements. We base our assumptions, judgments and estimates on historical experience and various other factors that we believe to be reasonable under the circumstances. Actual results could differ materially

from these estimates under different assumptions or conditions. On a regular basis we evaluate our assumptions, judgments and estimates and make changes accordingly.

We believe that, of the significant accounting policies discussed in Note 2 to our consolidated financial statements, the following accounting policies require our most difficult, subjective or complex judgments:

- revenue recognition;
- accounting for stock-based compensation;
- fair value measurements;
- accounting for derivatives embedded in certain debt securities;
- accounting for income taxes; and
- valuation of long-lived and intangible assets and goodwill.

We discuss below the critical accounting assumptions, judgments and estimates associated with these policies. Historically, our assumptions, judgments and estimates relative to our critical accounting policies have not differed materially from actual results. For further information on our critical accounting policies, refer to Note 2 to our consolidated financial statements included elsewhere in this report.

Revenue Recognition

As described below, significant management judgments must be made and used in connection with the revenue recognized in any accounting period. Material differences may result in the amount and timing of revenue recognized or deferred for any period if management made different judgments.

In general, We recognize revenue when (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred or services have been performed, (iii) amounts are fixed or determinable and (iv) collectability of amounts is reasonably assured.

Service revenues from providing diagnostic tests are recognized when the testing process is complete and test results are reported to the ordering physician or clinic. These diagnostic services are billed to various payors, including commercial insurance companies, healthcare institutions, individuals and government payors including Medicare and Medicaid. We report revenues from contracted payors based on a contractual rate, or in the case of Medicare and Medicaid, published fee schedules for our tests. We report revenues from non-contracted payors based on the amount expected to be collected. The difference between the amount billed and the amount expected to be collected from non-contracted payors is recorded as a contractual allowance to arrive at net recognized revenues. The expected revenues from non-contracted payors are based on the historical collection experience of each payor or payor group, as appropriate. In each reporting period, we review our historical collection experience for non-contracted payors and adjust our expected revenues for current and subsequent periods accordingly. Because a substantial portion of our revenues is from non-contracted third-party payors, it is likely that we will be required to make positive or negative adjustments to accounting estimates with respect to contractual allowances in the future, which may positively or adversely affect our results of operations.

Revenues from the sale of aCGH slides, including shipping and handling fees but excluding statutory taxes collected from customers, as applicable, are recognized when delivery occurs. There is no written or implied right to return or exchange the products.

Revenues from multiple element arrangements are based on the relative selling price method, whereby we allocate consideration received to all deliverables of an arrangement at the inception of the arrangement based on the relative selling prices of each element. In order to determine the selling price of a deliverable, we apply the following hierarchy: 1) vendor-specific objective evidence ("VSOE"); 2) third-party evidence if VSOE is not available; and 3) our best estimate of selling price for the deliverable if

neither VSOE nor third-party evidence is available. Several factors are considered when determining the estimated selling price of a deliverable, including, but not limited to, the cost to produce the deliverable, the expected margin on that deliverable, our ongoing pricing strategy and policies and the value-added components of differentiated deliverables, if determinable. In order for a deliverable to be accounted for as a separate unit of accounting, both of the following criteria must be met: 1) the delivered item or items have value to the customer on a standalone basis; and 2) when a general right of return exists, the delivery or performance of an undelivered item is considered probable and under our control. Our revenue arrangements do not have a general right of return. When a deliverable does not meet the criteria to be considered a separate unit of accounting, we group that deliverable with other deliverables that, when combined, meet the criteria, and the appropriate allocation of arrangement consideration and revenue recognition is determined.

Accounting for Stock-Based Compensation

The compensation cost for all stock-based awards is measured at the grant date, based on the fair value of the award, and is recognized as an expense, on a straight-line basis, over the employee's requisite service period (generally the vesting period of the equity award) which is generally three years. The fair value of each option award is estimated on the date of grant using a Black-Scholes option valuation model. Stock-based compensation expense is recognized only for those awards that are expected to vest using an estimated forfeiture rate. We estimate pre-vesting option forfeitures at the time of grant and reflect the impact of estimated pre-vesting option forfeitures in compensation expense recognized.

Fair Value Measurements

We measure fair value as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that is determined based on assumptions that market participants would use in pricing an asset or liability. We utilize a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

- Level 1: Observable market inputs such as quoted prices in active markets;
- Level 2: Observable market inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and
- Level 3: Unobservable inputs where there is little or no market data, which require the reporting entity to develop its own assumptions

Derivatives Embedded in Certain Debt Securities

We evaluate financial instruments for freestanding or embedded derivatives. Derivative instruments that have been separated from the host contract and do not qualify for hedge accounting are recorded at fair value with changes in value recognized in as other income (expense) in the consolidated statements of operations in the period of change.

Accounting for Income Taxes

We recognize income taxes on an accrual basis based on tax positions taken or expected to be taken in our tax returns. A tax position is defined as a position in a previously filed tax return or a position expected to be taken in a future tax filing that is reflected in measuring current or deferred income tax assets and liabilities. Tax positions are recognized only when it is more likely than not (i.e., likelihood of greater than 50%), based on technical merits, that the position would be sustained upon examination by taxing authorities. Tax positions that meet the more likely than not threshold are measured using a probability-weighted approach as the largest amount of tax benefit that has a greater than 50% likelihood of being

realized upon settlement. Income taxes are accounted for using an asset and liability approach that requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in our financial statements or tax returns. A valuation allowance is established to reduce deferred tax assets if all, or some portion, of such assets will more than likely not be realized. Should they occur, our policy is to classify interest and penalties related to tax positions as income tax expense. Since our inception, no such interest or penalties have been incurred, however.

Valuation of Long-Lived and Intangible Assets and Goodwill

Long-lived assets and intangible assets are reviewed for potential impairment when events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. In the event the sum of the expected undiscounted future cash flows resulting from the use of the asset is less than the carrying amount of the asset, an impairment loss equal to the excess of the asset's carrying value over its fair value is recorded. If an asset is determined to be impaired, the loss is measured based on quoted market prices in active markets, if available. If quoted market prices are not available, the estimate of fair value is based on various valuation techniques, including a discounted value of estimated future cash flows. Due to the Restructuring Plan, management determined that our patent intangible assets were impaired. This matter is discussed more fully in Note 3 to our consolidated financial statements included elsewhere in this report.

Goodwill is evaluated annually for impairment at the reporting unit level, or earlier if an event occurs or circumstances change that would more likely than not indicate that the fair value of a reporting unit is below its carrying amount. A reporting unit can be an operating segment or a business if discrete financial information is prepared and reviewed by management. Under the impairment test, if a reporting unit's carrying amount exceeds its estimated fair value, goodwill impairment is recognized to the extent that the reporting unit's carrying amount of goodwill exceeds the implied fair value of the goodwill. We performed our annual impairment test during the fourth quarter of 2009 and determined that goodwill was not impaired. During the second quarter of 2010, the Company's fair value (as determined by the trading price of our common stock on the Nasdaq Global Market at the time) fell below our carrying value, triggering an impairment analysis. This matter is discussed more fully in Note 8 to our consolidated financial statements included elsewhere in this report.

Comparison of the Results of Operations

Revenues and Cost of Revenues (dollars in thousands):

	For the Years Ended December 31,		Change	
	2010	2009	$	%
Services	$ 3,283	$ 2,335	$ 948	41%
Cost of services	(1,931)	(1,354)	(577)	(43%)
Products	271	238	33	14%
Cost of products	(253)	(144)	(109)	(76%)

Services Revenues. Services revenues are generated from providing DNA-based genomic testing services in the areas of pre and postnatal development disorders in children as well as oncology. Services revenues increased primarily due to volume increases of our diagnostic tests in both categories as well as increases in average revenue recognized per test. Billable test volumes were 3,279 and 2,678 for the years ended December 31, 2010 and 2009, respectively. The increases were driven primarily by increased sales and market penetration over previous periods. Average revenue per test was approximately $1,001 and $905 for the years ended December 31, 2010 and 2009, respectively. This increase is due primarily to improved reimbursement from non-contracted third-party payors, resulting in higher average recognized revenues per test during 2010 compared with 2009.

Products Revenues. Product revenues are generated exclusively from selling bacterial artificial chromosome, or "BAC," arrays and related reagents to a single distributor located in Taiwan. For the year ended December 31, 2010 compared to 2009, product revenues increased due primarily to increased volumes of our BAC arrays delivered to the Taiwanese distributor. We have recently been notified from our distributor that its customers are considering other BAC array providers and as a result, it is likely that our revenues from product sales may decrease in future periods.

Cost of Products and Services Revenues. Cost of products and services include direct materials such as array and laboratory costs, direct laboratory labor (wages and benefits), allocation of overhead and stock-compensation expenses. Cost of services included $57,000 and $59,000, for the years ended December 31, 2010 and 2009, respectively, of non-cash stock compensation expense. These costs increased for the periods presented commensurate with the increases in revenues from 2009 to 2010.

Operating Expenses (dollars in thousands):

	For the Years Ended December 31,		Change	
	2010	**2009**	**$**	**%**
Research and development expenses	$ 2,033	$2,789	$ (756)	(27%)
Marketing, general and administrative expenses	7,667	6,536	1,131	17%
Patent amortization and royalties	190	275	(85)	(31%)
Equity in loss of investee	—	618	(618)	(100%)
Goodwill impairment	16,918	—	16,918	—

Research and Development Expenses. These expenses include labor and laboratory supply costs associated with investigating new tests, but primarily consist of development costs to maintain and improve our existing suite of diagnostic tests offered. Prior to launching a new test or modifying an existing test, appropriate clinical trials and extensive laboratory validations, consistent with the various regulatory bodies that govern our industry, must be performed. These costs are classified as research and development for all periods presented. The decrease during 2010 was due primarily to greater allocation of laboratory resources on production and commercial efforts compared to the prior comparable periods, where there was a greater emphasis on developing new tests. In addition, research and development expenses include non-cash stock compensation charges, which were $166,000 and $181,000 for the years ended December 31, 2010 and 2009, respectively. The decreases in stock compensation charges were due primarily to prior stock option awards to our employees which became fully vested during the current year.

Marketing, General and Administrative Expenses. These expenses include costs associated with marketing our tests to healthcare providers, compensation and benefit costs of our sales force and general and administrative staff, information technology, executive management, financial accounting and human resources, as well as facilities-related costs, insurance, legal, audit and other professional services. The increase was due primarily to increased sales and marketing activities as well as higher headcount during 2010. The 2010 marketing, general and administrative expenses also included a one time, $181,000 write-down of a cost-basis investment that in management's view had incurred another-than-temporary decline in the underlying market value of the investment, as well as one-time CEO recruiting costs. In addition, marketing, general and administrative expenses include non-cash stock compensation charges, which were $1.9 million and $1.9 million for the years ended December 31, 2010 and 2009, respectively. Non-cash stock compensation expenses reflect prior stock option awards becoming fully vested during 2010, partially offset by additional expense recognized from the issuance of new stock option grants made during 2010.

Equity in Loss of Investee. This expense represents our recognition under the equity method of accounting of our minority interest in the operations of Leuchemix, in which we own a one-third minority interest. During 2009, our equity investment in Leuchemix reached $0 and as a result, we ceased recognizing additional expense from their underlying operations. This has caused a decrease in this expense for the year ended December 31, 2010 compared to 2009.

Goodwill Impairment. The decline in our market capitalization during the second quarter of 2010 (as indicated by the trading price of our common stock on the Nasdaq Stock Market) was considered by management to be a potential goodwill impairment triggering event. As a result, we performed a business valuation using a market-based approach and determined that all of our $16.9 million in goodwill was impaired.

Other Non-Operating Items (dollars in thousands):

	For the Years Ended December 31,		Change	
	2010	2009	$	%
Qualified Therapeutic Discovery Program income	$ 489	$ —	$ 489	—
Litigation settlement gain	19,385	—	19,385	—
Loss from early extinguishment of debt	(572)	—	(572)	—
Interest income	7	19	(12)	(63%)
Interest expense	(361)	(2,110)	1,749	83%
Derivatives gains (charges)	605	(163)	768	(471%)

Qualified Therapeutic Discovery Program Income. We were awarded $489,000 in 2010 under the Internal Revenue Service's Section 48D for Qualifying Therapeutic Discovery Projects. Earlier in 2010, we submitted two grant proposals under this program and were notified that our applications were accepted and the related funds were paid, during the fourth quarter of 2010. We have not applied for, and do not expect to receive, any additional funding under this program. Also, since this program is non-recurring in nature, we elected to classify the payments as other income for the 2010 period presented.

Litigation Settlement Gain. In February 2010, we received gross proceeds of $25 million from entering into a settlement agreement with National Union Fire Insurance Company of Pittsburgh, PA. Contingent attorneys' costs and expenses relating to the settlement were $5.6 million. Thus, the net amount of the settlement gain recognized was $19.4 million during the year ended December 31, 2010. There were no such events in 2009.

Loss from Early Extinguishment of Debt. In March 2010, we fully retired our secured convertible debenture (the "Debenture"). As a result, the remaining, unamortized debt discount of $572,000 was written off as a non-operating loss from early extinguishment of debt in the year ended December 31, 2010. There were no such events in 2009.

Interest Expense. Since July 2008, interest expense was primarily comprised of interest charges associated with the Debenture, which accrued interest at an annual rate of 10% on the outstanding principal balance. Interest expense also included amortization of the $2.9 million of debt discount originally recognized from issuance of the Debenture and related warrants using the effective interest method. Interest expense decreased as a result of retiring the Debenture in March 2010. Remaining interest charges are from certain capital leases for laboratory equipment.

Derivative Gains (Charges). These gains (charges) represent the net gain or expense recognized from mark-to-model adjustments to the embedded derivatives associated with the Debenture that were outstanding during the periods presented. In accordance with U.S. GAAP, the conversion feature, cash

redemption option, potential acceleration of maturity of the Debenture and potential adjustments to the conversion price all represented embedded derivatives of the Debenture that were recorded separately at fair value as other liabilities, with the corresponding fair value adjustments reflected as non-operating charges or gains, depending upon the results of mark-to-model valuation adjustments. The fair value of the embedded derivatives was determined using the convertible bond model, discounted cash flows and binomial lattice models. In March 2010, the Debenture was retired. As a result, the remaining derivatives liability of $605,000 was written off as a non-operating gain in 2010.

Inflation

Inflation has not had a significant impact in the current or prior periods.

Liquidity and Capital Resources

At December 31, 2010, cash and cash equivalents totaled $6.6 million, compared to $5.4 million at December 31, 2009. The primary reasons for the net increase in 2010 are described below. Cash is held primarily in general checking accounts as well as in money market mutual funds backed by U.S. government securities. Working capital was $7.5 million at December 31, 2010, compared to $(3.0 million) at December 31, 2009. The change in working capital was due primarily to the impact of net cash flow activities as discussed below. The net change in cash and cash equivalents for the periods presented was comprised of the following (in thousands):

	For the Years Ended December 31,		
	2010	**2009**	**Change**
Net cash provided by (used in):			
Operating activities	$ 9,686	$(10,566)	$ 20,252
Investing activities	(105)	1,422	(1,527)
Financing activities	(8,468)	7,008	(15,476)
Increase (decrease) in cash and cash equivalents	$ 1,113	$ (2,136)	$ 3,249

Operating Activities. The overall net increase in cash provided by operating activities was due primarily to the net litigation settlement proceeds from National Union of $19.4 million received in February 2010.

Investing Activities. The decrease in net cash flows from investing activities was due primarily to our ongoing short-term cash management activities and changes in short-term investments in connection with certain financing activities discussed below. Fixed asset purchases were $105,000 and $104,000 in 2010 and 2009, respectively.

Financing Activities. The decrease in net cash flows from financing activities was due primarily to the repayment of the Debenture totaling $8.4 million during 2010 compared to repayment of a line of credit totaling $820,000 in 2009. Also, net proceeds from the sale of common stock and warrants as well as the exercise of common stock options were zero during 2010 compared to $7.6 million in 2009.

Restructuring Plan. On April 19, 2010, we announced a Restructuring Plan intended to focus our Company on our diagnostic services business while shutting down our CustomArray business. Total restructuring charges incurred through December 31, 2010 were $1.8 million (before sale of surplus property, equipment and inventory), of which $465,000 were non-cash write-downs, $1.2 million were paid out in cash as of December 31, 2010 and $109,000 were accrued as short-term payables and are expected to be paid out in subsequent periods. Net of proceeds received from the sales of surplus property, equipment and inventory, we recognized a loss from restructuring for the year ended December 31, 2010 of

$1.4 million, which is included as a component of loss from discontinued operations in our 2010 consolidated statement of operations.

Future Liquidity. We have a history of incurring net losses and net operating cash flow deficits. We are also deploying new technologies and continue to develop commercial products and services. We believe that our cash and cash equivalent balances, anticipated cash flows from operations and anticipated operating cash savings from our Restructuring Plan will be sufficient to meet our cash requirements through the fourth quarter of 2011.

In order for us to continue as a going concern beyond this point and ultimately to achieve profitability, we may be required to obtain capital from external sources, increase revenues and reduce operating costs. However, there can be no assurances that our operations will become profitable or that external sources of financing, including the issuance of debt and/or equity securities, will be available at times and at terms acceptable to us, or at all. The issuance of additional equity or convertible debt securities will also cause dilution to our shareholders. If external financing sources are not available or are inadequate to fund our operations, we will be required to reduce operating costs, which could jeopardize our future strategic initiatives and business plans. For example, reduction in operating costs could jeopardize our ability to launch, market and sell new diagnostics products and services necessary to grow and sustain our operations. The anticipation that we will be required to obtain additional financing in the foreseeable future raises substantial doubt about our ability to continue as a going concern beyond the fourth quarter of 2011. In addition to seeking additional capital from outside sources, our plans in regard to these matters include restructuring our business, which we executed in 2010, as well as reducing other costs that are not considered strategically vital to our business. See Note 1 to our consolidated financial statements included elsewhere in this report for additional discussion of these matters.

Capital Requirements. We may also encounter unforeseen difficulties that may deplete our capital resources more rapidly than anticipated. Any efforts to seek additional funding could be made through equity, debt or other external financing, and there can be no assurance that additional funding will be available on favorable terms, in a timely manner or at all. Our long-term capital requirements will be substantial and the adequacy of available funds will depend upon many factors, including:

- the costs of commercialization activities, including sales and marketing, manufacturing and capital equipment;
- the costs involved in filing, prosecuting, enforcing and defending any patents claims, should they arise;
- competing technological developments;
- the creation and formation of strategic partnerships;
- the costs associated with leasing and improving our Irvine, California facility; and
- other factors that may not be within our control.

Off-Balance Sheet Arrangements

As of December 31, 2010, we did not have any significant off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of Regulation S-K promulgated by the SEC. However, we have entered into an operating lease for our laboratory space and corporate offices, totaling approximately 12,300 square feet. We have no significant commitments for capital expenditures in 2011 or beyond. We have executed three capital leases totaling $286,000 for certain laboratory equipment.

Recent Accounting Pronouncements

Refer to Note 2 to our consolidated financial statements included elsewhere in this report.

Quantitative and Qualitative Disclosures About Market Risk

Not required for smaller reporting companies.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not required for smaller reporting companies.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial statements and related financial information required to be filed hereunder are indexed under Item 15 of this report and are incorporated herein by reference.

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

None.

Item 9A. CONTROLS AND PROCEDURES

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rules 13a-15(e) and 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended. Based on this evaluation, our principal executive officer and our principal financial officer concluded that, as of the end of the period covered by this annual report, our disclosure controls and procedures were effective to ensure that the information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934 is accumulated and communicated to management, including our chief executive officer and chief financial officer, to allow timely decisions regarding required disclosure, and that such information is recorded, processed, summarized and reported within the time periods prescribed by the SEC.

Management's Report on Internal Controls Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal controls over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f) and 15d-15(f). Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal controls over financial reporting based on the framework in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in Internal Control—Integrated Framework, our management concluded that our internal controls over financial reporting were effective as of December 31, 2010.

There has been no change in our internal controls over financial reporting that occurred during the fiscal quarter ended December 31, 2010 that has materially affected, or is reasonably expected to materially affect, our internal controls over financial reporting.

Item 9B. OTHER INFORMATION

On February 23, 2011, pursuant to the authority granted under our 2006 Stock Incentive Plan, our Compensation Committee adopted a 2011 Executive Performance Bonus Plan (the "Bonus Plan") to provide certain members of our senior management the opportunity to earn incentive bonuses based on our attainment of specific financial performance objectives for 2011. Our Compensation Committee determined that our Chief Executive Officer, Judd Jessup, our Chief Financial Officer, Scott Burell, our

Senior Vice President of Sales and Marketing, Dan Forche and our Vice President of Operations, Lony Lim, are eligible to receive such awards under the Bonus Plan.

A participant's bonus under the Bonus Plan will consist of a combination of cash and equity incentives and will be based on achievement of between 90% and 200% of our 2011 net revenue target as determined by our Compensation Committee. A participant's cash bonus will be an amount equal to (a) times (b), where (a) equals the participant's annual base salary and (b) equals a specified percentage of the participant's salary (ranging from 10% to 80%) that would be payable if we achieve a certain percentage of the target net revenue. In addition, on February 23, 2011 (the "Grant Date") and pursuant to the terms and conditions of the Bonus Plan, our Compensation Committee granted performance stock options to Messrs. Jessup, Burell, Forche and Lim to purchase 160,000 shares, 76,190 shares, 86,857 shares, and 66,667 shares, respectively, of our common stock under our 2006 Stock Incentive Plan. These performance stock options will vest only upon achievement of between 90% and 200% of the 2011 net revenue target as determined by our Compensation Committee. The amounts granted represent the maximum number of options that could vest, assuming the 200% target level is achieved. Assuming a portion or all of the performance options are deemed vested based upon achievement of the 2011 revenue target, one-third of the performance stock option will immediately vest, one-third will vest on the second anniversary of the Grant Date and the remaining one-third will vest on the third anniversary of the Grant Date. The exercise price of these options was $2.28, which equaled the closing price of our common stock as reported by the Nasdaq Capital Market on the Grant Date.

Cash bonus payments, if earned, will be paid once our auditors have completed their annual audit and our actual 2011 net revenues are known. In order to receive a bonus payment, the participant must be employed by us at the time bonuses are computed and distributed.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Except as provided below, the information required by this Item is incorporated by reference from the information under the captions entitled "Board of Directors," "Executive Officers and Directors" and "Section 16(a) Beneficial Ownership Reporting Compliance" in our definitive proxy statement to be filed with the SEC no later than 120 days after our most recent fiscal year end, which is December 31, 2010.

Code of Business Conduct and Ethics

We have adopted a code of business conduct and ethics for directors, officers (including our Chief Executive Officer and Chief Financial Officer) and employees, known as the CombiMatrix Corporation Code of Business Conduct and Ethics (the "Code of Ethics"). The Code of Ethics is available on our website at *http://www.combimatrix.com* in the corporate governance section under the "Investors" link. Shareholders may request a free copy of the Code of Ethics by sending an email request to investors@combimatrix.com. We intend to disclose future amendments to certain provisions of our Code of Ethics, or waivers of such provisions, applicable to our directors and officers (including our Chief Executive Officer and Chief Financial Officer), at the same location on our website identified above. The inclusion of our website address in this report does not include or incorporate by reference the information on, or accessible through, our web site into this report.

Item 11. EXECUTIVE COMPENSATION

The information required by this Item is incorporated by reference from the information under the caption entitled "Executive Compensation and Other Information" in our definitive proxy statement to be filed with the SEC no later than 120 days after our most recent fiscal year end, which is December 31, 2010.

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

The information required by this Item is incorporated by reference from the information under the caption entitled "Security Ownership of Certain Beneficial Owners and Management" in our definitive proxy statement to be filed with the SEC no later than 120 days after our most recent fiscal year end, which is December 31, 2010.

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

The information required by this Item is incorporated by reference from the information under the caption entitled "Certain Transactions" and "Board of Directors" in our definitive proxy statement to be filed with the SEC no later than 120 days after our most recent fiscal year end, which is December 31, 2010.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item is incorporated by reference from the information under the caption entitled "Principal Accountants" in our definitive proxy statement to be filed with the SEC no later than 120 days after our most recent fiscal year end, which is December 31, 2010.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) (1) Financial Statements—See "Index to Consolidated Financial Statements" appearing on page F-1.

(2) Financial Statement Schedules

Schedules have been omitted, as they are not required for smaller reporting companies, not applicable or the information is otherwise included.

(3) Exhibits—Refer to Item 15(b) below.

(b) Exhibits. The following exhibits are either filed herewith or incorporated herein by reference:

Exhibit Number	Description
3.1	Amended and Restated Certificate of Incorporation(1)
3.2	Certificate of Amendment to Amended and Restated Certificate of Incorporation(2)
3.3	Second Amended and Restated Bylaws(3)
10.1†	Separation Agreement and General Release of Claims with Amit Kumar, Ph.D., dated as of August 8, 2010(4)
10.2†	Restated Executive Change in Control Severance Plan(5)
10.3†	Offer and Employment Agreement with R. Judd Jessup, dated as of August 11, 2010(6)
10.4	Amendment No. 3 to Lease dated as of January 11, 2010(7)
10.5	Settlement Agreement with National Union Fire Insurance Co. of Pittsburgh, PA, dated as of January 27, 2010(8)
10.6†	2006 Stock Incentive Plan, as amended(9)
10.7†	Form of Stock Incentive Plan Agreement(10)
10.8†	2011 Executive Performance Bonus Plan(*)
10.9	Form of Indemnification Agreement(11)
10.10	Warrant (exercise price of $11.87 per share)(12)
10.11	Warrant (exercise price of $13.65 per share)(13)
10.12	Registration Rights Agreement(14)
10.13	Contract titled "Reagentless Detection on a Semiconductor Microarray for the Immunochemical and Genomic Identification of Biothreat Agents"(15)
10.14	Research and Development Contract with U.S. Air Force Research Laboratory for the Development and Use of a Semiconductor Microarray For Detecting Exposure to Environmental Hazards(16)
21.1	Subsidiaries of the Registrant(*)
23.1	Consent of Peterson Sullivan LLP(*)
31.1	Certification of Chief Executive Officer pursuant to section 302 of the Sarbanes-Oxley Act of 2002(*)

Exhibit Number	Description
31.2	Certification of Chief Financial Officer pursuant to section 302 of the Sarbanes-Oxley Act of 2002(*)
32.1	Certification of Chief Executive Officer pursuant to section 906 of the Sarbanes-Oxley Act of 2002(*)
32.2	Certification of Chief Financial Officer pursuant to section 906 of the Sarbanes-Oxley Act of 2002(*)

(*) Included herewith.

† Denotes management contract or compensatory plan or arrangement.

(1) Incorporated by reference to Exhibit 3.1 to the Company's Registration Statement on Form S-1 (SEC File No. 333-139679), filed with the SEC on December 26, 2006.

(2) Incorporated by reference to Exhibit 3.1A to the Company's Quarterly Report on Form 10-Q filed August 14, 2008.

(3) Incorporated by reference to Exhibit 3.2 to the Company's Annual Report on Form 10-K (File No. 001-33523) filed with the SEC on March 18, 2010.

(4) Incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-33523) filed with the SEC on August 16, 2010.

(5) Incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q (File No. 001-33523) filed with the SEC on August 16, 2010.

(6) Incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q (File No. 001-33523) filed with the SEC on August 16, 2010.

(7) Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-33523) filed with the SEC on January 15, 2010.

(8) Incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q (File No. 001-33523) filed with the SEC on May 17, 2010.

(9) Incorporated by reference to Exhibit 10.5 to the Company's Annual Report on Form 10-K (File No. 001-33523) filed with the SEC on March 27, 2009.

(10) Incorporated by reference to the Company's Registration Statement on Form S-1 (SEC File No. 333-139679), which became effective June 8, 2007.

(11) Incorporated by reference to Exhibit 10.8 to the Company's Registration Statement on Form S-1 (SEC File No. 333-139679), filed with the SEC on December 26, 2006.

(12) Incorporated by reference to Exhibit 99.3 to the Company's Current Report on Form 8-K (File No. 001-33523) filed with the SEC on July 11, 2008.

(13) Incorporated by reference to Exhibit 99.4 to the Company's Current Report on Form 8-K (File No. 001-33523) filed with the SEC on July 11, 2008.

(14) Incorporated by reference to Exhibit 99.5 to the Company's Current Report on Form 8-K (File No. 001-33523) filed with the SEC on July 11, 2008.

(15) Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-33523) filed with the SEC on July 14, 2008.

(16) Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-33523) filed with the SEC on September 14, 2009.

SIGNATURES

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

Dated: March 22, 2011

COMBIMATRIX CORPORATION

/s/ R. JUDD JESSUP

R. Judd Jessup
President and
Chief Executive Officer
(Authorized Signatory)

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

Signature	Title	Date
/s/ R. JUDD JESSUP R. Judd Jessup	President and Chief Executive Officer, Director (Principal Executive Officer)	March 22, 2011
/s/ SCOTT R. BURELL Scott R. Burell	Chief Financial Officer, Treasurer and Secretary (Principal Financial and Accounting Officer)	March 22, 2011
/s/ MARK MCGOWAN Mark McGowan	Chairman of the Board	March 22, 2011
/s/ JOHN H. ABELES, M.D. John H. Abeles, M.D.	Director	March 22, 2011
/s/ F. RIGDON CURRIE F. Rigdon Currie	Director	March 22, 2011
/s/ SCOTT GOTTLIEB, M.D. Scott Gottlieb, M.D.	Director	March 22, 2011
/s/ AMIT KUMAR, PH.D. Amit Kumar, Ph.D.	Director	March 22, 2011

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders
CombiMatrix Corporation
Irvine, California

We have audited the accompanying consolidated balance sheets of CombiMatrix Corporation and Subsidiaries ("the Company") as of December 31, 2010 and 2009, and the related consolidated statements of operations, shareholders' equity, and cash flows for the years then ended. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated 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 audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. The Company has determined that it is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall consolidated financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of CombiMatrix Corporation and Subsidiaries as of December 31, 2010 and 2009, and the results of their operations and their cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States.

The accompanying consolidated financial statements have been prepared assuming the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has a history of incurring net losses and net operating cash flow deficits. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans regarding these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ PETERSON SULLIVAN LLP

Seattle, Washington
March 22, 2011

COMBIMATRIX CORPORATION

CONSOLIDATED BALANCE SHEETS

As of December 31, 2010 and 2009

(In thousands, except share and per share information)

	December 31, 2010	December 31, 2009
ASSETS		
Current assets:		
Cash and cash equivalents	$ 6,556	$ 5,443
Accounts receivable, net of allowance for doubtful accounts of $139 and $190	1,447	1,045
Inventory	412	669
Prepaid expenses and other assets	309	236
Total current assets	8,724	7,393
Property and equipment, net	538	653
Investments in unconsolidated subsidiaries and other	127	296
Patents and licenses, net	198	3,840
Goodwill	—	16,918
Total assets	$ 9,587	$ 29,100
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable, accrued expenses and other	$ 1,168	$ 1,891
Current portion, capital lease obligations	71	52
Deferred revenues	—	255
Secured convertible debenture	—	7,608
Other liabilities	—	605
Total current liabilities	1,239	10,411
Capital lease obligations, net of current portion	132	170
Total liabilities	1,371	10,581
Commitments and contingencies		
Shareholders' equity:		
Preferred stock; $0.001 par value; 5,000,000 shares authorized; none issued and outstanding	—	—
Common stock; $0.001 par value; 25,000,000 shares authorized 7,620,398 and 7,571,886 shares issued and outstanding	8	8
Additional paid-in capital	58,569	55,758
Accumulated net losses	(50,361)	(37,247)
Total shareholders' equity	8,216	18,519
Total liabilities and shareholders' equity	$ 9,587	$ 29,100

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

COMBIMATRIX CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS

For the Years Ended December 31, 2010 and 2009

(In thousands, except share and per share information)

	For the Years Ended December 31,	
	2010	**2009**
Revenues:		
Services	$ 3,283	$ 2,335
Products	271	238
Total revenues	3,554	2,573
Operating expenses:		
Cost of services	1,931	1,354
Cost of products	253	144
Research and development expenses	2,033	2,789
Marketing, general and administrative expenses	7,667	6,536
Patent amortization and royalties	190	275
Equity in loss of investee	—	618
Goodwill impairment	16,918	—
Total operating expenses	28,992	11,716
Operating loss	(25,438)	(9,143)
Other income (expenses):		
Qualified Therapeutic Discovery Program income	489	—
Litigation settlement gain	19,385	—
Loss from early extinguishment of debt	(572)	—
Interest income	7	19
Interest expense	(361)	(2,110)
Derivatives gains (charges)	605	(163)
Total other income (expense)	19,553	(2,254)
Net loss from continuing operations	(5,885)	(11,397)
Loss from discontinued operations	(7,229)	(6,240)
Net loss	$ (13,114)	$ (17,637)
Basic and diluted net loss per share from continuing operations	$ (0.77)	$ (1.60)
Basic and diluted net loss per share from discontinued operations	(0.95)	(0.88)
Basic and diluted net loss per share	$ (1.72)	$ (2.48)
Basic and diluted weighted average common shares outstanding	7,612,477	7,131,371

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

COMBIMATRIX CORPORATION
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
For the Years Ended December 31, 2010 and 2009
(In thousands, except share information)

	Common Stock		Additional Paid-In Capital	Accumulated Net Losses	Total Shareholders' Equity
	Shares	Amount			
Balances, December 31, 2008	6,288,033	$ 6	$43,650	$(19,610)	$ 24,046
Stock option and warrant exercises	48,673	—	224	—	224
Issuance of common stock and warrants, net of issuance costs	1,100,000	2	7,415	—	7,417
Conversion of secured convertible debenture to common stock	13,333	—	109	—	109
Issuance of common stock warrants issued to consultants	—	—	168	—	168
Non-cash stock compensation	—	—	3,320	—	3,320
Common stock issued to service interest payments	121,847	—	872	—	872
Net loss	—	—	—	(17,637)	(17,637)
Balances, December 31, 2009	7,571,886	8	55,758	(37,247)	18,519
Debt service paid in common stock	33,822	—	215	—	215
Issuance of common stock for severance compensation	14,690	—	38	—	38
Mark-to-model warrant valuations	—	—	(24)	—	(24)
Non-cash stock compensation	—	—	2,582	—	2,582
Net loss	—	—	—	(13,114)	(13,114)
Balances, December 31, 2010	7,620,398	$ 8	$58,569	$(50,361)	$ 8,216

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

COMBIMATRIX CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS

For the Years Ended December 31, 2010 and 2009

(In thousands)

	For the Years Ended December 31,	
	2010	**2009**
Operating activities:		
Net loss	$(13,114)	$(17,637)
Adjustments to reconcile net loss to net cash flows from operating activities:		
Depreciation and amortization	578	1,503
Non-cash stock compensation	2,582	3,320
Derivative (gains) charges	(605)	163
Loss from early extinguishment of debt	572	—
Equity in loss of investee	—	618
Allowance for bad debt	185	(135)
Common stock issued as employee severance compensation	38	—
Warrants issued to consultants	—	168
Amortization of debt discount and issuance costs	211	1,234
Goodwill impairment	16,918	—
Patent and other asset write-downs	3,664	—
Changes in assets and liabilities:		
Accounts receivable	(587)	6
Inventory, prepaid expenses and other assets	184	36
Accounts payable, accrued expenses and other	(685)	446
Deferred revenues	(255)	(288)
Net cash flows from operating activities	9,686	(10,566)
Investing activities:		
Purchase of property and equipment	(105)	(104)
Sale of available-for-sale investments	—	1,526
Net cash flows from investing activities	(105)	1,422
Financing activities:		
Repayment of secured convertible debenture	(8,400)	—
Repayment of line of credit	—	(820)
Net proceeds from issuance of common stock, net	—	7,846
Repayment of capital lease obligations	(68)	(18)
Net cash flows from financing activities	(8,468)	7,008
Increase (decrease) in cash and cash equivalents	1,113	(2,136)
Cash and cash equivalents, beginning	5,443	7,579
Cash and cash equivalents, ending	$ 6,556	$ 5,443
Non-cash investing and financing activities:		
Conversion of secured convertible debenture to common stock	$ —	$ 100
Property and equipment purchased on capital leases	$ 49	$ 179
Accrued interest paid in common stock	$ 215	$ 845

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

COMBIMATRIX CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. DESCRIPTION OF BUSINESS

CombiMatrix Corporation (the "Company," "we," "us" and "our") was originally incorporated in October 1995 as a California corporation and later reincorporated as a Delaware corporation in September 2000. The original focus of the Company was in developing proprietary DNA array-based tools and instruments for the genetic research community, under the brand formerly known as "CustomArray." In December 2002, we merged with and became a wholly owned subsidiary of Acacia Research Corporation ("Acacia"). In December 2006, we filed a registration statement with the U.S. Securities and Exchange Commission ("SEC") in order to register our common stock as part of a plan to split-off from Acacia (the "Split-Off"). On August 15, 2007 (the "Split-Off Date"), the Split-Off was effected and our common stock became publicly traded on the Nasdaq Stock Market (symbol: "CBMX"). As of the Split-Off Date, we ceased to be a subsidiary of, or affiliated with, Acacia.

Description of the Company

On April 19, 2010, we announced a strategic and operational restructuring plan (the "Restructuring Plan") intended to significantly reduce operating costs, increase the focus on the Company's diagnostic services business and transition senior management. As part of the Restructuring Plan, we closed our CustomArray business and facilities located in Mukilteo, Washington and relocated our corporate headquarters to Irvine, California. Since the restructuring, our strategic focus is on commercializing our diagnostics services business by increasing the volume of our existing tests, expanding the number of tests offered by our laboratory, increasing the number of customers and partners, and improving reimbursement for our testing. We also initiated a search for a new President and Chief Executive Officer, which was completed on August 11, 2010 with the hiring of R. Judd Jessup. Concurrent with Mr. Jessup's appointment, Mark McGowan, our Chairman of the Board of Directors, discontinued serving as interim President and CEO, a role which he had assumed as a result of Dr. Amit Kumar's resignation from that role on June 30, 2010. Dr. Kumar was our President and CEO from September 2001 through June 30, 2010.

We are a molecular diagnostics company that operates primarily in the field of genetic analysis and molecular diagnostics through our wholly owned subsidiary, CombiMatrix Diagnostics ("CMDX"), located in Irvine, California. CMDX operates as a diagnostics reference laboratory that provides DNA-based clinical diagnostic testing services to physicians, hospitals and other laboratories in two primary areas: (i) prenatal and postnatal developmental disorders; and (ii) oncology. CMDX provides its services through the use of array-comparative genomic hybridization ("aCGH"), which enables the analysis of genetic anomalies. Our mission is to empower physicians to positively impact patient care through the delivery of innovative DNA-based clinical services.

We also own a one-third minority interest in Leuchemix, Inc. ("Leuchemix"), a private drug development company focused on developing a series of compounds to address a number of oncology-related diseases.

Liquidity and Risks

We have a history of incurring net losses and net operating cash flow deficits. We are also deploying new technologies and continue to develop new and improve existing commercial diagnostic testing services and related products. At December 31, 2010, we had cash and cash equivalents of $6.6 million. As a result, we anticipate that our cash and cash equivalent balances, anticipated cash flows from operations and anticipated operating cash savings from our Restructuring Plan will be sufficient to meet our cash requirements into the fourth quarter of 2011.

In order for us to continue as a going concern beyond this point and ultimately to achieve profitability, we may be required to obtain capital from external sources, increase revenues and reduce operating costs. However, there can be no assurances that our operations will become profitable or that external sources of financing, including the issuance of debt and/or equity securities, will be available at times and at terms acceptable to us, or at all. The issuance of additional equity or convertible debt securities will also cause dilution to our shareholders. If external financing sources are not available or are inadequate to fund our operations, we will be required to reduce operating costs, which could jeopardize our future strategic initiatives and business plans. For example, reduction in operating costs could jeopardize our ability to launch, market and sell new diagnostics products and services necessary to grow and sustain our operations to eventually achieve profitability. The anticipation that we will be required to obtain additional financing in the foreseeable future raises substantial doubt about our ability to continue as a going concern beyond the fourth quarter of 2011. In addition to seeking additional capital from outside sources, our plans in regard to these matters include restructuring our business, which we executed in 2010, as well as reducing other costs that are not considered strategically vital to our business.

Our business operations are also subject to certain risks and uncertainties, including:

- market acceptance of products and services;
- technological advances that may make our products and services obsolete or less competitive;
- increases in operating costs, including costs for supplies, personnel and equipment;
- the availability and cost of capital;
- governmental regulation that may restrict our business.

Our services are concentrated in a highly competitive market that is characterized by rapid technological advances, frequent changes in customer requirements and evolving regulatory requirements and industry standards. Failure to anticipate or respond adequately to technological advances, changes in customer requirements, changes in regulatory requirements or industry standards, or any significant delays in the development or introduction of planned products or services, could have a material adverse effect on our business and operating results. The accompanying consolidated financial statements have been prepared assuming that the Company continues as a going concern. The financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the matters discussed herein.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

References to Authoritative Accounting Literature. In June 2009, the Financial Accounting Standards Board ("FASB") issued the Accounting Standards Codification ("ASC") as the single source of authoritative U.S. generally accepted accounting principles ("GAAP") recognized by the FASB to be applied by non-governmental entities in preparation of financial statements in conformity with U.S. GAAP, except for additional authoritative rules and interpretative releases issued by the SEC. While the adoption of the ASC changes how we reference accounting standards, the adoption did not have an impact on our consolidated financial statements.

Accounting Principles and Fiscal Year End. The consolidated financial statements and accompanying notes are prepared on the accrual basis of accounting in accordance with U.S. GAAP. We have a December 31 year-end.

Use of Estimates. The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

Basis of Presentation and Principles of Consolidation. The accompanying consolidated financial statements include the accounts of the Company and our wholly owned and majority-owned subsidiaries. Investments for which we possess the power to direct or cause the direction of the management and policies, either through majority ownership or other means, are accounted for under the consolidation method. Material intercompany transactions and balances have been eliminated in consolidation. Investments in companies in which we maintain an ownership interest of 20% to 50% or exercise significant influence over operating and financial policies are accounted for under the equity method. The cost method is used where we maintain ownership interests of less than 20% and do not exercise significant influence over the investee.

Discontinued Operations. We reclassify, from continuing operations to discontinued operations, for all periods presented, the results of operations for any component either held for sale or disposed of. We define a component as being distinguishable from the rest of our Company because it has its own operations and cash flows. A component may be a reportable segment, an operating segment, a reporting unit, a subsidiary, or an asset group. Such reclassifications had no effect on our net loss or shareholders' equity.

Revenue Recognition. We recognize revenue when (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred or services have been performed, (iii) amounts are fixed or determinable and (iv) collectability of amounts is reasonably assured.

Service revenues from providing diagnostic tests are recognized when the testing process is complete and test results are reported to the ordering physician or clinic. These diagnostic services are billed to various payors, including commercial insurance companies, healthcare institutions, individuals and government payors including Medicare and Medicaid. We report revenues from contracted payors based on a contractual rate, or in the case of Medicare and Medicaid, published fee schedules for our tests. We report revenues from non-contracted payors based on the amount expected to be collected. The difference between the amount billed and the amount expected to be collected from non-contracted payors is recorded as a contractual allowance to arrive at net recognized revenues. The expected revenues from non-contracted payors are based on the historical collection experience of each payor or payor group, as appropriate. In each reporting period, we review our historical collection experience for non-contracted payors and adjust our expected revenues for current and subsequent periods accordingly. Because a substantial portion of our revenues is from non-contracted third-party payors, it is likely that we will be required to make positive or negative adjustments to accounting estimates with respect to contractual allowances in the future, which may positively or adversely affect our results of operations.

Revenues from the sale of aCGH slides, including shipping and handling fees but excluding statutory taxes collected from customers, as applicable, are recognized when delivery occurs. There is no written or implied right to return or exchange the products.

Revenues from multiple element arrangements are based on the relative selling price method, whereby we allocate consideration received to all deliverables of an arrangement at the inception of the arrangement based on the relative selling prices of each element. In order to determine the selling price of a deliverable, we apply the following hierarchy: 1) vendor-specific objective evidence ("VSOE"); 2) third-

party evidence if VSOE is not available; and 3) our best estimate of selling price for the deliverable if neither VSOE nor third-party evidence is available. Several factors are considered when determining the estimated selling price of a deliverable, including, but not limited to, the cost to produce the deliverable, the expected margin on that deliverable, our ongoing pricing strategy and policies and the value-added components of differentiated deliverables, if determinable. In order for a deliverable to be accounted for as a separate unit of accounting, both of the following criteria must be met: 1) the delivered item or items have value to the customer on a standalone basis; and 2) when a general right of return exists, the delivery or performance of an undelivered item is considered probable and under our control. Our revenue arrangements do not have a general right of return. When a deliverable does not meet the criteria to be considered a separate unit of accounting, we group that deliverable with other deliverables that, when combined, meet the criteria, and the appropriate allocation of arrangement consideration and revenue recognition is determined.

Deferred revenues arise from payments received in advance of the culmination of the earnings process and will be recognized as revenue when the applicable recognition criteria are met.

Qualified Therapeutic Discovery Program Income. We were awarded $489,000 under the Internal Revenue Service's Section 48D for Qualifying Therapeutic Discovery Projects. Earlier in 2010, we submitted two grant proposals under this program and were notified that our applications were accepted and the related funds were paid, during the fourth quarter of 2010. We have not applied for, and do not expect to receive, any additional funding under this program. Since this program is non-recurring in nature, we elected to classify the payments as other income for the 2010 period presented.

Cash and Cash Equivalents. We consider all highly liquid, short-term investments with original maturities of three months or less when purchased to be cash equivalents.

Fair Value Measurements. We measure fair value as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that is determined based on assumptions that market participants would use in pricing an asset or liability. We utilize a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

- Level 1: Observable market inputs such as quoted prices in active markets;
- Level 2: Observable market inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and
- Level 3: Unobservable inputs where there is little or no market data, which require the reporting entity to develop its own assumptions.

Concentration of Credit Risks. Cash equivalents are invested in deposits with certain financial institutions and may, at times, exceed federally insured limits. We have not experienced any significant losses on our deposits of cash and cash equivalents.

Substantially all of the components and raw materials used in the manufacture of our products, including array slides and reagents, are currently provided to us from a limited number of sources or in some cases from a single source. Although we believe that alternative sources for those components and raw materials are available, any supply interruption in a sole-sourced component or raw material might result in up to a several-month production delay and materially harm our ability to manufacture products until a new source of supply, if any, could be located and qualified.

Accounts Receivable and Allowance for Doubtful Accounts. Accounts receivable are stated at principal amounts and are primarily comprised of amounts contractually due from customers for products and services. An allowance for doubtful accounts is recorded for estimated uncollectible amounts due from various payor groups such as commercial insurance companies, healthcare institutions, government payors and individuals. The process for estimating the allowance for doubtful accounts involves significant assumptions and judgments. Specifically, the allowance for doubtful accounts is adjusted periodically and is principally based upon specific identification of past due or disputed accounts. We also review the age of receivables by payor class to assess our allowance at each period end. The payment realization cycle for certain governmental and commercial insurance payors can be lengthy, involving denial, appeal and adjudication processes, and is subject to periodic adjustments that may be significant. Accounts receivable are periodically written off when identified as uncollectible and deducted from the allowance for doubtful accounts after appropriate collection efforts have been exhausted. Additions to the allowance for doubtful accounts are charged to bad debt expense as a component of marketing, general and administrative expenses in the consolidated statements of operations. Collection of governmental, private health insurer, and client receivables are generally a function of providing complete and correct billing information to the insurers and clients within the filing deadlines required by each payor. Collection of receivables due from patients and clients is generally subject to increased credit risk due to credit worthiness or inability to pay.

Inventory. Inventory, which consists primarily of raw materials to be used in the production of our array products, is stated at the lower of cost or market using the first-in, first-out method.

Property and Equipment. Property and equipment is recorded at cost. Additions and improvements that increase the value or extend the life of an asset are capitalized. Maintenance and repairs are expensed as incurred. Disposals are removed at cost less accumulated depreciation or amortization and any gain or loss from disposition is reflected in the consolidated statement of operations in the period of disposition. Depreciation is computed on a straight-line basis over the following estimated useful lives of the assets:

Laboratory equipment	3 to 5 years
Furniture and fixtures	5 to 7 years
Computer hardware and software	3 years
Leasehold improvements	Lesser of lease term or useful life of improvement

Certain leasehold improvements, furniture and equipment held under capital leases are classified as property and equipment and are amortized over their useful lives using the straight-line method. Lease amortization is included in depreciation expense.

Impairment of Long-Lived Assets and Goodwill. Long-lived assets and intangible assets are reviewed for potential impairment when events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. In the event the sum of the expected undiscounted future cash flows resulting from the use of the asset is less than the carrying amount of the asset, an impairment loss equal to the excess of the asset's carrying value over its fair value is recorded. If an asset is determined to be impaired, the loss is measured based on quoted market prices in active markets, if available. If quoted market prices are not available, the estimate of fair value is based on various valuation techniques, including a discounted value of estimated future cash flows. Due to the Restructuring Plan, management determined that our patent intangible assets were impaired—see Note 3 below.

Goodwill is evaluated annually for impairment at the reporting unit level, or earlier if an event occurs or circumstances change that would more likely than not indicate that the fair value of a reporting unit is below its carrying amount. A reporting unit can be an operating segment or a business if discrete financial

information is prepared and reviewed by management. Under the impairment test, if a reporting unit's carrying amount exceeds its estimated fair value, goodwill impairment is recognized to the extent that the reporting unit's carrying amount of goodwill exceeds the implied fair value of the goodwill. We performed our annual impairment test during the fourth quarter of 2009 and determined that goodwill was not impaired. During the second quarter of 2010, the Company's fair value (as determined by the trading price of our common stock on the Nasdaq Global Market) fell below our carrying value, triggering an impairment analysis—see Note 8 below.

Derivatives Embedded in Certain Debt Securities. We evaluate financial instruments for freestanding or embedded derivatives. Derivative instruments that have been separated from the host contract and do not qualify for hedge accounting are recorded at fair value with changes in value recognized as other income (expense) in the consolidated statements of operations in the period of change.

Stock-Based Compensation. The compensation cost for all stock-based awards is measured at the grant date, based on the fair value of the award, and is recognized as an expense, on a straight-line basis, over the employee's requisite service period (generally the vesting period of the equity award) which is generally three years. The fair value of each option award is estimated on the date of grant using a Black-Scholes option valuation model. Stock-based compensation expense is recognized only for those awards that are expected to vest using an estimated forfeiture rate. We estimate pre-vesting option forfeitures at the time of grant and reflect the impact of estimated pre-vesting option forfeitures in compensation expense recognized.

The assumptions used to estimate the fair value of awards granted for the periods presented are noted in the table below. Expected volatility is based on the separate historical volatility of the market prices of our common stock. The risk-free rate for the expected term of the option is based on the U.S. Treasury yield curve in effect at the time of grant.

	For the Years Ended December 31,	
	2010	**2009**
Risk free interest rate	2.3%	3.1%
Volatility	64%	70%
Expected term	5.8 years	5.8 years
Expected dividends	0%	0%

Stock-based compensation expense for 2010 and 2009 attributable to our functional expense categories were as follows (in thousands):

	For the Years Ended December 31,	
	2010	**2009**
Cost of products and services	$ 57	$ 59
Research and development	166	181
Marketing, general and administrative	1,883	1,945
Discontinued operations	476	1,135
Total non-cash stock compensation	$2,582	$3,320

Research and Development Expenses. Research and development expenses consist of costs incurred for direct and overhead-related research expenses and are expensed as incurred. Costs to acquire technologies which are utilized in research and development and which have no alternative future use are expensed when incurred. Software developed for use in our products is expensed as incurred until both (i) technological feasibility for the software has been established and (ii) all research and development activities for the other components of the system have been completed. We believe these criteria are met after we have received evaluations from third-party test sites and completed any resulting modifications to the products. Expenditures to date have been classified as research and development expense.

Advertising. Costs associated with marketing and advertising of our products and services are expensed as incurred. For the years ended December 31, 2010 and 2009, we incurred marketing and advertising expenses of $337,000 and $284,000, respectively.

Income Taxes. We recognize income taxes on an accrual basis based on tax positions taken or expected to be taken in our tax returns. A tax position is defined as a position in a previously filed tax return or a position expected to be taken in a future tax filing that is reflected in measuring current or deferred income tax assets and liabilities. Tax positions are recognized only when it is more likely than not (i.e., likelihood of greater than 50%), based on technical merits, that the position would be sustained upon examination by taxing authorities. Tax positions that meet the more likely than not threshold are measured using a probability-weighted approach as the largest amount of tax benefit that is greater than 50% likely of being realized upon settlement. Income taxes are accounted for using an asset and liability approach that requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in our financial statements or tax returns. A valuation allowance is established to reduce deferred tax assets if all, or some portion, of such assets will more than likely not be realized. Should they occur, our policy is to classify interest and penalties related to tax positions as income tax expense. Since our inception, no such interest or penalties have been incurred, however.

Segments. We have determined that we operate in one segment for financial reporting purposes.

Net Loss Per Share. Basic and diluted net loss per share has been computed by dividing the net loss by the weighted average number of common shares issued and outstanding during the periods presented. Options and warrants to purchase CombiMatrix stock are anti-dilutive and therefore are not included in the determination of the diluted net loss per share. The following table presents a reconciliation of basic

and diluted net loss per share from continuing operations for all periods presented (in thousands, except share and per share data):

	For the Years Ended December 31,	
	2010	2009
Numerator:		
Loss from continuing operations applicable to common shareholders	$ (5,885)	$ (11,397)
Denominator:		
Weighted-average common shares outstanding	7,612,477	7,131,371
Basic and diluted loss per share	$ (0.77)	$ (1.60)
Common stock options	1,677,896	2,036,663
Common stock warrants	3,683,998	3,943,646
Convertible debenture	—	1,120,000
Excluded dilutive securities	5,361,894	7,100,309

Reclassifications. Certain reclassifications have been made to prior period financial statements and footnotes in order to conform to the current period's presentation.

Recent and Adopted Accounting Pronouncements. In March 2010, the FASB issued new authoritative guidance regarding revenue recognition to define a milestone and clarify that the milestone method of revenue recognition is a valid application of the proportional performance model when applied to research or development arrangements. Accordingly, a company can make an accounting policy election to recognize a payment that is contingent upon the achievement of a substantive milestone in its entirety in the period in which the milestone is achieved. This guidance began phasing in during the third quarter of 2010. The implementation of this guidance did not have a material impact on our consolidated financial position, results of operations or cash flows.

In January 2010, the FASB issued new authoritative guidance regarding the disclosure of fair value measurements, which clarifies certain existing disclosure requirements as well as requiring new disclosures related to significant transfers between each fair value level as well as requiring additional information about Level 3 activity. This guidance began phasing in during the first fiscal period after December 15, 2009. The implementation of this guidance did not have a material impact on our consolidated financial position, results of operations or cash flows.

In October 2009, the FASB issued new authoritative guidance to require companies to allocate revenue in multiple-element arrangements based on an element's estimated selling price if vendor-specific or other third-party evidence of value is not available. The new guidance is effective for revenue transactions entered into during fiscal years beginning on or after June 15, 2010, with earlier application permitted. The early adoption of this guidance did not have a material impact on our consolidated financial position, results of operations or cash flows.

3. RESTRUCTURING

On April 19, 2010, we announced a Restructuring Plan intended to focus our Company on our diagnostic services business while shutting down our CustomArray business. Charges incurred related to the Restructuring Plan are as follows (in thousands):

	Year Ended December 31, 2010
Severance payments and benefits	$1,113
Inventory write-downs	386
Accrued lease costs	81
Property, plant and equipment write-downs	79
Facilities clean-up and relocation	104
Contingencies	57
Subtotal	1,820
Sale of surplus property and equipment	(468)
	$1,352

Of the $1.8 million in restructuring charges listed above (before sale of surplus property and equipment), $465,000 were non-cash write-downs, $1.2 million were paid out in cash as of December 31, 2010, and $109,000 were accrued as short-term payables and are expected to be paid out in subsequent periods. Net of proceeds received from the sales of surplus property, equipment and inventory, we recognized a loss from restructuring for the year ended December 31, 2010 of $1.4 million, which is included as a component of loss from discontinued operations in the accompanying consolidated statements of operations. We have no continuing involvement in the CustomArray business other than completing and / or transferring two U.S. Government research projects that were ongoing at the time the Restructuring Plan was executed. We anticipate completion / transferring of these projects to occur during the second quarter of 2011 and do not expect cash flows from these activities to be significant.

As a result of the Restructuring Plan, management performed an impairment analysis of its intangible patent assets and determined that these assets were fully impaired. As a result, these assets were written down by $3.4 million during the second quarter of 2010. The write-down is included as a component of loss from discontinued operations in the accompanying consolidated statements of operations for the year ended December 31, 2010.

The following table summarizes results of our CustomArray business classified as discontinued operations in the accompanying consolidated statements of operations for the years ended December 31, 2010 and 2009 (in thousands):

	For the Years Ended December 31,	
	2010	2009
Revenues	$ 1,579	$ 2,322
Operating expenses	4,022	8,562
Impairment of patents	3,434	—
Restructuring and other charges, net of surplus	1,352	—
Loss from discontinued operations	$(7,229)	$(6,240)

4. FAIR VALUE MEASUREMENTS

The following table summarizes, for each major category of financial assets or liabilities measured on a recurring basis, the respective fair value at December 31, 2010 and 2009, and the classification by level of input within the fair value hierarchy defined above (in thousands):

		Fair Value Measurements at		
December 31, 2010	**Total**	**Level 1**	**Level 2**	**Level 3**
Assets:				
Cash equivalents	$5,332	$5,332	$—	$ —

		Fair Value Measurements at		
December 31, 2009	**Total**	**Level 1**	**Level 2**	**Level 3**
Assets:				
Cash equivalents	$4,769	$4,769	$—	$ —
Liabilities:				
Embedded derivatives(1)	$ (605)	$ —	$—	$(605)

The following table is a reconciliation of financial assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the years ended December 31, 2010 and 2009 (in thousands):

	Available-For-Sale Investments	Embedded Derivatives(1)
Balances, December 31, 2008	$ 1,526	$(469)
Redemption of auction rate securities	(1,526)	—
Conversions to common stock	—	27
Derivatives charges	—	(163)
Balances, December 31, 2009	—	(605)
Realized gains	—	605
Balances, December 31, 2010	$ —	$ —

(1) Included in "other liabilities" in the accompanying December 31, 2009 consolidated balance sheet.

5. PROPERTY AND EQUIPMENT

Property and equipment consists of the following (in thousands):

	December 31,	
	2010	2009
Laboratory equipment	$ 1,267	$ 3,669
Furniture and fixtures	44	165
Computer hardware and software	166	710
Leasehold improvements	234	1,060
	1,711	5,604
Less—accumulated depreciation and amortization	(1,173)	(4,951)
	$ 538	$ 653

Depreciation and amortization expense was $312,000 and $245,000 for the years ended December 31, 2010 and 2009, respectfully.

6. BALANCE SHEET COMPONENTS

Accounts payable, accrued expenses and other consist of the following (in thousands):

	December 31,	
	2010	2009
Accounts payable	$ 406	$ 731
Payroll and other employee benefits	338	389
Accrued vacation	232	431
Accrued interest	—	212
Deferred rent	107	57
Other accrued expenses	85	71
	$1,168	$1,891

7. INVESTMENTS

In October 2004 (the "Investment Date"), we entered into an agreement to acquire up to a one-third ownership interest in Leuchemix, a private drug development firm, which is developing several compounds for the treatment of leukemia and other cancers. In accordance with the terms of the purchase agreement, we purchased 3.1 million shares of Series A Preferred Stock of Leuchemix for a total purchase price of $4.0 million. The ownership interest was acquired and paid for quarterly, beginning with the fourth quarter of 2004 and continuing through the fourth quarter of 2006. One of our board members is also a director of Leuchemix. As of December 31, 2006, we had invested a combined $4.0 million, representing a 33%, voting interest in the total outstanding equity securities of Leuchemix. This investment is being accounted for under the equity method.

Our interest in the equity in loss of Leuchemix was zero and $618,000 for the years ended December 31, 2010 and 2009, respectively. Summary financial information for Leuchemix was not significant as of December 31, 2010 or 2009.

8. GOODWILL IMPAIRMENT

The decline in our market capitalization during the second quarter of 2010 (as indicated by the trading price of our common stock on the Nasdaq Stock Market) was considered by management to be a potential goodwill impairment triggering event. As a result, we performed a business valuation using a market-based approach and determined that all of our $16.9 million in goodwill was impaired. The related charge was recognized as "goodwill impairment" in our consolidated statements of operations for the year ended December 31, 2010. The change in the carrying amount of goodwill and impairment losses for the year ended December 31, 2010 is as follows (in thousands):

	Goodwill	Impairment Losses	Net
Balance, December 31, 2009	$16,918	$ —	$ 16,918
Impairment loss	—	(16,918)	(16,918)
Balance, December 31, 2010	$16,918	$(16,918)	$ —

9. INCOME TAXES

The tax effects of temporary differences and carryforwards that give rise to significant portions of deferred assets and liabilities consist of the following (in thousands):

	December 31,	
	2010	2009
Deferred tax assets:		
Depreciation and amortization	$ —	$ 392
Deferred settlement costs	2,011	—
Deferred revenues	—	79
Stock compensation	1,578	1,084
Accrued liabilities and other	414	683
Net operating loss carryforwards and credits	53,476	57,600
Total deferred tax assets	57,479	59,838
Less: valuation allowance	(57,463)	(58,570)
Deferred tax assets, net of valuation allowance	16	1,268
Deferred tax liabilities:		
Depreciation and amortization	(16)	—
Intangibles		(1,268)
Net deferred tax liability	$ —	$ —

A reconciliation of the federal statutory income tax rate and the effective income tax rate is as follows:

	December 31,	
	2010	2009
Statutory federal tax rate	(34%)	(34%)
Goodwill impairment	44%	—
Research and development tax credits	(2%)	(1%)
Valuation allowance	(8%)	31%
Non deductible permanent items and other	0%	4%
	0%	0%

At December 31, 2010 and 2009, we had deferred tax assets totaling approximately $57.5 million and $59.8 million, respectively. These assets are offset by valuation allowances due to our determination that the criteria for asset recognition have not been met, as well as by deferred tax liabilities. At December 31, 2010, we had federal net operating loss carryforwards of approximately $137.7 million, which will begin to expire in 2010 through 2030. In addition, we have tax credit carryforwards of approximately $5.1 million. Utilization of net operating loss carryforwards and tax credit carryforwards are subject to the "change of ownership" provisions under Section 382 of the Internal Revenue Code. The amount of such limitations has not been determined. Based on a tax allocation agreement executed between us and Acacia, it is expected that all tax benefits, carryforwards and balances attributable to CombiMatrix Corporation prior to the Split-Off Date will remain with the Company subsequent to the Split-Off Date.

Prior to the Split-Off Date, our annual income tax returns were included with Acacia's consolidated tax return filings. Had we filed separate tax returns, the benefit for income taxes recognized by us would

not have differed significantly from the amounts reported in our consolidated statements of operations for all years presented. Also, given that our net operating losses have yet to be utilized, all previous tax years remain open to examination by Federal authorities and other jurisdictions in which we operate.

10. SECURED CONVERTIBLE DEBENTURE

On July 10, 2008 (the "Closing Date"), we issued to YA Global Investments, L.P. ("YA"): (i) a secured convertible debenture (the "Debenture") with an aggregate principal amount of $10 million, which was convertible into shares of our common stock at a fixed conversion price of $11.87 per share (and was reduced during 2009 to $7.50 per share); and (ii) warrants (the "YA Warrants") to purchase up to an aggregate of 336,984 shares of our common stock. The Debenture was originally due on the earlier of July 10, 2010 (the "Term") or within four months after receipt of payment of judgment or settlement proceeds from National Union Fire Insurance Company of Pittsburg, PA ("National Union") in accordance with a $35.7 million judgment (the "Judgment") issued by the U.S. District Court for the Central District of California (the "District Court"). In February 2010, we received $25 million in settlement proceeds from National Union, $8.6 million of which was used to fully retire the remaining principal balance of the Debenture, plus accrued interest, on March 2, 2010 (the "Retirement Date").

The Debenture bore interest at an annual rate of 10%, with interest payments due quarterly in either cash or our common stock. As a result of a registered direct offering of our common stock that occurred in May 2009, the conversion price of the Debenture was reduced from $11.87 per share to $7.50 per share pursuant to anti-dilution provisions of the Debenture. The YA Warrants, which remain outstanding, have a five-year term and allow YA to purchase: (i) 168,492 shares of common stock at an exercise price of $11.87; and (ii) 168,492 shares of common stock at an exercise price of $13.65. As a result of separating the YA Warrants and embedded derivative features of the Debenture, an aggregate contra-liability totaling $2.9 million was recognized as of the Closing Date and was netted against the Debenture as a debt discount, which was being accreted to the face amount due YA over the Term using the effective interest method, with the corresponding charges recorded as interest expense. For the years ended December 31, 2010 and 2009, interest and amortization charges were $343,000 and $2.1 million, respectively. As of the Retirement Date, the remaining unamortized debt discount of $572,000 was written off as a non-operating loss from early extinguishment of debt in the December 31, 2010 consolidated statement of operations.

Since the Closing Date, YA had converted $1.6 million of the Debenture into 170,074 shares of common stock, leaving an outstanding principal balance plus accrued interest due of $8.6 million prior to being retired as of the Retirement Date. The embedded derivative liabilities were marked to fair value of zero as of the Retirement Date and $605,000 as of December 31, 2009, resulting in net non-operating derivative gains (charges) of $605,000 and $(163,000) for the years ended December 31, 2010 and 2009, respectively.

11. COMMITMENTS AND CONTINGENCIES

Leases

We have entered into a non-cancelable operating lease for approximately 12,300 square feet of office and laboratory facilities in Irvine, California, with a lease term through January 2013.

At December 31, 2010, we had three capital leases for laboratory equipment with original purchase amounts totaling $286,000 and with useful lives of five years. As of December 31, 2010, the remaining lease obligations (including interest charges) were $228,000 with minimum future lease payments shown below. Interest rates on the capital lease obligations ranged from 7.6% to 8.4%. The fair value of the capital lease obligations was not significantly different from their carrying amounts as of December 31, 2010.

Future minimum lease payments for all of our facilities and leased equipment are as follows (in thousands):

	Operating Leases	Capital Leases	Total
2011	$189	$ 85	$274
2012	196	85	281
2013 and thereafter	16	58	74
Total minimum lease payments	$401	228	$629
Less—imputed interest		(25)	
Present value of capital lease obligations		203	
Less—current portion		(71)	
Capital lease obligations, net of current portion		$132	

Rent expense for the years ended December 31, 2010 and 2009 was $273,000 and $323,000, respectively.

Human Resources

We provide certain severance benefits such that if an executive of CombiMatrix Corporation who is a vice president or higher is terminated for other than cause, death or disability, the executive will receive payments equal to three months' base salary plus medical and dental benefits.

In addition, we have implemented an Executive Change of Control Severance Plan, as amended (the "Severance Plan") that affects certain of our senior management-level employees of CombiMatrix Corporation. Pursuant to the Severance Plan, if a participating employee is involuntarily terminated (other than for death, disability or for cause) or resigns for "good reason" (as defined in the Severance Plan) during the two-year period following a "change of control" (as defined in the Severance Plan) of the Company, then, subject to execution of a release of claims against the Company, the employee will be entitled to receive: (i) one-half times annual base salary; (ii) immediate vesting of outstanding compensatory equity awards; and (iii) payment of COBRA premiums for the participating employee and eligible dependants for a pre-determined period of time. Payment of benefits under the Severance Plan will be limited by provisions contained in Section 409A of the U.S. Internal Revenue Code. The Severance Plan is administered by a plan administrator, which initially is the Compensation Committee of the Board of Directors. In order to participate in the Severance Plan, an eligible employee must waive any prior retention or severance agreements.

Litigation

On September 30, 2002, we entered into a settlement agreement with Nanogen, Inc. ("Nanogen") to settle all pending litigation between the parties. Pursuant to the terms of the settlement agreement, we agreed to make quarterly payments to Nanogen equal to 12.5% of total sales of products developed by us and our affiliates based on the patents that had been in dispute in the litigation, up to an annual maximum amount of $1.5 million. The minimum quarterly payments under the settlement agreement are $25,000 per quarter until the patents expire in 2018. Royalty expenses recognized under the agreement were $100,000 in each of the years ended December 31, 2010 and 2009, and are included in patent amortization and royalties in the accompanying consolidated statements of operations.

In April 2005, Acacia and CombiMatrix filed a complaint against our insurance carrier, National Union (collectively, the "Parties"), seeking reimbursement of litigation and settlement costs for a prior lawsuit pursuant to our directors and officers insurance policy with National Union. A trial was held and concluded during the fourth quarter of 2007. In March 2008, the District Court issued its Judgment in favor of Acacia and us, and awarded approximately $32.1 million in monetary damages to be paid by National Union. In May 2008, the District Court awarded us an additional $3.6 million in attorneys' fees and litigation costs, thereby increasing the overall award to $35.7 million. National Union appealed the Judgment to the U.S. Ninth Circuit Court of Appeals, which we vigorously opposed. On January 27, 2010, the Parties entered into a settlement agreement whereby National Union agreed to pay $25 million to us in order to settle the dispute. These proceeds, net of attorneys' fees and costs of $5.6 million, were paid to us on February 3, 2010 and a dismissal of the action was entered by the District Court on February 11, 2010. As a result, we recognized a litigation settlement gain of $19.4 million in the accompanying December 31, 2010 consolidated statement of operations.

From time to time, we are subject to other claims and legal actions that arise in the ordinary course of business. We believe that the ultimate liability with respect to these claims and legal actions, if any, will not have a material effect on our financial position, results of operations or cash flows. Based on a distribution agreement executed between us and Acacia, it is expected that such claims and legal actions attributable to CombiMatrix Corporation prior to the Split-Off Date will remain with us subsequent to the Split-Off Date. As of the date of this report and prior to such date, we are not aware of the existence of any such claims or legal actions.

12. RETIREMENT SAVINGS PLAN

We have an employee savings and retirement plan under section 401(k) of the Internal Revenue Code (the "Retirement Plan"). The Retirement Plan is a defined contribution plan in which eligible employees may elect to have a percentage of their compensation contributed to the Retirement Plan, subject to certain guidelines issued by the Internal Revenue Service. We may contribute to the Retirement Plan at the discretion of our board of directors. There were no contributions made by the Company during any of the years presented.

13. SHAREHOLDERS' EQUITY

Common and Preferred Stock

The holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the shareholders, including the election of directors, and do not have cumulative voting rights. Accordingly, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they so choose. The board of directors has the authority, without further action by the shareholders, to issue from time to time preferred stock in one or more series and to fix the number of shares, designations, preferences, powers, and relative, participating, optional or other special rights and the qualifications or restrictions of our preferred stock. The preferences, powers, rights and restrictions of different series of preferred stock may differ with respect to dividend rates, amounts payable on liquidation, voting rights, conversion rights, redemption provisions, sinking fund provisions, and purchase funds and other matters. There is currently no preferred stock issued or outstanding.

Equity Financings

There were no offerings involving our common or preferred stocks during 2010. As part of an employee severance arrangement, we issued 14,690 shares valued at $38,000 during 2010.

On May 1, 2009, we closed a registered direct offering (the "Offering") of our common stock and warrants for gross proceeds of $8.25 million. Under the terms of the Offering, we sold 1.1 million units for $7.50 per unit to certain investors. Each unit consisted of one share of our common stock and one warrant, each warrant to purchase one share of our common stock at an exercise price of $9.00 per share. The warrants may not be exercised until six months after the Offering and have a term of five years. The warrants are also callable if our common stock trades at or above $22.50 per share during any 20 trading days during a period of 30 consecutive trading days, with a minimum daily trading volume of 50,000 shares each day during that 30 trading day period. Subsequent to the date of the Offering, we listed the warrants on the Nasdaq Global Market under the symbol "CBMXW". Net proceeds from the Offering, net of placement agent fees and expenses, were approximately $7.6 million. As a result of executing the Offering, the fixed conversion price of the Debenture was reduced to $7.50 per share, effective May 1, 2009.

Warrants

Outstanding warrants to purchase CombiMatrix stock are as follows:

Date of Issue	Shares of Common Stock Issuable from Warrants Outstanding as of December 31, 2010	Shares of Common Stock Issuable from Warrants Outstanding as of December 31, 2009	Exercise Price	Expiration
October 2009	30,000	130,000	$7.78	April 2010 - October 2014
May 2009	129,688	129,688	$7.50 - $9.00	May 2014 - June 2014
May 2009	1,100,000	1,100,000	$9.00	May 2014
July 2008	336,984	336,984	$11.87 - $13.65	July 2013
May 2007	959,390	959,390	$5.50	May 2012
December 2006	1,127,936	1,127,936	$8.70 - $10.88	December 2011
September 2005	—	159,648	$24.00	September 2010
Total	3,683,998	3,943,646		

On May 19, 2009, we issued three warrants (the "May Consultant Warrants") to a consultant to purchase a total of 125,000 shares of our common stock with an exercise price of $9.00 per share and a term of five years. The first warrant is for 25,000 shares and became fully vested six months after May 19, 2009. The second and third warrants (the "May Contingent Warrants") are for 50,000 shares each of common stock, and become fully vested only if our underlying stock price achieves or exceeds $12.00 and $14.00 per share, respectively, for five consecutive trading days as quoted on Nasdaq, over a period of twenty-four months from May 19, 2009. If these terms are not achieved during this twenty-four month period, the May Contingent Warrants will expire on May 19, 2011. Otherwise, if the vesting conditions are achieved within twenty-four months from May 19, 2009, the May Contingent Warrants will become fully exercisable for the remainder of the five-year term.

On October 2, 2009, we issued three warrants (the "October Consultant Warrants") to a consultant to purchase a total of 130,000 shares of our common stock with an exercise price of $7.78 per share. The first warrant is for 30,000 shares and became fully vested six months after October 2, 2009, with a term of five

years. The second and third warrants (the "October Contingent Warrants") are for 50,000 shares each of common stock, and become fully vested only if our underlying stock price achieves or exceeds $12.00 and $14.00 per share, respectively, for five consecutive trading days as quoted on Nasdaq, over a period of six months from October 2, 2009. This contingency is not achieved and the October Contingent Warrants expired on April 2, 2010.

Based on the criteria set forth by U.S. GAAP for distinguishing liabilities from equity, issuing derivative contracts in an entity's own equity and related guidance, the warrants listed above have been classified as a component of additional paid-in capital for all periods presented. Given the variable vesting terms of the May and October Consultant Warrants, mark-to-model adjustments were recognized in order to reflect changes in fair value, with said adjustments reflected as a component of marketing, general and administrative expenses in our consolidated statements of operations. The mark-to-model adjustments for the years presented, using the Black-Scholes options valuation model as well as a Monte Carlo binomial stock simulation model to determine the probability that the vesting conditions will be achieved, were not significant.

14. STOCK OPTIONS

Our employees participate in the CombiMatrix Corporation 2006 Stock Incentive Plan (the "CombiMatrix Plan"), which was approved by our board of directors in 2006. In addition, during 2005, the board of directors of our wholly owned subsidiary, CMDX, approved the CombiMatrix Molecular Diagnostics 2005 Stock Award Plan (the "CMDX Plan"). Our board of directors believes that granting employees stock-based awards is in the best interest of our company and our shareholders.

CombiMatrix Corporation 2006 Stock Incentive Plan

The CombiMatrix Plan is administered by the Compensation Committee (the "Committee") of our Board of Directors. The Committee determines which eligible individuals are to receive option grants or stock issuances under the CombiMatrix Plan, the time or times when the grants or issuances are to be made, the number of shares subject to each grant or issuance, the status of any granted option as either an incentive stock option or a non-statutory stock option under the federal tax laws, the vesting schedule to be in effect for the option grant or stock issuance and the maximum term for which any granted option is to remain outstanding.

The CombiMatrix Plan is divided into three separate equity incentive programs: a discretionary option grant / stock appreciation right program, a stock issuance program, and an automatic option grant program for outside directors. To date, the discretionary option grant program has been the primary program used in awarding stock-based compensation. Under the discretionary option grant program, the Committee may grant non-statutory options to purchase shares of CombiMatrix stock to eligible individuals in the employ of the Company (including employees, non-employee board members and consultants) at an exercise price not less than 100% of the fair market value of those shares on the grant date, and incentive stock options to purchase shares of CombiMatrix stock to eligible employees at an exercise price not less than 100% of the fair market value of those shares on the grant date. Options are generally exercisable over a three- or four-year vesting term following the date of grant and expire ten years after the grant date. The authorized number of shares of common stock subject to the CombiMatrix Plan was originally 8.1 million shares, and increases by 3% of the total number of CombiMatrix stock outstanding at the end of each calendar year beginning in 2007. At December 31, 2010, there were approximately 8.4 million authorized shares available under the CombiMatrix Plan, with approximately 6.7 million shares available for grant.

The following is a summary of the stock option activities under the CombiMatrix Plan for 2010 and 2009:

	Shares	Weighted Average Price	Weighted Contractual Term	Aggregate Intrinsic Value ('000s)
Balance at December 31, 2008	1,601,775	$7.41	9.1 years	$2,014
Granted	557,362	$7.43		
Exercised	(48,673)	$4.61		
Forfeited	(53,788)	$7.92		
Cancelled	(20,013)	$8.07		
Balance at December 31, 2009	2,036,663	$7.47	8.4 years	$1,362
Granted	661,000	$3.16		
Exercised	—	$ —		
Forfeited	(339,314)	$7.96		
Cancelled	(680,453)	$6.88		
Balance at December 31, 2010	1,677,896	$5.91	8.2 years	$ 11
Exercisable at December 31, 2009	1,036,995	$6.96	8.2 years	$ 995
Exercisable at December 31, 2010	921,125	$7.13	7.41	$ —

Information related to options granted under the CombiMatrix Plan for 2010 and 2009 is as follows:

	December 31, 2010	December 31, 2009
Weighted average fair values of options granted	$ 1.87	$ 4.73
Options granted with exercise prices:		
Greater than market price on the grant date	—	—
Equal to market price on the grant date	661,000	557,362
Less than market price on the grant date	—	—

The aggregate intrinsic value of options exercised during the year ended December 31, 2010 and 2009 was zero and $125,000, respectively. Our policy is to issue new shares to fulfill the requirements for options that are exercised. The aggregate fair value of options vested during the years ended December 31, 2010 and 2009 was $2.0 million and $3.1 million, respectively. As of December 31, 2010, the total unrecognized compensation expense related to nonvested stock option awards was $2.4 million, which is expected to be recognized over a weighted average term of approximately 2.8 years.

CombiMatrix Molecular Diagnostics 2005 Stock Award Plan

Our wholly owned subsidiary, CMDX, executed the CMDX Plan, with plan provisions and terms similar to that of the CombiMatrix Plan as described above. The authorized number of shares of common stock subject to the CMDX Plan is 4.0 million shares. At December 31, 2010, there were 4.0 million authorized shares available under the CMDX Plan, with approximately 3.5 million shares available for grant.

The following is a summary of stock option activities for the CMDX Plan for 2010 and 2009:

	Shares	Weighted Average Price	Weighted Contractual Term	Aggregate Intrinsic Value ('000s)
Balance at December 31, 2008	1,199,000	$0.41	7.2 years	$119
Granted	—	$ —		
Exercised	—	$ —		
Cancelled	(108,000)	$0.10		
Balance at December 31, 2009	1,091,000	$0.44	6.3 years	$ 75
Granted	—	$ —		
Exercised	—	$ —		
Cancelled	(640,000)	$0.49		
Balance at December 31, 2010	451,000	$0.38	4.9 years	$ 61
Exercisable at December 31, 2009	1,008,682	$0.44	6.3 years	$ 74
Exercisable at December 31, 2010	401,000	$0.36	4.9 years	$ 60

There were no option grants during 2010 or 2009 under the CMDX Plan. The fair value of options vested during the years ended December 31, 2010 and 2009 was $13,000 and $46,000, respectively. As of December 31, 2010, the total unrecognized compensation expense related to nonvested stock option awards was not significant.

Stock Option Awards Granted to Non-Employees

Stock option expense reflected in the consolidated statements of operations related to stock options issued to our non-employee scientific advisory board members and consultants are recognized at fair value using the Black-Scholes option-pricing model with weighted average assumptions as disclosed in Note 2 under "Stock-Based Compensation." For the years ended December 31, 2010 and 2009, non-cash charges recognized from stock option awards granted to non-employees was not significant.

15. QUARTERLY FINANCIAL DATA (unaudited)

The following tables set forth unaudited summary consolidated statement of operations data for the eight quarters in the years ended December 31, 2010 and 2009. This information has been derived from our unaudited condensed consolidated financial statements that have been prepared on the same basis as the audited consolidated financial statements and, in the opinion of management, include all adjustments, consisting of normal recurring adjustments, necessary for a fair statement of the information when read in conjunction with the audited consolidated financial statements and related notes thereto. Our quarterly results have been in the past and may in the future be subject to significant fluctuations. As a result, we

believe that results of operations for interim periods should not be relied upon as any indication of the results to be expected in any future periods.

2010 SUMMARY QUARTERLY FINANCIAL DATA (unaudited):

	Quarter Ended			
	Mar. 31, 2010	Jun. 30, 2010	Sep. 30, 2010	Dec. 31, 2010
	(In thousands, except per share data)			
Revenues	$ 820	$ 916	$ 1,014	$ 804
Operating expenses	3,142	20,271	2,906	2,673
Operating loss	(2,322)	(19,355)	(1,892)	(1,869)
Other income (expenses)	19,072	(3)	(1)	485
Discontinued operations	(1,414)	(5,442)	(265)	(108)
Net income (loss)	$15,336	$(24,800)	$(2,158)	$(1,492)
Basic and diluted income (loss) per share	$ 2.02	$ (3.26)	$ (0.28)	$ (0.19)

2009 SUMMARY QUARTERLY FINANCIAL DATA (unaudited):

	Quarter Ended			
	Mar. 31, 2009	Jun. 30, 2009	Sep. 30, 2009	Dec. 31, 2009
	(In thousands, except per share data)			
Revenues	$ 727	$ 606	$ 603	$ 637
Operating expenses	3,337	3,053	2,826	2,500
Operating loss	(2,610)	(2,447)	(2,223)	(1,863)
Other income (expenses)	(2,024)	(367)	448	(311)
Discontinued operations	(1,498)	(1,817)	(1,526)	(1,399)
Net loss	$(6,132)	$(4,631)	$(3,301)	$(3,573)
Basic and diluted loss per share	$ (0.97)	$ (0.65)	$ (0.44)	$ (0.47)

16. SUBSEQUENT EVENT

On February 23, 2011, pursuant to the authority granted under our 2006 Stock Incentive Plan, our Compensation Committee adopted a 2011 Executive Performance Bonus Plan (the "Bonus Plan") to provide certain members of our senior management the opportunity to earn incentive bonuses based on our attainment of specific financial performance objectives for 2011. Our Compensation Committee determined that our Chief Executive Officer, Judd Jessup, our Chief Financial Officer, Scott Burell, our Senior Vice President of Sales and Marketing, Dan Forche and our Vice President of Operations, Lony Lim, are eligible to receive such awards under the Bonus Plan.

A participant's bonus under the Bonus Plan will consist of a combination of cash and equity incentives and will be based on achievement of between 90% and 200% of our 2011 net revenue target as determined by our Compensation Committee. A participant's cash bonus will be an amount equal to (a) times (b), where (a) equals the participant's annual base salary and (b) equals a specified percentage of the

participant's salary (ranging from 10% to 80%) that would be payable if we achieve a certain percentage of the target net revenue. In addition, on February 23, 2011 (the "Grant Date") and pursuant to the terms and conditions of the Bonus Plan, our Compensation Committee granted performance stock options to Messrs. Jessup, Burell, Forche and Lim to purchase 160,000 shares, 76,190 shares, 86,857 shares, and 66,667 shares, respectively, of our common stock under our 2006 Stock Incentive Plan. These performance stock options will vest only upon achievement of between 90% and 200% of the 2011 net revenue target as determined by our Compensation Committee. The amounts granted represent the maximum number of options that could vest, assuming the 200% target level is achieved. Assuming a portion or all of the performance options are deemed vested based upon achievement of the 2011 revenue target, one-third of the performance stock option will immediately vest, one-third will vest on the second anniversary of the Grant Date and the remaining one-third will vest on the third anniversary of the Grant Date. The exercise price of these options was $2.28, which equaled the closing price of our common stock as reported by the Nasdaq Capital Market on the Grant Date.

Cash bonus payments, if earned, will be paid once our auditors have completed their annual audit and our actual 2011 net revenues are known. In order to receive a bonus payment, the participant must be employed by us at the time bonuses are computed and distributed.